# Baltic Security and Defence Review

Volume 14, Issue 2 2012

Baltic Security and Defence Review is the publication of the Baltic Defence College

ISSN 1736-3772 (print)
1736-3780 (online)



Assistant editor and layout: Berit Marksoo
Cover and print: Tartu University Press
www.tyk.ee

Electronic version of the Baltic Security and Defence Review can be accessed on the website of the Baltic Defence College at www.bdcol.ee
All articles of the Baltic Security and Defence Review are also available through the International Relations and Security Network (ISN) at www.isn.ethz.ch

All inquiries should be made to the Baltic Defence College, Riia 12, 51013 Tartu, Estonia, ph: +372 717 6000, fax: +372 717 6050, e-mail: info@bdcol.ee

## Contents

# The Polish Air Force Operations in Air Policing over the Baltic States and the Future of the Mission

*By Major General (ret.) PhD, Krzysztof Załęski*
*Air Force Academy, Dęblin, Poland*

The end of the 20th century was significant for Europe as the dependencies of the former bilateral world were swept away. In the eastern part of the continent new states emerged, among them freshly independent countries of the Baltic States: Estonia, Latvia and Lithuania. At the same time, they began their efforts to build new, self-governing states to be fully integrated into Europe. National security emerged as one of the main challenges; especially an understanding of an ongoing threat was a concern that was still in the minds of the people who were ready to face any challenger. Currently, national security system can be described as, "*a state of balance of the existing threats and the state's defence potential that allows the state to retain its territory, organize protection of its citizen, and provide support to the vital economic and political interests of the state by means of various available resources that also include economic, political, diplomatic and military means.*"[1] Thus, it is a multidimensional issue that concerns all the elements of power.[2]

One of the main efforts of governments has been to create capable armed forces and it this is a task complicated by the lack of resources. At the start of the emergence of the new Baltic States governments the main interest was to establish and maintain closer relations with the Western nations and this became the basic principle of the foreign policy of the all three nations. This has been successful mainly because of the good political climate and the will of both European Union and NATO nations to cooperate with the three Baltic States. This policy was closely related to the geopolitics of the region and was attentively observed by the Russian Federation. The flights of Russian bombers into the airspace of the Baltic States are a constant interest in that part of Europe. The lack of airspace security was noted by NATO and NATO responded to the potential threat in order to show its commitment to the region. In this context NATO activated the air policing mission. However, it is also important to note that there is no aggressive intent against Russia on NATO's part related to the mission. The aim of air policing "*is going to be a general*

*patrolling exercise. We consider Russia to be our friends, by the way.*"[3] However, incidents related to the airspace above Baltic States are still taking place. For example, on 17 February, 2012, "*two German fighter jets, (F-4 Phantoms) …, identified and escorted two Russian aircraft TU-22M flying over the Baltic Sea.*"[4] This was a routine and preannounced flight. However, there are also "unannounced" flights that take place in the framework of training. This is especially the case when the Baltic States' neighbours conduct large scale exercises in the area.

Currently there are ongoing discussions regarding the future of the air policing mission over three Baltic States. The purpose of this article is to present some possible long-term solutions to provide effective air security in the north-east flank of NATO territory. The first part of the article presents the origins of the mission to include some restraints related to very limited air defence capabilities of the air forces of the Baltic States. The second part will present the Polish Air Force's contribution to air policing mission to highlight the value of performing this mission for the contributing nations. This task is beneficial not only when air space protection is considered, but also includes many positive benefits not only for NATO and the Baltic State but also for all the member s of the Alliance. This article will also discuss future options that take into consideration the multidimensional approach of NATO, the position of the Baltic States, as well as the limitations imposed by technical and infrastructure issues. The current developments are presented along with recommendations regarding the future of the air policing mission, with an emphasis on the position of the political and military leadership of Estonia, Latvia and Lithuania.

## The origins of air-policing mission in the Baltic States

Upon independence in the early 1990s the three Baltic countries began to create armed forces to face the possible threat in all the dimensions of the contemporary battle field. The service developed the most quickly were the land forces founded on trained officers and NCOs. Then came the acquisition of equipment with the help of the Western countries, which is still ongoing. The Baltic States forces were based on light infantry units supported by the creation of paramilitary National Guard type force. Some international exercises took place such as the "Baltic Challenge" in Klaipeda in 1998. These exercises were designed to demonstrate the newly begun cooperation and shared security concerns. At the same time as the

land forces were developed, the Baltic States developed navies with some basic capabilities to patrol territorial waters and exclusive economic zones.

A much more complicated situation occurred in the case of developing air forces. At the end of the Soviet era there were few real air capabilities available although there were some qualified personnel on hand. There was infrastructure left after Soviet military left the Baltic countries, for example Tartu Air Base (Raadi Airfield), which had been the home base of the Soviet Air Force 132nd Heavy Bomber Aviation Regiment. But this base was in poor condition and the land has been turned over to the used for the new Estonian National Museum. For developing the air forces the main Baltic States' effort was to improve the Ämari Air Base and to make it ready to support NATO air forces, to include support of standard NATO equipment and services in case it becomes necessary to offer host nation support. In Lithuania the most important air effort was to adapt the Šiauliai International Airport (Zokniai Airport) as this had been one of the largest military airports in the former Soviet Union. In spite of some problems, after reconstruction it became fully operational in 2006 and met all the necessary international standards.

**Fig. 1. The three Baltic States and Šiauliai (Zokniai) International Airport.**

The international cooperation of three Baltic States continuing successfully, first in the framework of the "Partnership for Peace" and later in 2004 when all three Baltic States joined NATO. At the same time the air, land and navy domains also became NATO areas of responsibility. However, the air forces of respective Baltic Nations' do not have the capabilities to provide security for their national airspace as they are equipped with only a small number of transport aircraft and some helicopters[5]. The real capabilities are related to the air surveillance systems in the framework of international cooperation and the Baltic Air Surveillance Network (BALTNET) project. As NATO's political and military leadership was fully aware of these limitations the decision was taken in March 2004 to engage air forces of respective countries of the Alliance to provide the air space coverage of Estonia, Latvia and Lithuania.

Air policing is understood as, "*the use of interceptor aircraft, in peacetime, for the purpose of preserving the integrity of a specified airspace*"[6] and such the deployments "further demonstrate *NATO's collective security and defence umbrella and the cohesion of the Alliance.*"[7] The mission began on 29th March 2004 and it has since been carried out by combat aircraft assigned from NATO nations in rotations of four months. According to the NATO political decisions this mission is to be conducted until the appropriate capabilities are acquired by the three Baltic States.

The mission is still ongoing and so far 14 countries have participated in the mission to include: Belgium, Denmark, the UK, Norway, Netherlands, Germany, the US, Poland, Turkey, Spain, Romania, Czech Republic, Portugal and France. The decision was taken on the basis that, " *for member nations not having the full range of Air defence (AD) assets in their own militaries, such as Luxembourg, Iceland, Slovenia and the Baltic States, agreements exist to ensure a single standard of security within NATO's Area of Responsibility.*"[8] In the framework of the Joint Forces Command Brunssum its Allied Air Command Ramstein is designated as the air command element to run the air policing mission and also serves as the air advisor to the commander JFC Brunssum in matters of Baltic Air Policing. This is recognized as, "*an example of Smart defence, demonstrating how the Alliance can balance political and military needs in an economically efficient manner.*"[9] The Baltic Air Policing mission is not the same as Iceland Air Policing mission as, "*NATO conducts air policing missions in Iceland as decided by the Alliance in July 2007 in order to ensure that air sovereignty is maintained as well as familiarity within the*

*Alliance of Iceland's environment. Missions are carried out by NATO Member States at an average three times a year, for 2 to 3 weeks at a time*" [10] from Keflavik Air Base. The mission is related to the fact that Iceland does not have own air force.

**Polish Air Force involvement in the air policing mission**

Poland also conducts missions abroad and they are important part of the international involvement of Polish Armed Forces. The international missions influence the way the Polish and NATO services are changing.[11] The Polish experience is extensive and consists of many operations of widely varying types as well as combat missions. Poland's involvement in Iraq and the current operations in Afghanistan have greatly influenced the modernization of the Polish forces. The Polish Air Force (PAF) has been significant contributor to these missions as a force multiplier serving in difficult environments and facing tough opponents. Presently, beyond the national borders, Polish aviation has executed tasks in three military contingents. Two of these are the permanent missions within ISAF and one is conducted in the Baltic States. The permanent military detachment in Afghanistan includes: an Autonomous Air Group (AAG) equipped with helicopters, stationing in Ghazni, and an Air Team (AT) having at its disposal two CASA – 295 aircraft, stationed at two bases, Kabul and Cracow. The Polish Military Contingent (PMC)[12] supporting the air policing is treated as a rotational one and it carried out the mission tasks with four Mig 29 aircraft stationed within the national borders of the Baltic States in rotation with other NATO nations in a two years cycle. The air policing mission in the Baltic States is particularly important for the Republic of Poland's Air Force because it is organized through its own means as an independent operation of great importance for regional stabilization and security in this part of Europe. This significance is also acknowledged by NATO, its attitude confirmed by the long history of the mission. Such circumstances allows for conducting some air training, maintaining aircrew skills, deploying and employing the equipment, and ensuring the ongoing functioning of the Polish Military Contingent as a military unit according to the requirements of national regulations.

According to the "*Extended Plan of Rotations Until 2014*", approved by the NATO Military Committee, airspace security is carried out on a permanent basis. So far it has been a success. The Republic of Poland's Air Force, operating as the ORLIK Polish Military Contingent (PMC), has

participated in the air police mission three times at various periods: in winter within the framework of the NATO forces 8th rotation (from 1 January to 31 March 2006), in spring during the 16th rotation (from 15 March to 30 June 2008) and in summer during the 23rd rotation (from 1 May to 31 August 2010). This allowed for the Polish units a good chance to familiarize themselves with the mission's climatic and geographical factors during various seasons of the year. Conduct of the mission in winter and spring could be quite difficult, as the aviation rules and the airfield infrastructure at the Šiauliai (Zokniai or Szawle) Airfield was different when compared to permanent stationing and alternate airfields the units normally used. The PMC's aircraft executed the air policing mission in the airspace of Lithuania, Latvia and Estonia kept on Quick Reaction Alert (QRA) shift two MiG-29 aircraft at 15 minutes readiness, and the other two in a state of 60 minutes readiness for takeoff under the control of the Combined Air Operations Centre (CAOC Uedem). The force has conducted air policing missions within NATO's Integrated Air defence system. The combat alert shift was held in a 24/7 system.

The Polish Military Detachment authorized strength for each rotation was identified by the decision of the President of the Republic of Poland. During the first rotation, the PMC counted some 70 personnel. In the next rotations, based on the experience gained from the earlier missions, it was increased to approximately 100 personnel, including three fighter controllers in Control and Reporting Centre (CRC) in Karmelava. The total strength, approved for the second and third rotation was considered sufficient. The main objectives of the mission are defined as follows: to maintain the assigned forces in their required combat readiness state; to reconnoiter the airspace situation and protect the Baltic States' airspace, including the population and the armed forces; and to provide assistance to aircraft crews in emergencies.

In the process of planning the PMC ORLIK organizational structure showed the need to have a two-shift status for all key specialists. Their constant participation on combat alert shifts was taken into consideration. In order to generate the PMC's authorized strength, to include proper training and combat harmonization, before deploying to the mission's operational area the number of personnel was set at 50% more than the planned [personnel strength for the mission. This solution provided the opportunity to select the best candidates for the mission and ensured the personnel rotation to carry out the tasks if necessary.

Exercising command over the two QRA aircraft to conduct the air police mission in the airspace of the Baltic States was provided by CAOC Uedem. The CAOC commander was authorized to exercise Tactical Command (TACOM) over the allocated forces. Command over the rest of the Polish Military Contingent's forces was exercised within a national system using the Armed Forces Operational Command based on the Air Operations Centre (AOC) as a national entity exercising command over the Air Force.

**Fig. 2. Polish MiG-29 from the 1st Tactical Air Squadron at Minsk Mazowiecki during the "Orlik 3" mission in Šiauliai**

(Source: B. Glowacki, *Polish military continues expeditionary focus*, the Flightglobal, 08 June 2010, http://www.flightglobal.com/news/articles/polish-military-continuesexpeditionary-focus-342796/ Picture: Tomasz Korytowski/Polish Air Force)

In the framework of the first mission, the total flight hours amounted to approximately 110 hours. This was mainly due to the exceptionally difficult winter atmospheric conditions in the area of operations as well as by small and insufficient number of the Polish Military Contingent's personnel to meet the mission requirements. In the second and third rotation the total flight hours accomplished amounted to almost 250 hours and this result can be considered as sufficient for this type of mission. For example, during the second rotation PMC Orlik flew 69 training sorties and 170 patrol hours. Such training "*included practical intercepts against Lithuanian helicopters and transport aircraft, and mock dogfights*

*with its one Aero Vodochody L-39C*"[13]. The conditions of stationing, the living standards and the support provided by the host nation constantly improved in order to meet the mission requirements. The following conclusions can be drawn from the missions executed by the PMC ORLIK:

- PMC ORLIK executed its tasks well in the airspace of the Baltic States and confirmed the will to fulfil allied solidarity within the framework of the NATO Integrated Air defence System (NATINADS);
- prognoses for the assessment of the situation in the area of the Baltic States and the activity of the adjacent states' air forces were not accurate enough;
- Polish – Lithuanian cooperation turned out to be very successful during the conduct of the Air Policing mission. The Lithuanian Air Force provided complete HNS support to the Polish Military Contingent;
- considerable airspace operational experience has been gained from the air policing mission execution in the Baltic States. The requirements identified in the domain of logistic support are needed to ensure that the component's operations are feasible beyond national borders.

Thus, the air policing mission had some valuable aspects which based on the practical involvement of the Polish Air Force abroad, supported some changes within the service. The changes implemented are as follows: reorganization of air bases based on squadrons stationed as independent units into a new type of air base to create a unitary component able to act inside the homeland as well as outside country's borders; modernization of the command and control system by reducing the number of command posts, while at the same time improving the command environment by implementing the LINK16 standard and wideband data transmission lines; and finally improving the logistics capabilities and adapting them to better cooperate with other NATO countries by creating modular subunit structures. In short, the air policing mission has also proved important for the participating nations as they have used the opportunity to operate in a new environment and to improve the skills of all the personnel involved.

The Baltic States' air policing mission will be continued in 2012 during the 29th rotation from May to August and the next mission is planned in 2014 during the 35th rotation from May to August. Poland recognizes the task as important both for NATO and Poland. The mission is fully supported by political leadership of the nation and appropriate capabilities of Polish Air Force are dedicated to fulfil such the support for three Baltic States.

**The future options for air policing**

Essentially the future of the Baltic States' air policing mission is a rather complex political - military issue. Taking into account that so far the rotation plan has been agreed and approved only to 2018 it can be expected that difficulties will arise in generating forces for subsequent rotations after that year. This will be affected by the widespread restructuring of NATO air forces that will include a decrease in both air force personnel and the number of aircraft in many countries. This will also be the case in Poland. On the other hand, negative predictions regarding the behaviour and attitude of adjacent states have proven to be false as no significant incidents in the airspace involving other nations' aircraft have been observed, at least during the Polish rotations. This allows for a different perception of the further possibilities of performing the Baltic States' air policing mission as several options for the future are possible.

The first option is related to establishing an international Lithuanian – Latvian – Estonian air defence squadron permanently stationed at one airfield, or periodically at various airfields, within national borders of these three states. Aircraft could be obtained by the purchase of new or second-hand multirole aircraft acquired from the NATO nations that are reducing the number of fighters in their air fleet. This is a basic option in conformity with the previous expectations of the NATO Military Committee. However, this option has some significant shortcomings. Acquisition of new or second-hand combat aircraft is expensive. Based on the Polish experience of buying one squadron of properly equipped F-16s the costs are about a billion Euros, depending on the situation. The question also relates to the necessary quantity of such aircraft and, of course, the numbers and types of armament that will be suitable for a wide range of likely missions. At the same time, the total costs include the necessary investment in infrastructure to equip a designated airfield properly and also to train pilots (two crews per aircraft as a minimum), as

well as providing ground services. The total costs are growing significantly, what is a consideration for the current EU and regional financial situation. The second hand aircraft option is a high cost solution.

To ensure effective airspace security effective for such area of responsibility (territory of three countries), it would be necessary to buy more than one squadron (16 aircraft). It would be necessary for effective air policing to have at least two to three squadrons permanently operational stationed on at least two air bases. Additionally, it is necessary to consider daily aircrew training and maintenance time for the aircraft to have a least 0.8 of them technically operational (ready to fly). The type of aircraft suitable for air policing mission could be the F-16 or Eurofighter or Grippen class if the air units are to be able to cooperate fully with NATO's air forces and be able to conduct other missions than just air policing. Currently the three Baltic States do not have the funds to dedicate to this and this situation will last for several years. It is necessary to highlight that from the time the decision to buy new fleet of aircraft is made to the time of achieving full operational capability is at least five years, depending on air training and other actions necessary to develop the full capabilities for air combat.

The next solution is connected with fulfilling the air policing mission within the current involvement of NATO nations. However, depending on the requirements and capabilities of the sending nations, the time of the aircraft stay in the Baltic States will be reduced to two – three or four weeks during the planned rotation. This concept follows the rules of the air policing mission in Iceland. However, it should be noted that the geographical location of the Baltic region is significantly different and it involves three NATO members that expect the constant presence of aircraft in the area. This solution also has some logistics implications and careful planning in close coordination with force contributing nations will be necessary. Additionally, such documents as memorandums of understanding (MOU) and a Status of Forces Agreement (SOFA) would be necessary to be revised with each participating nation.

Another solution can be based on signing bilateral arrangements with one or several NATO members-adjacent states for performing the air policing mission. In this case full reimbursement of the mission's costs must be ensured. This also includes the costs of labour and reimbursement of the flight hour costs and the spending resulting from the use of support

equipment. Again, this approach would require bilateral talks with the participating nations that would be ready to support the mission.

Maintaining the air policing mission from permanent bases in the adjacent states can be also considered. However, taking into account the distance from the permanent aircraft base, the tactical radius of aircraft and the command systems' reaction time such an arrangement would not offer the desired results. That option could consider Poland as possible provider of infrastructure, personnel and equipment. Nevertheless, the three Baltic States should consider development of their infrastructure as alternative aircraft stations. In this case the surveillance system should be significantly improved to meet requirements of such the option. If the Polish airfields are under consideration, it will encompass only Lithuania's borderland, which can be reached in 35 – 45 minutes. The Kaliningrad District is also a problematic issue as this region hinders execution of this task from the airfield situated in Malbork.

A further option would be to extend the previously proposed option by establishing a permanent air task group with the aim to support aircraft based at the Siauliai (Szawle) Airfield and preparing it to provide basic "cross servicing" assistance to all types of aircraft from the adjacent states. One can consider that to fulfil the basic mission only the demonstration of allied forces presence at the airfield and in the airspace of the Baltic States is enough. This demonstration could be based on the number of missions of one day duration or flights performed under day or night conditions, executed two or three times a week. The second QRA pair of aircraft could be assigned temporarily in accordance with the flight schedule coordinated by CAOC – 2 UDEM. In case of a crisis it would be possible to almost immediately redeploy the QRA a/c pair remaining on an alert shift to the Siauliai Airfield.

There are more radical options such as suspending the Baltic States' air policing mission if the relations between NATO and Russia would allow doing so. But this is highly unlikely and generally unacceptable to the Baltic States. This is because the airspace would be undefended and that is unacceptable for political and military reasons. It is also against NATO principles, as "*the integrated air defence is a NATO core peacetime task and the visible expression of Alliance solidarity is of key politico-military relevance*"[14]. So, inside Alliance such a policy would face strong opposition.

Finally there is the option to conduct the mission with no changes, following the current way of performing a/c alert shifts. The Air Policing mission would continue until operational capabilities are acquired by the Baltic States. Based on current experience, Poland will support this option and the Polish Air Force will continue fulfilling Coalition duties in the frame of subsequent rotations. The decision to extend the mission up to 2018 shows that such an option is comfortable and acceptable for NATO, at least at the moment. But still, it is temporary solution.

It can be clearly seen from the considerations presented that the issue of the Air Policing mission is a complex one. There are no simple satisfactory answers to the questions of all the involved parties. Therefore, this issue should be subject of detailed discussions among NATO authorities and all interested parties should join such discussions. This is because a long-term course of action must be decided, especially as the situation in Europe is still variable. For example, Russia is considering spending significant resources to improve armed forces up to 2020. Among many aims, the priority of that ambitious program is the development of its Air Force, including "*600 jets and 1,000 helicopters"*, to enhance infrastructure in Kaliningrad region, and to upgrade strategic missile forces.[15]

**Current developments**

In 2010 NATO made the important decision to extend the Air Policing mission up to 2014 with the future timeline to be discussed in the near future. The three Baltic States have made the decision to consider such an extension to at least to 2018 or to even ask for the possible decision to establish a permanent NATO mission. Since the common will was strongly supported by both the political and military leadership of all three nations those leaders looked for international support among the NATO nations. The decisions relating to Air Policing were also related to financial crisis, which was very painful in the region and caused heavy cuts in military budgets. So, any attempt to build national or multinational air force capabilities was impossible to consider at that time and there was no support for this.

At the same time, the shortcomings related to airspace security were recognized by the political and military leaders in the Baltic States. Estonian defence Minister Mart Laar, who met in August 2012 with Danish defence Minister Gitte Lillelund Bech, expressed his appreciation

for the Danish contribution to the Baltic countries' air space security. It was related to the fact that starting from September 1, 2011 the Danish Air Force, using four F-16 fighters, took the responsibility for airspace security to the Baltic countries for a four month period[16]. During the meeting Bech noted that, "*being small countries, Estonia, Latvia and Lithuania will apparently not be capable of developing their own fighter planes capability in the foreseeable future, as a result of which we are grateful for our NATO allies, including Denmark, for the air space security provided until the present*"[17]. The discussion also touched on the issues relating to opportunities of closer cooperation between Estonia and Denmark in order to improve the Estonian defence capacities to face future challenges to NATO and Estonia. In addition, an important ally of the region, the United States of America, is supporting the mission as expressed in a letter by Secretary of State Hillary Clinton to the Lithuanian Minister of Foreign Affairs Audronius Azubalis, stating that "*The United States is pleased with the decision of NATO Permanent Representatives to continue Baltic air policing beyond 2014. The mission is a good example of NATO Allies sharing responsibilities and capabilities as we provide security for each other, especially in a time of tight budgets*"[18].

The political efforts to influence the decision about air policing were presented during meetings at different levels on several occasions. The Baltic States desired to see that the NATO air policing mission become permanent as this mission was recognized as, "*one of cornerstones of Baltic security within NATO*" as Latvian Minister of Foreign Affairs Edgars Rinkevics stated. These wishes were brought to the NATO Summit in Chicago as a possible forum to make decisions. The countries have also been aware that, "*it is a decision of 28 NATO allies, concerning this mission becoming permanent, but it is also our readiness, what we have expressed, to take a greater share of host nation support, to support this mission in this way, and certainly taking into account the current economic situation in many NATO countries*"[19]. As a result, and due to a solid understanding the importance of the mission, the three Baltic States are ready to improve the quality of the host nation support. In 2011 the total cost of the mission was about 2.2 million Euros and there is an intent to gradually increase that amount up to 3.5 million Euros per year in 2015. The money is divided equally among three Baltic States. The increase will help "*to expand the volume of services provided to Allied contingents and fighter-jets deployed at the Lithuanian Air Force Aviation Base in Siauliai*", and also for "*additional flights of Spartan for deployment and re-deployment of air- policing contingents, reimburse for the bulk of accommodation costs,*

*as well as allocate more funds for communications and utility services, de-icing*"[20] as announced by Lithuania's defence Minister Rasa Juknevičienė. Additionally, "*compensation of part of costs of aviation fuel should be started as of this year.*"[21] Such costs are still much lower than the cost of acquiring fighters by Estonia, Latvia and Lithuania.

Currently the reliability of airspace surveillance is under consideration as the limitations in that area are well known to the political leaders in the region. The political leaders want the airspace surveillance improved and are willing to contribute in the airspace security. For this, "*the Baltic States are planning to spend about 6.4 million Euros by 2014 on the upgrading of an obsolete airspace patrolling system*"[22] as Latvian defence Ministry state secretary Janis Sarts mentioned. For the future concept the Baltic nations are holding talks with experts and possible suppliers of technologies. The need for a new concept is because, "*one of the systems ensuring the airspace patrols has grown obsolete, and to be able to provide their contribution, the Baltic States must upgrade it.*"[23] Countries are also investing into their air defence systems' in an attempt to enhance such the capabilities. An example of this is the decision by the Estonian defence Ministry to buy "*from Finland firing units, training and servicing equipment as well as spare parts for the Mistral air defence system, along with ship mounted 23 millimeter anti-aircraft guns ZU-23-2.*"[24] Thus, the current efforts are particularly focused and long-term oriented.

The decision to extend the mission was taken on 08 February 2012 and it is currently planned to last up to 2018 following the principles previously noted.[25] The decision is still temporary and, "*the 28-nation alliance will seek a 'sustainable long-term solution' to maintain planes over the three nations, which do not have their own fighter jets,*" as "*this mission continues to demonstrate the Alliance's commitment to collective defence and solidarity for all its members*"[26] as stated by NATO Secretary General Anders Fogh Rasmussen. The decision was welcomed by three Baltic States and the Lithuanian defence Minister Rasa Juknevičienė strongly endorsed it, underlining it as an example of the NATO's "Smart defence" concept. Especially, as Latvian defence Minister Artis Pabriks estimated, "*it would cost 1.5 billion Euros (almost $2 billion) for Baltic nations to police their own skies*"[27]. That money can be spent for other purposes and to develop key capabilities in other areas. The recommended option would be to consider the mission as permanent one, as in the foreseeable future the three Baltic States will not be able to provide security for their own airspace.

It is worth considering whether it is more appropriate to ask the Baltic States to contribute to other areas of responsibility as a modern Air Force is really expensive to equip and challenging to maintain. The whole issue is also connected with the need for a serious debate about a common stance of the Baltic States in relation to the air defence concept. Following the concept of the "Smart defence" the situation requires NATO level considerations as how to use regional resources in the best manner to improve airspace security. All NATO members that are contributing to the air policing mission should reconsider the advantages and disadvantages of a future commitment. A common solution requires common decisions based on a focused approach to a complex problem. From the Polish security perspective a permanent mission would be a reasonable option as it could be also associated with the protection of the Polish airspace. At the same time, the Polish Air Force and also other contributors can demonstrate their support and the unity of the Alliance. Moreover, such stable form of assistance would present a path for all the participants along with a program of constant training and familiarization with the region. Such a solution would also strengthen the political-military importance of exercises such as "Baltic Host 2012" which took place in June 2012 simultaneously in Estonia Latvia, and Lithuania. This approach on improving the regional host nation support capabilities would also include the element of a lasting enhancement of the regional readiness to base a reinforced air component if that were necessary to face any type of threat.

[1] K. Zalęski. *The Evolution of the Security Notion and Its Influence on the Concepts of Armed Forces Employment*, *Baltic Security and Defence Review*, Volume 13, Issue 1, Tartu 2011, p. 10.

[2] NATO defines the elements of power as: Political, Military, Economic, and Civil or PMEC. USA doctrine follows a different format, which is DIME framework (Diplomacy, Informational, Military, and Economic or DIME) to analyze national power. See: *Allied Command Operations Comprehensive Operations Planning Directive (COPD)* Interim Vol. 1, Supreme Headquarters Allied Power Europe, Brussels, December 17, 2010. Annex A, pp. A-4 - A-6.

[3] D. Bases, *Iceland sees more Russian flights in N. Atlantic*, Reuters News Agency, New York, 14 March 2008, http://www.reuters.com/article/2008/03/14/us-iceland-monitor-flights-idUSN1461960020080314 accessed 21 January 2012.

[4] *NATO fighter jets sent to Baltic sky over Russian bomber flights,* Vilnius 17 February 2012, Baltic News Service accessed 03 March 2012.

[5] More information about Air Forces of Baltic States see websites: Estonian Air Force - http://www.mil.ee/index_eng.php?s=ohuvagi, Latvian Air Force - http://www.mil.lv/en.aspx# and Lithuanian Air Force – http://kariuomene.kam.lt/kariuomene/en/structure_1469/air_force.htmland accessed 12 February 2012

[6] *AAP-6 (2008) NATO Glossary of Terms and Definitions*, North Atlantic Treaty Organization, NATO Standardization Agency (NSA) 2008, p. 2-A-10, accessed 16 January 2012.

[7] *Air Policing*, Website of the Allied Command Operations, Mons, http://www.aco.nato.int/page142085426.aspx accessed 20 January 2012.

[8] Compare: *Baltic Air Policing*, Website of the Allied Joint Force Command, Brunssum, http://www.jfcbs.nato.int/jfcbrunssum/baltic_air_policing.aspx, accessed: 20 January 2012.

[9] Ibid.

[10] *An Executive Summary of the Report of Össur Skarphéðinsson Minister for Foreign Affairs to Althingi the Parliament of Iceland*, Ministry of Foreign Affairs, Reykjavík 14 May 2010, p. 7. http://www.mfa.is/media/Skyrslur/Executive-summary.pdf. accessed 05 February 2012.

[11] The author, as a former Chief of Staff – Deputy Commander of the Polish Air Forces, for many years was personally involved in the air force planning process and observed the implementation of new standards that influenced the necessary changes. He also supervised the Polish Air Force involvement in the air policing mission in the three Baltic States. All the remarks and conclusions contained in the article are mostly based on personal experience gained during military service on different postings in the air forces and the armed forces.

[12] More information about PMC Orlik available on the Website: http://www.airpolicing.wp.mil.pl/pl/3_109.html

[13] B. Głowacki, *Polish military continues expeditionary focus,* the Flightglobal, 08 June 2010, http://www.flightglobal.com/news/articles/polish-military-continues-expeditionary-focus-342796/ accessed 20 January 2012

[14] *Icelandic Airspace Protection 2.0*, based on an article by N. Thomas, *Schutz des isländischen Luftraums 2.0*, German Air Force Press and Information Centre, 05 March 2012, http://www.luftwaffe.de/portal/a/luftwaffe/!ut/p/c4/NYy7CgIxEEW_ZT_ATBZxWewM24hdQDR2YzbEwObBMJrGjzcpvAdOc-DCAxoJP8Ejh5xwgzsYG47PKrYKt15XJ2xOjrvZJQ7NnpAziZKJt17eRK2IsI

KR46LkJP8bv7PW6no57KflrHQ_LIQ-IpiUdxbty0GJca6nYfgBVteNNA!!/ accessed 12 March 2012.

[15] *Russia plans $650bn defence spend up to 2020*, BBC News, 24 February 2011, http://www.bbc.co.uk/news/world-europe-12567043 and also: S. Pyatakov, *Russia to Modernize All Military Airfields by 2020*, RIA Novosti, Moscow, 26 January 2012. http://en.rian.ru/mlitary_news/20120126/170964645.html accessed 12March2012.

[16] *Denmark to Protect Baltic Countries' Air Space*, Tallinn 25 August 2011, Baltic News Service accessed 15 January 2012

[17] *Estonian DEFMIN Thanks Denmark for Air Space Security*, Tallinn, 24 August 2011, Baltic News Service accessed 15 January 2012.

[18] *Clinton welcomes NATO's decision to extend Baltic Air Policing mission in letter to Lithuanian formin,* Vilnius 07 March 2012, Baltic News Service accessed 14 March 2012.

[19] *Baltic States to Seek Permanent NATO Air Policing Mission – Ministers*, Vilnius 04 November 2011, Baltic News Service accessed 17 January 2012.

[20] *Baltic States to boost funding of NATO's air-policing mission by more than 50 pct in 3 yrs*, Vilnius 17 February 2012, Baltic News Service accessed 03 March 2012.

[21] Ibid.

[22] *Baltic States to Spend Euro 6.4 mln on Upgrading Obsolete Airspace Patrolling System*, Riga 23 August 2011, Baltic News Service accessed 15 January 2012.

[23] Ibid.

[24] *Estonian DefMin buys anti-aircraft weaponry from Finland,* Tallinn 11 February 2012, Baltic News Service accessed 03 March 2012.

[25] *NATO Extends Baltic Air Policing Mission to 2018*, Agence France-Presse, Brussels 08 February 2012 http://www.defensenews.com/article/20120208/DEFREG01/302080010/NATO-Extends-Baltic-Air-Policing-Mission-2018 accessed 15 February 2012.

[26] Ibid.

[27] Ibid.

# Operation Unified Protector: Triumph or Warning Sign?

*By Colonel Daniel F. Baltrusaitis, USAF, PhD*
*and Professor Mark E. Duckenfield, U.S. Air War College*

The commitment of NATO to quell civil unrest in Libya in February 2011, and protect the civilian population from the regime of Col Muammar Gaddafi, ushered in a new era of NATO cooperation. The naval and air campaigns supporting UN Resolutions 1970 and 1973, which eventually merged into Operation Unified Protector (OUP), were a test of NATO's resolve to conduct "out of area missions" and a test of European collective action with U.S. leadership taking a "back seat" role. The success of OUP has led to the operation being hailed as an example of NATO resolve, especially with limited U.S. participation.[1] However, weaknesses in the coalition emerged which question the ability of Europe to deal with even relatively minor security interventions without U.S. aid and assistance. Former U.S. Secretary of Defence, Robert Gates, before a meeting of the Security and Defence Agenda in Brussels, stated that NATO had finally become a two-tiered alliance‖ divided between those few allies capable of engaging in high intensity combat missions and the overwhelming majority members that can only contribute extensively to soft power non-combat oriented missions. Gates highlighted the Libyan campaign as an example of the problems for NATO resulting from lacklustre European defence spending.[2] A NATO after action assessment reinforced this opinion noting that serious shortfalls in Intelligence, Surveillance, and Reconnaissance (ISR), aerial refuelling, command and control capability, and precision weapons hampered NATO's ability to successfully prosecute the operation in Libya.[3] Such critique of a relatively minor military operation raises doubts on the ability of NATO to prosecute future military operations, especially without U.S. military and political leadership.

One method to mitigate NATO shortfalls is to pool expensive resources and capabilities to lessen the burden to individual states. According to NATO, "Smart defence is a concept that encourages Allies to cooperate in developing, acquiring and maintaining military capabilities to meet current security problems in accordance with the new NATO strategic concept. That means pooling and sharing capabilities, setting priorities

and coordinating efforts better."[4] Smart defence, established at the Lisbon summit in 2010, allows NATO nations to have access to capabilities that they could not afford individually, and therefore achieving economies of scale by pooling of resources. Examples of current smart defence resources include the NATO Airborne Warning and Control System (AWACS) and the Strategic Airlift Capability program. The crisis in Libya demonstrated to NATO a continued need for modern systems and facilities, and for less reliance on the United States for advanced military capabilities hence Smart Defence is a right step towards a coherent European security policy. This paper will argue, however, that NATO is unprepared for military intervention in situations where the U.S. is hesitant to provide critical enabling military capabilities and that NATO smart defence has significant limitations as currently executed. These implications give serious doubt to the overall effectiveness of NATO without U.S. leadership and also of the European Union's Common Security and Defence Policy (CSDP).

## Coalition Theory

Disagreements over NATO burden-sharing are as nearly as old as the alliance itself. During the Cold War, even as NATO agreed on the level of forces that might be required to defend Western Europe, the member states failed to fulfil these targets.[5] Similar complaints have emerged in recent years, with former U.S. Defence Secretary Robert Gates' exhortation to European members to carry more of the burden of common defence if the Alliance is to avoid facing "collective military irrelevance."[6] Unfortunately, such concerns are the logical consequence of any system of collective action and are likely to persist.[7] In the post-World War II era, international relations theorists sought to explain the wide-spread post-war cooperation between previous rival states through the concept of Hegemonic Stability Theory. Hegemonic Stability Theory is based around the insight that the interests of a hegemon, due to its size and dominant position in the international system, will be more likely to include support for international public goods than the interests of its non-hegemonic partners.[8] In both the economic realm and that of international security, while all will reap the benefits provided by public goods, a greater burden will fall on the larger participants. The others will have increasing incentives to free-ride.[9]

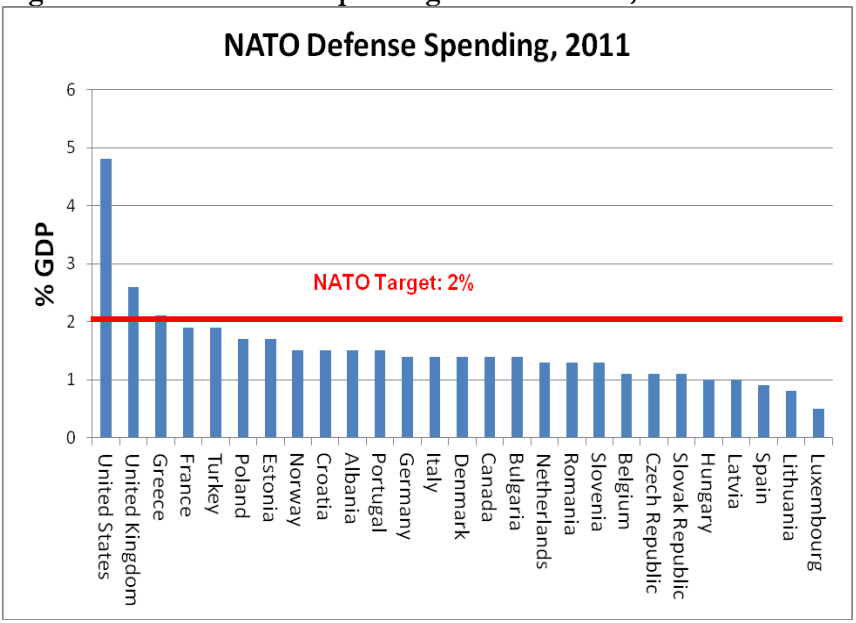
Large states, especially the largest, will thus tend to be "exploited" by their smaller coalition partners. For a period, even extended periods, the dominant member of the coalition might tolerate such exploitation. Its pre-eminent position makes it by far the greatest beneficiary of any common defence of a system in which it has such a privileged position of leadership. The danger to the system of public goods provision comes when the dominant member starts to seek what it perceives as a more "equitable" distribution of the costs of supporting the system.[10] At the moment, NATO is entering this danger zone where the United States is increasingly questioning its share of defence expenditures within the Alliance on the grounds of both interest and finance, while European countries find themselves in an ever-more stringent fiscal predicament that limits their ability to respond to American pressure. How the Alliance responds to this challenge will have far-reaching implications for both NATO's on-going political viability and the ability of the Western democracies to intervene militarily in the future.

In the past, simple gross domestic product explained much of the variation across members in NATO defence burdens from the 1950s through the end of the Cold War.[11] Now, with the exception of Germany, the five NATO members that devote the greatest proportion of their GDP to defence are either those with the largest economies—the United States, Britain and France—or those with that have independent security concerns (ironically, with each other)—Turkey and Greece (Figure 1). In 2011, only three NATO members met the NATO target of 2.0% of GDP devoted to defence. The United States' expenditure of 4.8% of GDP on security leads the members, although with its global commitments, it is clear that even the United States does not directly spend 2.0% of its GDP on Euro-Atlantic defence.

Of course, why NATO should even be targeting 2.0% of GDP for defence is a more fundamental question since such a target, while politically attractive, is not based on any threat assessment, any evaluation of security interests or really any evaluation of domestic resources and circumstances. If NATO's commitments were limited to the immediate European area of operations and did not extend outside the Mediterranean basin and the North Atlantic, then a level of spending rather below 2.0% might well be feasible. On the other hand, NATO is shifting from being an organization focused on the collective defence of

the territories of its members, primarily in central Europe, to one that has a global mission that includes not only collective defence but "crisis management" and "cooperative security" in pre-, post- and on-going-conflict environments outside the traditional NATO area of operations.[12] NATO's operations in Kosovo (1998-9), Afghanistan (2001-Present) and Libya (2011-2) all fall into this evolving formulation of NATO's strategy. If NATO continues to have a more global mission and evolves to be the template organization for future global "coalitions of the willing" in out-of-area expeditionary operations, then the 2.0% target may well be insufficient for such an ambitious agenda without some reform of responsibilities and enhanced efficiencies in operations.

**Figure 1. NATO Defence Spending as a % of GDP, 2011**




Source: NATO, "Financial and Economic Data Relating to NATO Defence," Communique PR/CP(2012)047, 12 April 2012, p. 6; World Bank Development database, 2012.

With the fallout from the 2008 financial crisis and the on-going euro crisis putting all members' budgets under pressure, NATO's answer to this Euro-Atlantic dilemma of national security and economics is, in part,

"Smart Defence." This ambitious program of defence cooperation and specialization is designed enhance cooperation and specialization among the Allies in such a way as to retain the Alliance's military capacity while simultaneously reducing costs through developing economies of scale, eliminating redundancies and specializing in niche capabilities. If successful, it would cut the Gordian knot that confounds Alliance policymakers and allow NATO to both fulfil the new, broader missions many policymakers are setting for it while at the same time avoiding the full budgetary consequences of such choices.[13] Unfortunately, Operation Unified Protector shows that political barriers exist that influence the effectiveness of NATO's military mission, even under a Smart Defence construct.

## NATO…Reluctance to Intervene

The run-up to the declaration of a no-fly zone (NFZ) and air strikes against the Gaddafi military machine demonstrate the reluctance of the U.S. and a large part of Europe to intervene militarily in Libyan affairs. Initial international response to Gaddafi's military action was the establishment of an arms embargo of Libya under UN Security Council Resolution 1970. Deploring what it called "the gross and systematic violation of human rights," the Security Council demanded an end to the violence, imposed an arms embargo, a travel ban, and froze the assets of the Gaddhafi family and select Government officials.[14] Although the ban was swiftly obtained, it was clear to European leaders, especially British Prime Minister David Cameron and French President Nicolas Sarkoszy that additional military action was necessary.

France and the United Kingdom forced the diplomatic pace in February and early March 2011 responding to Gaddafi's continued repression of the opposition movement. French President Nicolas Sarkozy was the first international leader to advocate a no fly zone to protect the people of Libya. In the discussions leading to UNSCR 1970, Sarkozy, president of the G8 and G20 economic forums, called for a NATO-imposed no-fly zone to be enforced over Libya to "prevent the use of that country's warplanes against [its] population."[15] This initial call for action was initially met with a cool response from Britain. Sir Jeremy Greenstock, Britain's ambassador to the UN at the time of the invasion of Iraq in 2003, counselled against a no-fly zone, "We all know from recent history that interventions of this kind tend to have consequences you haven't

foreseen, and I don't think we could get it together quickly enough."[16] British reluctance was short-lived however, since shortly after Sarkozy's appeal, David Cameron, British Prime Minister, in an address to the House of Commons, vowed to look at "each and every way" of stepping up the pressure on Gaddafi's regime as he told Parliamentarians that the use of military assets was not "in any way ruled out." He went on to add that he had asked the Ministry of Defence and the Chief of the Defence Staff to work with the UK's military allies on plans for a military no-fly zone.[17]

Germany and the U.S., while concerned with the escalating violence in Libya, were reluctant to commit to military action. In the G8 meeting discussing measures to be included in UNSCR 1973, Germany made it clear that it would not support a military intervention. Speaking during the meeting, Germany's foreign minister, Guido Westerwelle, stated that his country remained very sceptical about the prospect of a no-fly zone. He recommended instead more political pressure against Gaddafi. He said Germany did not want "to get sucked into a war in north Africa." His comments echoed those of German chancellor Angela Merkel who told an EU summit in early March that the no-fly zone idea was potentially dangerous. She questioned European leaders, "What is our plan if we create a no-fly zone and it doesn't work? Do we send in ground troops? We have to think this through. Why should we intervene in Libya when we don't intervene elsewhere?"[18]

With the wars in Iraq and Afghanistan fresh in U.S. memory, it was also hesitant to support a no fly zone over Libya. In an appearance before the House Appropriations Committee, U.S. Secretary of Defence Robert Gates publicly dismissed Cameron's suggestion that Britain and its allies should consider banning military flights over Libya. Gates warned that even a modest effort to establish a no-fly zone over Libya would have to begin with an attack on the country's air defences and would require "a big operation in a big country." Gates added, "Let's just call a spade a spade. A no-fly zone begins with an attack on Libya to destroy the air defences. That's the way you do a no-fly zone. And then you can fly planes around the country and not worry about our guys being shot down. But that's the way it starts."[19] Ivo H. Daalder, the U.S. ambassador to the North Atlantic Treaty Organization, in a session with reporters stated, "No-fly zones are more effective against fighters, but they really have a

limited effect against…helicopters or the kind of ground operations that we've seen, which is why a no-fly zone, even if it were to be established, isn't really going to impact what is happening there today."[20] Similarly, Admiral Mike Mullen, former chairman of the Joint Chiefs of Staff, and Gen James N. Mattis, head of US Central Command, publicly shared Gates and Daalder's concerns.[21] Of most concern to President Barak Obama was the perception that the United States would once again be meddling in the Middle East.

In the consensus building for a Security Council resolution authorizing force, American leadership was notably absent. As negotiations dragged on among the Security Council members over no-fly zones, Alain Juppe, the French Foreign minister, remarked, "The Americans haven't yet defined their position on Libya."[22] In the House of Commons, Cameron entreated the White House to act on Libya stating, "Of course there are a wide range of views in the UN. But I would urge others to take the right steps so that actually we show some leadership on this issue and make sure we get rid of this regime."[23]

Eventually, the U.S. supported an intervention in Libya, largely influenced by the rising calls for action from the Arab League.[24] The Arab League's endorsement of a no-fly zone over Libya on March 12, 2011 was a crucial turning point garnering international support. Amr Moussa, secretary-general of the Arab League, indicated after a six hour-long meeting that "the Arab League has officially requested the United Nations Security Council to impose a no-fly zone against any military action against the Libyan people."[25] This extremely rare invitation for Western military intervention on Arab territory significantly increased the pressure on the Obama administration to intervene in a war that attracted little domestic support. By inviting the West to take military action, it also cleared the way for the United States, France, and Britain to press for a strong Security Council resolution and to counter the objections of China and Russia.[26] Finally, on March 17th, the Security Council adopted resolution 1973 with unanimous support but 5 abstentions (Brazil, China, Germany, India, Russian Federation), authorizing member states to take all necessary measures to protect civilians under threat of attack in the country.[27] Although the U.S. eventually led efforts in the Security Council against Gaddafi, the Libyan operation would become the first in an attempt for the United States to "lead from behind."

Germany's reluctance continued into the Security Council chambers when it abstained from voting on UNSCR 1973 supporting a no fly zone over Libya. Germany was criticized for the abstention under the claim that it undermined Western resolve for intervening for humanitarian reasons.[28] German Foreign Minister Gudio Westerwelle, under severe criticism for the UN abstention, defended German actions stating that the unforeseen risk inherent in a military operation was too great. He stated that enforcing a no fly zone would result in military escalation. In his defence of the German risk assessment he stated, "We calculated the risk. If we see that three days after this intervention began, the Arab League already criticizes (it), I think we had good reasons…This does not mean that we are neutral, it does not mean that we have any sympathy with Colonel Gaddafi, but it means that we see the risks."[29] Westerwelle asserted that he did not consider military intervention to be the correct strategy for dealing with Libya and that a military response could have the potential to create growing expectations for a greater crisis management role for Europeans in the future. German Defence Minister Thomas De Maiziere was even more candid concerning German opposition to UNSCR1973. De Maiziere argued that Germany's decision was based on the growing concern over "out of area" humanitarian interventions. He stated, "The responsibility to protect a country's civilian population if its government violates human rights is firmly anchored in international law. But does that mean we are allowed to intervene? Or does that mean we're actually required to? I believe that each military operation must be analysed to determine whether its goals can be achieved with appropriate means and within an appropriate time frame as well as how one gets out at the end. Every one."[30] The German response reflected their traditional reluctance to engage in out of area responsibility to protect missions due to the lack of popularity for military intervention domestically.[31] Their abstention from UNSCR 1973 indicated a reluctance to see Libya as a model or precedent for future crisis management operations.

The uneven support for intervention from key NATO countries was a harbinger of things to come in coalition operations. Contributions to the coalition reflected the level of political support to the intervention. Success in Libya and for the NATO effort was principally dependent on the determination of France and Britain, and the reluctant support of the United States. Operationally, participation in the coalition reflected the strategic goals of the nations involved OUP. France was insistent in

displaying a leadership role in NATO, Britain was a reliable partner in this effort, and the Obama administration, already cautious towards another intervention against an Arab state, provided enabling support but let the operation maintain a distinctly European character.

## Operation Unified Protector: An Uneasy Beginning

Two days after the Security Council adopted UNSCR 1973 French combat aircraft started their attacks to relieve the pressure on the government assault on rebel held Benghazi. The initial French attacks were somewhat premature in that they were reported during a conference of Western leaders meeting in Paris to discuss military options in Libya. Aiming for an immediate impact, the aircraft entered Libyan airspace on March 19th and struck armoured vehicles just outside Benghazi.[32] That night, US Navy ships operating under Operation Odyssey Dawn and a Royal Navy submarine under Operation Ellamy launched 124 Tomahawk land-attack missiles (TLAM) at more than 20 targets in Libya's Integrated Air Defence System (IADS) and fixed-site surface-to air- missile systems.[33] These cruise missile strikes were followed by three B-2 sorties that dropped 45 2000-pound satellite-guided Joint Direct Attack Munition (JDAM) bombs on air defence sites.[34] These strikes were aimed at targets that either posed a direct threat to the coalition pilots or through use by the regime posed a direct threat to the people of Libya.[35] With the Libyan air defences degraded, US Air Force F-15Es and F-16CJs from European Command, as well as US Marine Corps AV-8B Harrier IIs, supported by US Navy EA-18 Growler stand-off jamming aircraft, flew follow-on strikes against Gadhafi's forces outside Benghazi.[36] Although to the public, the initial air strikes seemed coordinated into one fluid air campaign, significant confusion arose concerning command and control arrangements and the support of NATO countries.

At the onset of the Libyan crisis, U.S. Africa Command (USAFRICOM) was not manned to plan and conduct a large-scale contingency operation such as Operation Odyssey Dawn. Unusual for a U.S. lead command, USAFRICOM had no previous experience with forming a war fighting coalition since it was initially conceived as a command with an engagement rather than a combat mission. USAFRICOM was unprepared for the initial activities to coordinate and command a major air and sea operation. Agreements for basing rights and third party access to host-nation bases and facilities had to be negotiated with nations residing in the

USEUCOM AOR and planning needed to be conducted for major operations. One USAFRICOM general officer remarked, "Building a coalition: We didn't know who to call and contact to make this happen. We sent LNOs [liaison officers] to the [United Kingdom] and France to facilitate, and later sent an LNO to SHAPE [Supreme Headquarters Allied Powers Europe]. . . . 'Who do you talk to in order to find out who's going to play and how much they are going to bring to the fight?'"[37] Eventually, the USAFRICOM 17th Air Force air command element received heavy augmentation from USEUCOM's more robustly staffed 3d Air Force and its Air Operation Centre (AOC).[38]

Many NATO partners were concerned with the rapid escalation of the ground attacks and the lack of a coalition lead command structure. Although UNSCR 1973 authorized the use of force to protect Libyan civilians, the majority of NATO nations were more comfortable with supporting the No Fly Zone and arms embargo rather than strike missions. Accordingly, the rapid escalation of attacks on the ground coincided with a diplomatic stalemate in the North Atlantic Council. Paris advocated for a European lead for the operation under a French/Anglo-French command because Sarkozy genuinely seemed to value a personal "ownership" of command by European actors.[39] Meanwhile, NATO was concerned over the reaction of Arabic nations to a NATO mission. Turkey remained so concerned about Arab perceptions that President Abdullah Gül unilaterally declared that, "Turkey could never condone the pointing of weapons at Libyan targets."[40] Germany, which abstained from the UN vote with Russia and China, continued to oppose a NATO hand-over, on the grounds that the evolving intervention was more militarily aggressive than Resolution 1973 supported.[41] The battle between these resistant nations and NATO Secretary General Anders Fogh Rasmussen was so heated that the Turkish and German ambassadors reportedly stormed out mid-debate.[42] The Libya operation spawned the most controversial diplomatic rift in the Alliance since the US invasion of Iraq, with the resistance of Germany and Turkey continuing to illustrate fundamental differences about NATO's use of force.

Thus, for the first ten days the Libya operation reflected the political commitment of a loose coalition. The U.S. was partially committed, France and the United Kingdom fully supported combat operations, and Germany obstructed consensus politically and withdrew militarily. Only

after significant political wrangling did NATO take command of the operation.[43] Command of the operation was confusing at best until NATO eventually assumed command and control of the Libyan operation. Initially, the operation was commanded through a parallel command structure that required coordination between each nation's command elements to ensure unity of effort.[44] Respective national staffs commanded each contingent and the sorties were coordinated among the allies rather than commanded by a single combined task force.[45] Throughout the first week of operations, European allies contributing to the mission, including Italy and Norway, expressed increasing frustration with the lack of agreement within NATO on a suitable command arrangement. Norway refused to employ its six F-16s in Crete unless they were under NATO command and control. Finally, the jets were allowed to operate under US command after a vote by Norwegian Council of State approved their transfer.[46]

Although the U.S. command elements provided the initial unity of effort, President Obama made it clear from the start of the operation that he expected NATO to pick up the operational lead. In his initial approval for U.S. combat support he reiterated that military action in Libya would be limited to "days not weeks."[47] After less than a week of leading coalition efforts, President Obama echoed that the United States would step back from the leading role within days.[48] On 28 March, in a televised speech on Libya, Obama announced that the US would "focus our unique capabilities on the front end of the operation and . . . transfer responsibility to our allies and partners."[49] After the first phase of operations, the US would move to a "supporting role" to ensure that "the risk and cost of this operation—to our military and to American taxpayers—will be reduced significantly."[50] In this speech he sent a message to NATO, that the Libyan operation would create a new model for NATO leadership that "real leadership created the conditions and coalitions for others to step up as well; to work with allies and partners so that they can bear their share of the burden and pay their share of the costs."[51]

The initial military operation in Libya highlighted a turn of American policy towards NATO. In an age of resource constraints and shifting strategic priorities U.S. would require a higher level of commitment from its European partners. Despite its established history of leading 'coalitions

of the willing,' the Libya campaign was a clear example of the US seeking to play a different role.[52]

On March 24, the NATO allies agreed to take command of air operations to enforce the no-fly zone over Libya. The US, Britain, France and Turkey agreed to put the three-pronged offensive – a no-fly zone, an arms embargo, and air strikes – under a NATO command umbrella. On March 27, NATO Secretary General Anders Fogh Rasmussen announced that NATO would expand the scope of its mission to include implementing all military aspects of UNSCR 1973, including the protection of civilians and civilian areas through possible air strikes on ground forces loyal to Gaddafi.[53] This was the most controversial aspect of the new NATO mission, but transfer of command and control took the full effort of the coalition.

**Acropolis Now: European Security Options in a Time of Austerity**

The European Cold War-era geopolitical objectives for NATO—"keep the Russians out, the Americans in, and the Germans down"—continues to undergo serious strains that are exacerbated by budgetary pressures.[54] The Russians are far out of central Europe, although the former Warsaw Pact members of NATO continue to harbour suspicions about Russian ambitions and influence and are wary of attempts by the Kremlin to reassert itself and use energy as a political tool.[55] Far from keeping the Germans down, its European partners want Germany to take a broader role in supporting and funding European projects while the Germans steadfastly resist or pursue a narrower view of German national interests, especially in terms of a passive security policy.[56] Even the desire to keep the Americans in has waned and many European governments are steadfastly Janus-faced on the subject—welcoming American support in defence capabilities that many lack, but chafing at American military dominance and their own political dependence on it.[57] With the United States increasingly unwilling and perhaps unable to spend money on defence,[58] the pressure for some form of deeper defence expenditure coordination across the Alliance is mounting. There is a difficult path to be followed if NATO's European members are to have the proper combination of political and economic incentives to effectively cooperate in the defence rationalization.[59]

Indeed, NATO's stated decision to specialize in the "allocation of critical, deployable and sustainable capabilities" might be precisely the wrong path to take.[60] Specialization, while it brings cost savings, also raises the spectre of greater policy paralysis. If specialization occurs in areas that are critical to operations, NATO would begin to develop multiple single points of dependence, a position that would enable a key capacity provider to prevent action by withholding its unique capabilities from an alliance operation. Earlier initiatives towards "joint" NATO capabilities have proven problematic in practice. In Operation *Odyssey Dawn*, German non-participation meant that "joint" NATO AWACs planes had to fly without German members of their crews. The dispatch of German AWACs crews to Afghanistan in order to free up other NATO capacity for Libya was part of an inefficient solution to the shortfall in "joint" capacity that highlighted the awkward political contortions "joint" NATO deployments could impose.[61]

German support of the NATO Airborne and Warning Control for operation OUP is also instructive on the hazards of the Smart Defence initiative. Germany's abstention in the Security Council was also reflected in its reluctance to participate in the Libyan conflict. Germany recalled all its forces supporting the initial surveillance mission, two frigates and AWACS surveillance plane crews, for fear that they would be drawn into the Libyan conflict if NATO took over control from the U.S. Berlin was concerned that any military action supporting Libyan operations would not be supported domestically and reflected Germany's traditional reluctance for "out of area operations."[62]

The pull out of German AWACS crews caused a significant burden for the blended NATO squadrons supporting the no fly zone. Military personnel from 16 of the 17 E-3A component participating countries staff each component's squadrons. The German decision caused wing leadership to break up squadrons to garner enough crews to support 24/7 surveillance operations of Libya.[63] The German pull out caused a significant disruption of AWACS operations over the Mediterranean at a time when the AWACS support was critical to air operations.

Germany has shown a propensity to support NATO in venues that are acceptable to its domestic constituency. In this instance, to maintain alliance cohesion, Germany shifted its AWACS commitment to NATO

operations in Afghanistan. The Bundestag voted to increase Germany's role in surveillance flights over Afghanistan in an effort to free up NATO AWACS planes to support the on-going air strikes in Libya. The German decision allowed an increase of up to 300 German troops to man AWACS surveillance flights over Afghanistan in support of on-going operations there. The decision, according to Defence Minister Thomas de Maizière, was a "political sign of our solidarity with the alliance."[64]

The path of the NATO AWACS in operation Unified Protector provides a cautionary tale for Smart Defence. Squadron effectiveness is something that is developed over time and a last minute shift of resources can degrade or even deny critical capabilities that are pooled under the concept of Smart Defence. In this case, the Germans were able to find a political solution that allowed NATO to shift resources from Afghanistan, but Libya was a fairly small operation that should not have stressed NATO capabilities. The German reticence to participate indicates that Germany will at best be a hesitant partner in future crisis management operations.

Rather than focusing on crucial areas, specialization could occur in areas that are not critical and perhaps are even non-deployable since these resources could be relied upon whether hostilities are on-going or not. Likewise, they would be unlikely to entail controversial political decisions to send combat troops or other personnel. These are likely to be the items that are least controversial – the long-term sunk costs associated with training, medical, logistical and educational facilities, for instance.

If the goal, however, is not simply to reduce costs but also to enhance NATO's ability to act, then redundancy rather than specialization would be the route to take. The abstention of a single member with a core specialization – AWACs crews, minesweeping capacity, and so on – could hinder or greatly complicate the launching of a NATO mission. Redundancy, on the other hand, would facilitate NATO action without all the members being active participants. Indeed, to the extent that it provided European redundancy of American capabilities, it would provide a more viable basis for European action independent of the United States. If the EU's Security and Defence Policy (ESDP) becomes more robust and coordinated, then a NATO with the capacity to act separate from the United States would be a clear asset.[65]

Redundant capacities have a long tradition in NATO, up to and including nuclear weaponry, and can even be exploited to achieve broader strategic goals. During the Cold War, the French and British independent nuclear arsenals provided additional reassurance to European NATO members of the Alliance's resolve in deterring the Soviet Union to those who might have wondered if the United States was willing to risk the destruction of New York and Washington to prevent Soviet domination of Western Europe.[66] The independent nature of these deterrent forces, especially the French one, also provided the United States with an additional incentive to contribute to the conventional defence of Europe, as the French nuclear fuse was likely shorter than the American one in the event the Red Army emerged victorious from conflict in West Germany.

**Self-Defence versus Smart Defence**

Cynics might view NATO's commitment to "Smart Defence", re-affirmed most recently at the Chicago Summit, as little more than a branding exercise to describe the use of the Alliance's "smart weapons" in accompaniment to its exertion of "Smart Power",[67] "Smart Sanctions",[68] and "Smart Aid".[69] However, the fiscal demands for defence rationalization are so substantial that NATO governments are likely to engage in substantial reductions in defence expenditures regardless of the level of international cooperation and coordination. In this regard, "smart" defence promises to be an Alliance-wide "smart rationalization" rather than a haphazard collection of 28 nationally-driven retrenchments.

Smart defence, however, poses risks to NATO's European members. Where previously the European members have relied upon the United States to be the capacity provider of last resort -- if a capacity was lacking, the United States was typically the member that stepped into the breach and provided the missing piece be it strategic airlift, munitions, ISR, etc. Smart defence could undermine this in two ways. The first would be that it would not change the status quo -- the United States would continue to backstop all NATO's capacity shortfalls and the European allies would have all their traditional disincentives to invest in capabilities. The second risk is more pernicious as it interacts with the "new" NATO policy of out-of-area operations that has evolved over the past two decades. If the specialized allocation of critical, deployable and sustainable capabilities is shared among countries, some of whom are reluctant to become involved

in a specific enterprise, then NATO as a whole might be hindered in its ability to act. Inconvenient and inefficient workarounds might be developed, but they would be a poor substitute for retaining more widespread capacities among members. In the end, this might again entail a dependence on the United States for the provision of capacity to compensate for the absence of specialized assistance from a non-participating ally. This would, of course, do little to either reduce the European dependence on the United States or assuage American concerns about burden-sharing.

This is not to argue that coordinated defence spending would not be a boon to the Alliance in these austere times. The fiscal fetters of the current economic environment will surely constrain national defence budgets across the Euro-Atlantic area. Rationalization of European and American armoires in light of current security interests is long overdue. For example, during the Cold War, the United States developed major strategic airlift capability as NATO's strategy required the rapid movement of troops from the continental United States to Europe in the event of hostilities. European governments had limited or no such capacities as their armies were already located on the prospective battlefields. New security challenges and the demands of expeditionary warfare have revealed rather serious shortcomings in European strategic airlift with several European countries outsourcing their air transport needs to the Ukraine to compensate for their own lack of domestic airlift capacity.[70]

Although labelled a success, Operation Unified Protector underscored NATO's reliance on the United States for critical enabling capabilities such as strategic airlift, ISR, aerial refuelling, command-and-control, and target-analysis capabilities. All these capabilities are necessary for a successful air campaign, but NATO has been over-reliant on the U.S. to provide these essential capabilities. Any other European security regime will require these mission sets to provide an effective military response capability. Smart defence is one strategy to spread the burden sharing costs for expensive capabilities across alliance member states. Smart defence allows NATO nations to have access to capabilities that they could not afford individually, therefore achieving economies of scale through pooling of resources. The Libya operation underscores capabilities that should be considered for Smart Defence, but also highlights some of the weaknesses of the concept.

Command and control is an essential capability essential for military operations, but due to political constraints and ISAF participation in Afghanistan, NATO was initially unprepared to lead OUP, after the transfer from the Americans. Speaking at the Association of Old Crows symposium, a senior British Royal Air Force officer stated that NATO was not ready to assume command of the Libyan operation following the handover from U.S. Africa Command. "We don't want a repeat of being that ill-prepared," said Wing Cmdr. Rick Adams.[71] According to another senior officer, NATO had been planning for the arms embargo and humanitarian relief missions and due to lack of agreement in the North Atlantic Council could not begin planning for the no fly zone and protect missions until five days prior to the handoff. NATO planners did not know what resources were available and in the end received about 20 per cent of what they thought was necessary to prosecute the campaign from participating countries. This resulted in a chaotic transfer of command requiring several weeks until NATO command matched the capability formed under Operation Odyssey Dawn. The fact that the Air Operations Centre for OUP had approximately 170 staff officers compared to the 770 supporting Odyssey Dawn reflects the limitations of initial NATO command and control.[72]

An important element of air command and control is targeting expertise which was sorely lacking during OUP. According to a Brussels based NATO official, the alliance "did not have all the necessary expertise. We didn't have targeteers, in particular. Intelligence analysts were also needed, as we weren't studying Libya until earlier this year." According to the NATO official, the alliance was able to tackle this deficiency in targeteers by asking members to provide additional targeting staff and by redeploying personnel from other parts of NATO.[73] According to another official, the United States did not chop to NATO its targeting capability, severely limiting NATO capability to process targeting data.[74] Eventually, U.S. commanders in Europe had to quickly dispatch over 100 military personnel to the NATO targeting centre when it became clear that many member states lacked the expertise to provide their aircraft with the correct targeting information.[75]

*While the lack of targeteers significantly affected operations, NATO countries found basic communication between intelligence centres difficult. "Nations did not effectively and efficiently share national intelligence and targeting information among allies and*

*with partners,* the inability to share information presented a major hindrance to nations deciding if a target could be engaged," according to an after-action report of OUP.[76] The U.S. provided 75 per cent of the intelligence, surveillance, and reconnaissance data for OUP, but procedures had to be initiated to give intelligence data to coalition partners participating in strikes.[77] Due to differing national caveats, several countries required detailed source information to determine the quality of the intelligence. Additionally, it took about two weeks to get U.S. targeting data into the NATO air operations centre. NATO had to build procedures to share this information across country lines.[78]

One particular area of concern was the shortage of precision weapons in this relatively low intensity air campaign. As early as June, some NATO allies were concerned with dramatically depleted stocks of precision guided bombs.[79] Danish forces were reported to be running out of precision weapons and requested the Netherlands to help replenish their shortage.[80] Later in June, both Denmark and Norway were reported to have asked for more bombs through the NATO Maintenance and Supply Agency. Defence minister Thomas de Maiziere also granted permission to release from German stocks.[81] Additionally, British forces noted shortages of Brimstone precision guided missiles. In the end, although Denmark and Norway were reported to have depleted stocks, the U.S. and Germany were able to replace the shortage. The warning sign for NATO is the relatively short timeframe and low intensity of the conflict that generated the shortage. Clearly, without the U.S. production capacity and stockpile, NATO or the EU would be challenged to fight a high intensity campaign.

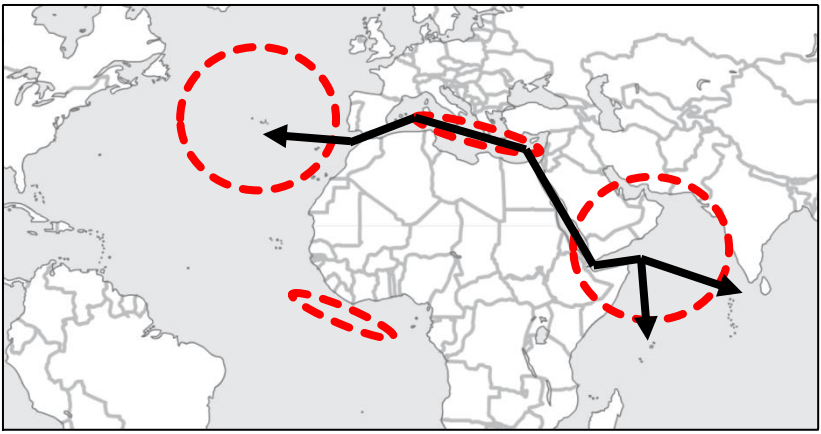
Overall, NATO had to rely heavily on U.S. capability to sustain an effective air effort. U.S. aircraft including EC-130Js to jam and disrupt the communications of the Libyan armed forces, Global Hawk and U-2 spy planes to collect still imagery, Predator drones for full-motion video, E-8 Joint Surveillance Target Attack Radar System planes for ground surveillance, and KC-135 tankers were in high demand.[82] According to the NATO after action report, OUP exposed a critical weakness in the alliance, "NATO remains overly reliant on a single ally to provide I.S.R. collection capabilities that are essential to the commander."[83] Aside from important contributions from the French and the British, the operation underscored how few ISR aircraft the other alliance members actually had available.[84] According to a senior NATO official at a Libya after action

workshop, "NATO's secretary general has made it public that while our European and Canadian allies acquitted themselves very well, they need to acquire those ISR capabilities that the U.S. continues to bring to the table with increasing effect."[85] The secretary general's assessment also helped spur a French-led initiative to establish a hub for allied surveillance aircraft at an Italian air base in Sicily for Predator and Global Hawk unmanned aerial vehicles. This concept is modelled after a similar approach NATO developed for Afghanistan.[86]

In order to share expensive assets in an age of austerity, some elements of "Smart Defence" can be seen in the 2010 Anglo-French agreement on defence and nuclear cooperation, the so-called *Entente Frugale*.[87] This has more recently been expanded to potentially include a joint expeditionary force, joint development of Unmanned Air Systems (UAS), increasing the already high levels of anti-terrorism collaboration, and coordination on the use of national aircraft carriers in a multinational maritime taskforce.[88] Britain and France, the fourth and fifth largest defence spenders on the planet, account for approximately half of NATO's European defence expenditures, and are Western Europe's sole nuclear powers. Their increased cooperation in such sensitive areas as nuclear technology and defence procurement marks a watershed in Anglo-French military relations and presents opportunities for furthering NATO's Smart Defence agenda within the Alliance's foremost European members.

France's 2008 Defence White Paper laid out a geographic basis of threats to French security, that roughly cover the approaches to France through eastern Atlantic, the Mediterranean Sea and into the western Indian Ocean (Figure 2).[89] Britain's 2010 Strategic Defence and Security Review (SDSR) did not make any such geographic distinctions;[90] however, similar areas have traditionally been at the centre of British security concerns and the major British overseas bases of Gibraltar, Cyprus and the facility at Diego Garcia leased to the United States all straddle this axis. A large proportion of British, French and European trade transit this route. It is no accident that the site of the recent NATO intervention, Libya, is right in the centre of this Anglo-French strategic axis.

**Figure 2. France's Main Geostrategic Axis: From the Atlantic to the Indian Ocean**



***Sources:*** *The French White Paper on Defence and National Security, (New York: Odile Jacob, 2008), p. 72. Author edited map from National Geographic: http://education.nationalgeographic.com/education/mapping/outline-map/?map=The_World&ar_a=1*

## Implications

It is often commented upon that the United States accounts for over 40% of world military expenditure. What is less frequently commented on is that the rest of the NATO alliance accounts for about one-third of the remaining world security spending. Combined, the United States and other NATO members are responsible for at least 60% of global defence spending.[91] The "Smart Defence" initiative is designed to facilitate the reduction of these vast expenditures while at the same time sustaining NATO's capabilities. The economic and political stars appear aligned for the fiscal cutbacks and even for the cooperation necessary. However, there has been an absence of a discussion of the strategic objectives of this coordination other than its obvious basis in cost reduction. There has been little attempt to reconcile the likely political quandary of interrelated defence procurement and specialization with the potential compromises to national sovereignty of joint operations. [92]

The euro currency crisis provides some lessons for NATO policy makers about the consequences of centralizing political power in one area without a corresponding centralization of power in other areas. European Union's

single currency, the euro, is presently undergoing a crisis because the institutional concentration of monetary authority at the European-level in the European central bank ultimately in conflicts with the maintenance of decentralized fiscal power.[93] While the maintenance of a strict monetary policy regime is not necessarily incompatible with localized control over public finances, there is a tendency towards imbalance, the consequences of which we can readily observe today. The failure of deficit countries of southern Europe to push their public finances and labour markets into convergence with the creditor economies of northern Europe has led to tensions within a unified monetary system.[94] So, too, a more unified NATO procurement policy might give the initial appearance of fiscal savings, but could come into conflict with the intrinsically-linked issue of decentralized national foreign policies. So long as individual NATO foreign policies are aligned with one another, there need be no contradiction in the future use of force. However, as OUP revealed in microcosm, tensions in the Alliance will start to have an impact on operations if national governments take divergent positions on the use of force.

Consequently, if NATO is going to go far down the path of joint capacity and procurement, then it will need to be extremely cautious to ensure that it either embeds redundancies into the ability to deploy assets or provides more robust political mechanisms for ensuring the commitment of specialized capacities held by member states. The first suggests the creation of inefficiencies in the over-staffing and extent of training of personnel for international projects. While countries might save money on procurement, some of the savings will be spent on the broader base of personnel necessary for multinational redundancy. The second would strike at the heart of national sovereignty and a country's ability to determine when, where, against whom and how its armed forces are deployed. National caveats and opt-outs would be even more difficult to manage than they are now and the political solutions to such a problem could undermine the basis of the Alliance. Either way, "Smart Defence" will have profound consequences for how NATO is run.

[11] Anders Fogh Rasmussen, "NATO After Libya." *Foreign Affairs* 90, no. 4 (July 2011): 2-6.

[2] Richard Weitz, "Transatlantic Defense Troubles," *Strategic Insights* 10, no. 3 (Winter 2011): 52-66.
[3] Eric Schmitt, "NATO Sees Flaws in Air Campaign Against Qaddafi," *The New York Times*, April 14, 2012, accessed May 1, 2012, http://www.nytimes.com/2012/04/15/world/africa/nato-sees-flaws-in-air-campaign-against-qaddafi.html.
[4] "NATO - Smart Defence," *NATO*, April 26, 2012, http://www.nato.int/cps/en/natolive/topics_84268.htm.
[5] Klaus Schwabe, "Commitments to NATO and Domestic Politics," in Gustav Schmidt, ed., *A History of NATO: The First Fifty Years*, Vol. 2 (New York: Macmillan, 2001), pp. 225-234.
[6] Robert Gates, speech on "The Security and Defense Agenda (Future of NATO)," Brussels, Belgium, 10 June 2011; accessed May 1, 2012, http://www.defense.gov/speeches/speech.aspx?speechid=1581.
[7] Mancur Olson, Jr., *The Logic of Collective Action*, (Cambridge, MA: Harvard University Press, 1965), p. 3; John Pincus, *Economic Aid and International Cost Sharing*, (Baltimore: Johns Hopkins Press, 1965); Mancur Olson, Jr. , and Richard Zeckhauser, "An Economic Theory of Alliances," *The Review of Economics and Statistics* 48, No. 3 (1966), pp. 266-79.
[8] Robert Gilpin, *Global Political Economy*, (Princeton: Princeton University Press, 2001), pp. 93-100.
[9] Charles Poor Kindleberger, *The World in Depression, 1929-1939*, (Berkeley: University of California Press, 1986).
[10] David Lake, "British and American Hegemony Compared: Lessons for the Current Era of Decline," in Michael Fry ed. , *History, the White House, and the Kremlin*, (New York: Pinter Publishers, 1991), pp. 106-22; Robert O. Keohane, *After Hegemony*, (Princeton: Princeton University Press, 1984).
[11] John R. Oneal, "The Theory of Collective Action and Burden Sharing in NATO," *International Organization* 44, No. 3 (1990), pp. 379-402.
[12] NATO Strategic Concept, Lisbon Summit, November 2010, accessed May 1, 2012, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf.
[13] Bastian Giegerich, 'NATO's Smart Defence: Who's Buying?', *Survival* 54, no. 3, (2012), pp. 69–77.
[14] Security Council SC/10187/Rev.1**, accessed April 25, 2012, http://www.un.org/News/Press/docs/2011/sc10187.doc.htm, accessed April 25, 2012.
[15] Nicholas Watt and Patrick Wintour, "Libya No-fly Zone Call by France Fails to Get David Cameron's Backing," *The Guardian*, February 23, 2011, accessed April 25, 2012, http://www.guardian.co.uk/world/2011/feb/23/libya-nofly-zone-david-cameron.
[16] Ibid.

[17] Hélène Mulholland, "Libya Crisis: Britain Mulling No-fly Zone and Arms for Rebels, Says Cameron," *The Guardian*, February 28, 2011, accessed April 25, 2012, http://www.guardian.co.uk/world/2011/feb/28/libya-muammar-gaddafi.
[18] Simon Tisdall, "Germany Blocks Plans for Libya No-fly Zone," *The Guardian*, March 15, 2011, accessed April 25, 2012, http://www.guardian.co.uk/world/2011/mar/15/germany-blocks-libya-no-fly-zone.
[19] David E. Sanger and Thom Shanker, "Defense Chief Robert Gates Urges Caution on Libya," *The New York Times*, March 2, 2011, accessed May 1, 2012, http://www.nytimes.com/2011/03/03/world/africa/03military.html.
[20] Paul Richter, "Reluctant U.S. Says Libya No-fly Zone Would Have Little Effect," *Los Angeles Times*, March 7, 2011, accessed May 1, 2012, http://articles.latimes.com/2011/mar/07/world/la-fg-obama-libya-20110308.
[21] Christian Anrig, "Allied Air Power over Libya: A Preliminary Assessment," *Air and Space Power Journal* 25 (2011): 90.
[22] "Cameron Frustrated with Obama's Refusal to Act over No-fly Zone," *The Independent*, accessed May 1, 2012, http://www.independent.co.uk/news/world/politics/cameron-frustrated-with-obamas-refusal-to-act-over-nofly-zone-2244161.html.
[23] Ibid.
[24] Dan Bilefsky and Mark Landler, "As U.N. Backs Military Action in Libya, U.S. Role Is Unclear," *The New York Times*, March 17, 2011, accessed May 1, 2012, http://www.nytimes.com/2011/03/18/world/africa/18nations.html.
[25] Quoted in Anrig, "Allied Air Power over Libya: A Preliminary Assessment."
[26] Ethan Bronner and David E. Sanger, "Arab League Endorses No-Flight Zone Over Libya," *The New York Times*, March 12, 2011, accessed April 29, 2012, http://www.nytimes.com/2011/03/13/world/middleeast/13libya.html.
[27] "Security Council Approves 'No-Fly Zone' over Libya, Authorizing 'All Necessary Measures' to Protect Civilians, by Vote of 10 in Favour with 5 Abstentions", March 17, 2011, accessed April 29, 2012, http://www.un.org/News/Press/docs/2011/sc10200.doc.htm.
[28] Julian Borger, "Libya No-fly Resolution Reveals Global Split in UN," *The Guardian*, March 18, 2011, accessed May 1, 2012, http://www.guardian.co.uk/world/2011/mar/18/libya-no-fly-resolution-split.
[29] Simon Tisdall, 'Libya: Reaction: Britain and France appear ever more isolated as world opinion turns hostile: China, Russia, Germany, Brazil voice objections NATO also divided as Turkey blocks agreement', *The Guardian*, 22 March 2011: 6.
[30] "Merkel Cabinet Approves AWACS for Afghanistan," *Spiegel Online*, March 23, 2011, accessed May 1, 2012, http://www.spiegel.de/international/world/0,1518,752709,00.html.
[31] Daniel F. Baltrusaitis, *Coalition Politics and the Iraq War: Determinants of Choice* (Boulder, CO: Lynne Rienner, 2009).

[32] Anrig, "Allied Air Power over Libya: A Preliminary Assessment": 91.
[33] The UK contribution was the launch of 12 Tomahawk cruise missiles from HMS Triumph, see Jeremiah Gertler, "Operation Odyssey Dawn (Libya): Background and Issues for Congress" (Congressional Research Service, March 30, 2011): 18.
[34] Tony Capaccio, "U.S., British Tomahawk Missiles 'First Phase' Opened Airspace Over Libya," *Bloomberg*, March 20, 2011, accessed April 29, 2012, http://www.bloomberg.com/news/2011-03-20/u-s-u-k-tomahawks-first-phase-to-open-libyan-airspace.html; Anrig, "Allied Air Power over Libya: A Preliminary Assessment."
[35] Mark Townsend, "Operation Odyssey Dawn Commences to End Gaddafi Onslaught on Benghazi," *The Guardian*, March 19, 2011, accessed May 20, 2012 http://www.guardian.co.uk/world/2011/mar/19/operation-odyssey-dawn-tomahawks-libya.
[36] Anrig, "Allied Air Power over Libya: A Preliminary Assessment": 91.
[37] Quoted in Joe Quartararo Sr., Michael Rovenolt, and Randy White, "Libya's Operation Odyssey Dawn: Command and Control," *Prism* 3, no. 2 (March 2012): 144–145.
[38] Ibid: 149.
[39] Defence Dateline Group, "Libya Phase II - Operations Ellamy and Odyssey Dawn Make Way for NATO," accessed May 1, 2012, http://www.defenceiq.com/air-forces-and-military-aircraft/articles/libya-phase-ii-operations-ellamy-and-odyssey-dawn/.
[40] Ibid.
[41] Gertler, "Operation Odyssey Dawn (Libya): Background and Issues for Congress": 15.
[42] "Libya Phase II - Operations Ellamy and Odyssey Dawn Make Way for NATO."
[43] Ellen Hallams and Benjamin Schreer, "Towards a 'post-American Alliance? NATO Burden-sharing After Libya," *International Affairs* 88, no. 2 (2012): 323.
[44] *Joint Publication 3-16*, *Multilateral Operations* (Washington DC: Government Printing Office, 2007): II-7
[45] "L'opération Harmattan", accessed May 20, 2012, http://www.defense.gouv.fr/operations/autres-operations/operation-harmattan-libye/dossier/l-operation-harmattan.
[46] "More Fighter Jets Join Libyan Action : Views and News from Norway", March 25, 2011, accessed May 20, 2012, http://www.newsinenglish.no/2011/03/25/two-norwegian-f16s-sent-to-libya/; Gertler, "Operation Odyssey Dawn (Libya): Background and Issues for Congress": 16.

[47] Helene Cooper and Steven Lee Myers, "Shift by Clinton Helped Push Obama to Take a Harder Line," *The New York Times*, March 18, 2011, accessed May 28, 2012, http://www.nytimes.com/2011/03/19/world/africa/19policy.html.
[48] Mark Landler and Steven Erlanger, "Obama Seeks to Unify Allies as More Airstrikes Rock Tripoli," *The New York Times*, March 22, 2011, accessed May 28, 2012, http://www.nytimes.com/2011/03/23/world/africa/23libya.html.
[49] Barak Obama, "Remarks by the President in Address to the Nation on Libya," March 28, 2011, accessed May 28, 2012, http://www.whitehouse.gov/the-press-office/2011/03/28/remarks-president-address-nation-libya; Hallams and Schreer, "Towards a 'post-American Alliance? NATO Burden-sharing After Libya": 321.
[50] "Remarks by the President in Address to the Nation on Libya."
[51] Ibid.
[52] Hallams and Schreer, "Towards a 'post-American Alliance? NATO Burden-sharing After Libya": 321.
[53] Gertler, "Operation Odyssey Dawn (Libya): Background and Issues for Congress": 17.
[54] Lord Ismay quoted in Joseph S. Nye, Jr. "The US and Europe: Continents apart," *International Affairs* 76, (2000): 53.
[55] Arkday Moshes, "Russia's European Policy Under Medvedev: How Sustainable is a New Compromise?" *International Affairs* 88, (2012): 17-30.
[56] Timo Behr and Niklas Helwig, "Constructing a German Europe? Germany's Europe Debate Revisited," *Finnish Institute of International Affairs* 99, (February 2012): 9.
[57] David P. Calleo, "*Why EU and US Geopolitical Interests Are No Longer the Same,*" ***Europe's World*** 9, (2008): 8-13.
[58] Mark Duckenfield, "Fiscal Fetters: The Economic Imperatives of National Security in a Time of Austerity," *Strategic Studies Quarterly* 6, No. 2 (2012).
[59] Jim Thomas, "From Protectorates to Partnerships," *The American Interest*, (May/June 2011): 37-44.
[60] NATO Statement on Smart Defence, Chicago Summit, May 2012.
[61] "Markel Cabinet Approves AWACs for Afghanistan."
[62] Ruth H. Santini and Arturo Varvelli, "The Libyan Crisis Seen from European Capitals," *The Brookings Institution*, June 1, 2011, accessed May 28, 2012, http://www.brookings.edu/research/papers/2011/06/01-libya-santini; Baltrusaitis, *Coalition Politics and the Iraq War*.
[63] Col Tom Coglitore, USAF, (military aide to NATO Combined Forces Air Component Commander), interview by Col Daniel Baltrusaitis, USAF, 27 April 2012.
[64] "Merkel Cabinet Approves AWACS for Afghanistan."
[65] Hallams and Schreer, "Towards a 'post-American' alliance?": 313-327.
[66] Bruno Tertrais, "*'Destruction Assurér'*: The Origins and Development of French Nuclear Strategy, 1945-81," in Henry D. Sokolski, ed. , *Getting MAD: Nuclear*

*Mutual Assured Destruction, Its Origins and Practice*, (Carlisle, PA: Strategic Studies Institute, 2004): 51-122 (esp. 71-72).

[67] Suzanne Nossel, "Smart Power," *Foreign Affairs* 83, No. 2 (March/April 2004); Testimony of Hillary Rodham Clinton, Statement before the Senate Foreign Relations Committee, Washington, DC, 13 January 2009, available at http://www.state.gov/secretary/rm/2009a/01/115196.htm.

[68] David Cortright and George Lope eds., *Smart Sanctions: Targeting Economic Statecraft*, (New York: Rowman and Littlefield, 2002).

[69] Richard Joseph and Alexandra Gillies, eds. , *Smart Aid for African Development*, (Boulder, CO: Lynne Rienner, 2008).

[70] "NATO and Ukraine sign agreement on strategic airlift," NATO press release, 7 June 2004, available at http://www.nato.int/cps/en/SID-82717572-905DD015/natolive/news_20822.htm .

[71] Santini and Varvelli," Libya Lessons: NATO Hears Calls for Better C2, More Targeting Experts."

[72] Coglitore, interview.

[73] Santini and Varvelli, "Libya"

[74] Coglitore, interview.

[75] Ivo H. Daalder and James G. Stavridis, "NATO's Victory in Libya: The Right Way to Run an Intervention," *Foreign Affairs* 91, (April 2012): 6.

[76] "Cold Shower Report on Libya War: NATO Can't Fight Without US," April 15, 2012, accessed June 3, 2012, http://www.rt.com/news/libya-campaign-nato-report-084/.

[77] Daalder and Stavridis, "NATO's Victory in Libya: The Right Way to Run an Intervention": 6.

[78] Coglitore, interview.

[79] Thomas Harding and Matthew Day, "Libya: Germany Replenishes Nato's Arsenal of Bombs and Missiles - Telegraph," *Telegraph.co.uk*, June 28, 2011, accessed June 3, 2012, http://www.telegraph.co.uk/news/worldnews/europe/germany/8603885/Libya-Germany-replenishes-Natos-arsenal-of-bombs-and-missiles.html.

[80] "Danish Planes in Libya Running Out of Bombs: Report," *Defense News*, June 9, 2011, accessed June 3, 2012, http://www.defensenews.com/article/20110609/DEFSECT01/106090302/Danish-Planes-Libya-Running-Out-Bombs-Report.

[81] Harding and Day, "Libya."

[82] Santini and Varvelli, "Libya Lessons: NATO Hears Calls for Better C2, More Targeting Experts."

[83] Schmitt, "NATO Sees Flaws in Air Campaign Against Qaddafi."

[84] Santini and Varvelli, "Libya Lessons: NATO Hears Calls for Better C2, More Targeting Experts."

[85] Ibid.

[86] Schmitt, "NATO Sees Flaws in Air Campaign Against Qaddafi."
[87] Julian Lindley-French, *Britain and France: A Dialog of Decline*, (London: Chatham House, 2010).
[88] "UK-France declaration on security and defence," Declaration at the UK-France Summit, released 17 February 2012, available at http://www.number10.gov.uk/news/uk-france-declaration-security/ The US Air Force insists on labeling such devices "Remotely Piloted Vehicles" (RPV); the US Federal Aviation Administration refers to them as "Unmanned Aircraft Systems" (UAS); other names in common usage are "Unmanned Aerial Vehicles" (UAVs) and "drones".
[89] French Defence White paper, 2008: 72; available at http://merln.ndu.edu/whitepapers/france_english2008.pdf.
[90] *Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review*, (London: HMSO, 2010), Command Paper 7948.
[91] SIPRI Military Expenditure Database 2012, http://milexdata.sipri.org.
[92] Bastian Giegerich, 'NATO's Smart Defence: Who's Buying?', *Survival* 54, (2012), pp. 69–77.
[93] Simon Tilford and Philip Whyte, "Why Stricter Rules Threaten the Euro-Zone," *Centre for European Reform*, London, November 2011.
[94] Andrew Moravcsik, "Europe After the Crisis: How to Sustain a Common Currency," *Foreign Affairs* 91, (May/June 2012): 54-67.

# Toward a NATO-African Union Partnership: Structuring Future Engagement

*By Paul Pryce*[*]

Political activists around the world are becoming increasingly proficient in the use of social media to raise awareness about particular issues and advocate support for their proposed measures. Perhaps one of the most visible examples of this was the recent Kony 2012 campaign, launched by the non-governmental organization Invisible Children. A video posted by the group on the website YouTube received over 100 million views within six days, reaching out to an incredibly large audience to inform them of the crimes committed by Joseph Kony and the Lord's Resistance Army.[1] No YouTube video had previously achieved such popularity so quickly.

However, the Kony 2012 campaign has experienced considerable difficulties in achieving its stated goals. While the video launching the campaign did attain widespread popularity in record time, Invisible Children has thus far been unable to translate high levels of online interest into equally high levels of offline support. For example, an event held in Vancouver, Canada associated with the Kony 2012 campaign had roughly 21,000 promising to attend on Facebook, another social media outlet, but only seventeen actually showed up to call for a greater commitment from 'Western' governments to effect the capture of Joseph Kony.[2]

The Kony 2012 campaign was a first foray into this form of awareness-building and community organizing. As civil society groups become more proficient at mobilizing public support via social media, it stands to reason that future calls for action on security issues similar to that of Joseph Kony and the Lord's Resistance Army might not suffer from some of the same pitfalls encountered by Invisible Children. Some of these campaigns might well relate to African conflicts. After all, there are many potential targets beyond Joseph Kony or Thomas Lubanga, who was recently convicted of war crimes by the International Criminal Court for his role in some of the conflicts plaguing the Democratic Republic of Congo.

[*] Paul Pryce holds a Master of Arts in International Relations from Tallinn University. He currently lectures a number of courses on conflict analysis at the Tallinn School of Economics and Business Administration.

In short, with information on African conflicts increasingly available to 'Western' audiences and with interest in these conflicts rising among those same audiences, there is a significant potential for NATO to be called upon to intervene in one or more African conflicts in the coming years. NATO has engaged in a number of operations related to Africa. The on-going Operation Ocean Shield involves eight NATO member states and follows efforts to protect World Food Programme ships in high-risk waters.[3] Ocean Shield has taken on an important role in anti-piracy efforts in the Gulf of Aden. Furthermore, Operation Active Endeavour sees naval vessels from a number of NATO member states patrolling the Mediterranean, monitoring shipping and combating the potential for terrorist activities off the coast of Northern African countries like Libya. "Through the sharing of data gathered at sea, Active Endeavour has increasingly become an information and intelligence-based operation that deploys surface forces as direct-reaction units to track and board selected vessels."[4] Both Ocean Shield and Active Endeavour have become indispensable aspects of NATO in the early 21st century.

Yet NATO's involvement has not been limited to the high seas. Operation Unified Protector saw NATO intervening directly into an active conflict, with the military personnel and resources of NATO member states engaging in combat with an opposing force. This mission was intended to enforce a no-fly zone over Libya, implementing United Nations Security Council Resolution 1973. According to NATO itself, a total of more than 26,000 sorties were flown by NATO and partner air assets, damaging or destroying more than 6,000 military targets in Libya.[5] After several months, Unified Protector was discontinued by NATO on 31 October 2011. Some time later, however, the full costs of the mission became apparent to the public of some countries that contributed to Unified Protector. For example, it is estimated that the Canadian contribution to Operation Unified Protector, consisting of the deployment of a single naval frigate and six CF-18 fighter jets, totalled $347 million (approximately €269 million), causing some controversy in Parliament and in the media.[6]

If the future of NATO's involvement in Africa is one of increasingly ambitious humanitarian interventions, it will be a costly relationship. A decidedly more cost-efficient form of engagement might be one of cooperation and partnership with relevant security actors in Africa. By assisting in building up the security capabilities of regional and sub-regional

organizations in Africa, NATO can limit the need for the deployment of its member states' personnel and resources, projecting security in a less direct fashion and perhaps even more effective fashion than Unified Protector. In this text, we will examine the potential for a twofold partnership between NATO and the African Union, the actor currently most involved in security issues on that continent. As we will demonstrate, the current level of cooperation between these two organizations is limited, lacking structure and with capabilities often duplicated by contributions from the European Union. Rather than maintaining an inefficient status quo, we will propose here that NATO pursue a political partnership with the African Union (AU), while simultaneously pursuing practical partnerships that would see NATO Centres of Excellence engaging in knowledge transfers with similar structures in Africa.

**African Standby Force**

Should NATO pursue some form of consistent partnership with the AU, arguably the best investment of resources would be in assisting the development of the African Standby Force (ASF). The ASF, as envisioned by AU leaders, will be the primary vehicle by which the AU intervenes in inter-state or intra-state conflicts in Africa. In fact, in July 2003, at a crucial summit in Maputo, Mozambique, AU leaders reached a compromise on a document known as the *Protocol Relating to the Establishment of the Peace and Security Council of the African Union*. "…This document laid the foundation for building the African Peace and Security Architecture by designing its main elements: the Panel of the Wise, the Continental Early Warning System, the Military Staff Committee, the African Peace Fund and, most importantly, the African Standby Force…"[7]

The notion of an African Standby Force is not a new one, however. The idea had emerged in African security discourses quite prior to that 2003 summit in Maputo. Toward the end of its existence, the Organization for African Unity (OAU) considered the creation of an African Defence Force, with the idea eventually being rejected in discussions held in May 1997.[8] Prior to his death, Libyan leader Colonel Moammar Gaddafi had for many years proposed the creation of a single standing African military to protect the continent primarily from security threats from abroad. For many obvious reasons, this proposal for a 'one million strong' single African army did not gain much traction with other AU member states.[9]

More substantive efforts were made still prior to Gaddafi's proposals and the debate on an African Defence Force. The predecessor to the AU, the OAU, formed what was then called an Inter-African Force to intervene in Chad in 1981. This effort to foster a peaceful resolution to that West African state's civil war is widely-reputed to have been a failure.[10] One author sums up the situation in 1981-1982 as follows: "The Inter-African Force was deployed in a complex conflict situation with no proper ceasefire to monitor, lack of clear political goals, an ambiguous mandate, lack of commitment by warring factions, and differences in opinion by OAU member states about the objective of the peacekeeping and intervention force."[11]

Nonetheless, the Inter-African Force endured as a security instrument of the OAU. In 1999, responsibility for the Inter-African Force was turned over to the Economic Community of West African States (ECOWAS), whose membership had essentially formed the bulk of the Inter-African Force's personnel and resources during the 1981 deployment to Chad, in any case. Currently, the Inter-African Force is being reformed into the ECOWAS Standby Force, a regional division of the envisioned ASF. This ECOWAS Standby Force is to be composed of 6,500 military personnel and police. Furthermore, three training centres have been established, possessing a structure somewhat similar to that of the NATO Centres of Excellence, though with far less specialized mandates. These training centres include the National Defence College in Nigeria (aimed at strategic level planning), the Ecole du Maintien de la Paix in Mali (specializing in tactical level planning), and the Kofi Annan International Peacekeeping Training Centre in Ghana (concerned with the operational level).[12]

Rather than pursuing a single centralized instrument for intervention, such as that proposed by Gaddafi or expressed somewhat in the formation of the Inter-African Force, the AU has pursued a significantly decentralized approach. Responsibility for planning and forming components of the ASF has been delegated to the sub-regional organizations that have emerged as the AU's partners. There are five different regions, each with an assigned brigade of the ASF. These regions and brigades correspond to a sub-regional organization – the North is coupled with the Arab Maghreb Union (AMU), the East with the Inter-Governmental Authority on Development (IGAD), Central with the Economic Community of Central

African States (ECCAS), West with the aforementioned ECOWAS, and the South with the Southern African Development Community (SADC).

Each brigade of the ASF is to be composed of police units, civilian specialists, 300-500 military observers, and approximately 3,000-4,000 troops.[13] Thus, given the limited size but myriad capacities of each brigade, it stands to reason that each ASF brigade would function as a rapid response unit to emerging crises, or else would function as the core of a more considerable United Nations or AU mission. This is perhaps in keeping with the missions and institutions from which the AU derived its inspiration for the creation of the ASF at the 2003 Maputo summit. It could be said that, in its approach to forming the ASF and articulating its structure, the AU derived its inspiration chiefly from three sources: the African Union Mission in Burundi (AMIB), the series of operations undertaken by ECOWAS between 1990 and 2003, and the Standby High-Readiness Brigade (SHIRBRIG). It is worth discussing these three sources of inspiration in greater detail before delving into the opportunities for NATO and other external actors to assist in enhancing the coherence and capabilities of the ASF.

The first source of inspiration to be addressed here, AMIB, was deployed just months prior to the Maputo summit that set out the particulars of the African Peace and Security Architecture. In April 2003, Ethiopia, Mozambique, and South Africa committed some 3,000 troops to assist in resolving Burundi's intra-state conflict, following a call by the AU's relevant decision-making bodies for the deployment of just such a peacekeeping mission. According to most accounts, AMIB successfully carried out its mandate, creating conditions that allowed for the deployment of a follow-up mission by the United Nations.[14] This seemed to demonstrate to African policymakers the virtue of reigning in ambitions, setting specific and attainable targets for AU deployments.

The second source of inspiration is derived from ECOWAS' long history of intervention and conflict resolution. The deployment of the Inter-African Force to Chad in 1981 was seen as a first attempt hampered somewhat by the political interference of other OAU member states not in the immediate West African region. It might be surprising to some onlookers that ECOWAS should be the pioneer of humanitarian intervention in Africa, given that the organization through much of its

history rationalized non-interference in regional conflicts on the basis of preserving the principle of state sovereignty.[15] But, in the years that followed the difficulties of 1981, ECOWAS member states increasingly undertook interventions under the auspices of ECOWAS itself, rather than looking to the OAU and later the AU. The first of these region-directed efforts was the ECOWAS Monitoring Group (ECOMOG) that was initially formed in 1990. This was an ad hoc force, intended to intervene into the Liberian civil war and create conditions for a ceasefire.[16] Later, ECOMOG would be re-deployed to Sierra Leone, attempting to resolve the civil war there between 1998 and 2000.[17]

While ECOMOG ultimately proved to be less successful than the later AMIB, ECOWAS seemed to learn from some of its lessons in Liberia and Sierra Leone during the 1990's. In 2003, a short few months after the Maputo summit, the ECOWAS Mission in Liberia (ECOMIL) was deployed. ECOMIL involved troop commitments from eight ECOWAS member states and greater burden-sharing than in the 1990s missions, which ensured that ECOMIL would not be as reliant upon Nigerian troop commitments as ECOMOG had been. But responsibility for military planning was placed solely with Ghana. As such, ECOMIL forces were unable to deploy beyond the Liberian capital of Monrovia due to lack of logistical planning and a limited number of troops from the contributing ECOWAS member states.[18] After a ceasefire agreement was reached among the parties to the Liberian conflict in September 2003, ECOMIL was replaced by a more comprehensive United Nations peacekeeping mission.

Around the same period as the deployment of ECOMIL, ECOWAS was also deploying the ECOWAS Mission in Cote d'Ivoire (ECOMICI) to address instability in that country. Initially, ECOMICI deployed only 1,288 troops from nine ECOWAS member states. Nigeria, which had been the backbone of previous missions to Liberia and Sierra Leone, now contributed only five troops but pledged a significantly greater contribution.[19] Furthermore, ECOMICI encountered problems of logistical planning, which led to a slow and very limited deployment of personnel. "By February 2003, there were approximately 3,000 French soldiers and only 500 ECOWAS troops on the ground. While ECOWAS struggled to complete its deployment, the French continued deploying

their troops with their high mobility and superior reinforcement capability."[20]

Together with the Inter-African Force, the experiences of ECOMOG, ECOMIL, and ECOMICI led to ECOWAS forming ECOBRIG as its regional contribution to the ASF. All of these progenitors suffered from similar problems. Lack of sufficient logistical and operational planning hampered the effectiveness of the operations, leading to small and slow deployments that were oftentimes limited to the capital city of the host country. There was also the problem of dependence on regional powers in many of these missions. "Nigeria's role in ECOBRIG is presently considered sine qua non for its viability and credibility and it is, therefore, in the institutional context of ECOWAS that Nigeria's role in a multi-lateral defence structure can be meaningfully considered in the immediate term…"[21] This dependence on regional powers might well be an unavoidable pitfall, though. Much as ECOWAS has frequently depended on Nigeria in its interventions, it could be said that NATO has also frequently depended on the United States of America to lend force to its security guarantees.

Having discussed the examples of AMIB and the ECOWAS operations, it is also worth noting the degree to which the ASF has been inspired by SHIRBRIG. This Danish-led initiative was intended to create, as its name suggests, a standby brigade which could react rapidly to emerging crises or conflicts. Declared ready for operations at the start of 2000, SHIRBRIG comprised roughly 4,000-5,000 troops at any given time, drawn from twelve countries: Argentina, Austria, Canada, Denmark, Finland, Italy, Netherlands, Norway, Poland, Romania, Spain, and Sweden. The aim of SHIRBRIG was to deploy early on in an emerging conflict, operating independently for up to 60 days before a more comprehensive mission could be deployed by the UN or a relevant regional organization. This is similar in many respects to the intent reflected in the ECOWAS missions fielded around the time of SHIRBRIG's creation.

SHIRBRIG provided the initial headquarters for the UN Mission to Eritrea-Ethiopia (UNMEE) in 2000, force headquarters for the UN Mission in Sudan (UNMIS) in 2005, advisory personnel for the UN Mission in Liberia (UNMIL) in 2003, and the UN Advance Mission in Sudan (UNAMIS) in 2004.[22] SHIRBRIG also avoided one of the

shortcomings encountered by ECOWAS by not relying on contributions from all the states involved. "The SHIRBRIG brigade pool is comprised of a number of similar units exceeding the force requirement. This ensures the deployment of the brigade even if one or more participants decide not to provide troops for a given mission…"[23] This proved to be an important feature of SHIRBRIG in its first deployment, assisting UNMEE in November 2000. Citing financial constraints, the governments of Argentina and Romania opted out of contributing personnel and resources to that deployment. As a result of the expansive brigade pool, units from other contributing states were drawn upon in order to compensate for the lack of Argentine and Romanian participation.

Unfortunately, SHIRBRIG ceased operations in June 2009. "…The ASF scheme has been explicitly modelled on SHIRBRIG and could in time lead to a coherent African peacekeeping and crisis management system. By supporting the SHIRBRIG-AU and SHIRBRIG-UN channels and mechanism, the EU itself could have increased its own impact and demonstrated its commitment…"[24] Instead, the creation of the EU Battlegroups in 2007 led to military resources increasingly being diverted from SHIRBRIG to this new instrument of EU security policy. Given that nine of the twelve countries contributing to SHIRBRIG were also EU member states, though Denmark has opted out of contributing to the EU Battlegroups, SHIRBRIG was left starved for resources. It is regrettable that the EU did not provide for a knowledge transfer between SHIRBRIG and other security institutions prior to June 2009.

Ultimately, the AU has seen these three cases – AMIB, the ECOWAS missions, and SHIRBRIG – as the template for the ASF. All of these examples were rapid reactions to emerging crises, deploying as quickly as they could manage to address a conflict in its earlier stages. This limits the expansion and intensification of the conflict, while also helping to create conditions necessary for the deployment of more comprehensive UN missions. The problems encountered by the former two cases related to a lack of logistical planning, dependence on regional powers, and the lack of standardization in training and equipment across all contributing states. The third case, SHIRBRIG, helped to at least address the problems of logistical planning and dependence on states like Nigeria or Ethiopia for personnel. With SHIRBRIG out of action, an innovative solution must be found in order to ensure that the ASF does not become a failed project.

## The NATO/EU Dynamic

Having briefly touched upon the closure of SHIRBRIG and the unintended effect the creation of the EU Battlegroups had upon efforts to implement the African Peace and Security Architecture, it is important to examine the degree to which the competition between NATO and the EU has in the past sometimes hindered AU operations. In highlighting the lack of efficiency inherent in the status quo, it will become all the more apparent how vital it is that NATO seek political and practical partnership with the AU and the sub-regional organizations involved in the ASF.

As has been pointed out here and by other scholars elsewhere, "on the regional institutional level, NATO-African Union relations have witnessed limited cooperation."[25] Regrettably, NATO's new Strategic Concept does not explicitly mention Africa once. Operations Ocean Shield and Active Endeavour appear to have minimum input from the AU, conveying a view that holds African states, and Africa as a whole, as an object to be acted upon rather than a security actor capable of its own agency. The 2003 European Security Strategy, meanwhile, mentions Africa a few times, stating, "Sub-Saharan Africa is poorer now than it was 10 years ago. In many cases, economic failure is linked to political problems and violent conflict. Security is a precondition of development."[26]

Yet some tangible contributions to African peace and security have been made by both the EU and NATO in conjunction with the AU. An illustrative example of this would be the AU Mission in Sudan (AMIS). With the conflict in the Darfur region of Sudan intensifying, the AU sought to take action in 2004, setting out the mandate for AMIS. Few member states were willing to offer resources to see that operation come to fruition. "…AMIS, without external support, soon appeared unable to carry out a peace operation, due to its lack of funds, equipment and its ineffective management of resources."[27] The AU reached out for support from external actors, seeking to obtain the funds and equipment necessary to implement the AMIS mandate.

"By 24 May [2005], NATO had agreed that the elements to be provided to the AU would include strategic airlift, training (command and control, operational planning), and the use of intelligence by AMIS."[28] Rather than a coordinated response from both NATO and the EU, though, the two organizations launched entirely separate assistance operations that largely

replicated contributions. On a more positive note, the EU increased the finances available for humanitarian aid in Sudan to €91 million[29] and a highly successful donor conference was held in conjunction between the EU and AU. "In essence, the European Union financed most of the African Union's mission and made it possible."[30]

It would appear that the EU is attempting to quickly develop credibility for itself as a security actor, even as much debate remains among the EU member states themselves as to what role the EU should have in the realm of security and defence policy. For example, "on 7 April 2010, the Council of the EU initiated an EU military training mission for Somali security forces (EUTM Somalia), and training started in May 2010. Somali forces are being trained in Uganda, in conjunction with AMISOM."[31] While the need for Somali security forces to receive adequate training cannot be over-emphasized, EUTM Somalia is not an isolated case. The EU has increasingly become involved in training and the provision of other military resources in Africa, even where it duplicates existing efforts undertaken by NATO.

Rather than duplicate efforts, it would be best for NATO to assume a leadership role in the area of knowledge transfers. The Alliance has cultivated a wealth of experience from implementing successful peace support missions across several decades, whereas the EU has only recently assumed security capabilities of its own. For example "the experience that NATO has accrued in Active Endeavour and other maritime interdiction operations has given the Alliance unparalleled expertise in this field."[32] Institutional memory might be NATO's greatest asset, and sharing this institutional memory with the AU and its budding ASF would be a significant contribution – one that the EU would be hard-pressed to offer. This is not to say that the EU should disengage from Africa entirely, ceding all responsibility to NATO. "Unsurprisingly, the ASF's high cost has compelled African leaders to seek international support for the force. A joint Africa/G8 Action Plan aims to bolster African peace support capabilities, with the G8 providing substantial technical and financial assistance."[33] Much as the EU's financial contributions ensured the success of AMIS, the capacity for the EU to arrange the financial resources necessary for the ASF is of integral importance to this project. Delivery of the requisite financial assistance could be made conditional based on a series of benchmarks set out on the basis of an agreement between the EU

and the AU. The AU's own ASF Roadmap could serve as a foundation for such a conditionality framework.

More financial contributions from the AU member states themselves will no doubt need to be expected in future as well. It has been noted that, at the time of the AMIS deployment, close to 75% of the entire annual AU budget came from only five countries: South Africa, Egypt, Libya, Nigeria, and Algeria. Meanwhile, wealthier African states like Angola or Botswana contribute little to the annual AU budget.[34] Aside from contributing financially to future missions undertaken by fully operational ASF brigades, the EU could help to encourage the articulation of better burden-sharing arrangements among AU member states when it comes to extra-budgetary concerns like AMIS.

The outline for EU financial assistance to the ASF is not within the purview of this text, however. Having examined the disjointed pattern of relations between NATO, the EU, and the AU, and having outlined how the responsibilities might be better distributed between NATO and the EU in relation to the ASF, it will now be possible to explore in greater detail the form the NATO-AU partnership could take in future years. The aforementioned loss of SHIRBRIG's institutional memory is a costly one for African security, but a structured exchange of best practices between NATO, the AU, and its sub-regional organizations could ensure the operational effectiveness of the ASF brigades and perhaps even lead to developments in NATO's own training standards.

**Results-Based Partnership**

NATO has enjoyed a number of partnerships with non-members in recent years. The Partnership for Peace (PfP), launched in early 1994, includes 22 countries, ranging from Switzerland to Turkmenistan. Twelve countries have gone from participating in the PfP to full NATO membership. Around the same time the PfP was launched, NATO also initiated the Mediterranean Dialogue, which currently involves seven countries. It must be noted that more than half of these countries are also members of the African Union – Algeria, Egypt, Mauritania, and Tunisia. The Chicago Summit Declaration, adopted by the heads of state and government participating in 2012's North Atlantic Council, extended an invitation to Libya to also participate in the Mediterranean Dialogue.[35]

The Istanbul Cooperation Initiative, launched in 2004, seeks to intensify the relationship between NATO and its partners in the Mediterranean Dialogue. Thus far, only Bahrain, Qatar, Kuwait, and the United Arab Emirates have joined the Initiative. Amidst the interplay of current globalizing forces, interest in trans-regional forums has grown. The Asia-Europe Meeting, the Asia-Pacific Cooperation, and the ASEAN-EU dialogue are all examples of the growing interest in trans-regionalism being expressed through the establishment of institutions that can foster dialogue.[36] The PfP, Mediterranean Dialogue, and the Istanbul Cooperation Initiative are also attempts by NATO to foster this trans-regional dialogue. But no similar structure exists between NATO and African partners, aside from the participation of a few Northern African states in the Mediterranean Dialogue.

One concern that could be raised with regard to the question of a future NATO-AU partnership is whether AU member states would be willing to participate. A NATO initiative might be viewed with suspicion, regarded as an attempt at paternalistic interference in African affairs. After all, "during the first decade of NATO's existence the colonial powers (mainly Britain and France, to a lesser extent Belgium and the Netherlands) sought to integrate Africa centrally within the alliance's security system and contingency planning."[37] This was largely intended to ensure continued security dependence of these colonies on their corresponding imperial powers. If the PfP is to be the template for NATO-AU partnership, then there is the application of democratization criteria by NATO to the AU member states that could place a strain on relations at the outset.

These concerns are not justified. While the PfP does deal somewhat with democratization, the Istanbul Cooperation Initiative does not explicitly deal with this area but does to some degree facilitate indirect democratization through security sector reform.[38] Meanwhile, the Mediterranean Dialogue, which might perhaps be the closest example of a template for future NATO-AU partnership, has as its main objective raising awareness of Mediterranean issues affecting NATO member states, as well as introducing modern concepts of good governance and cooperative patterns of international behaviour within the region.[39]

A more pertinent question to address regarding a future NATO-AU partnership would relate to what actors ought to be involved. Clearly, the

intent would be to express solidarity and acknowledge shared purpose between the institutions of NATO and the AU. NATO's existing partnerships are with collections of states. Would this partnership then best be one shared between the institutions of NATO and the AU, with AU member states opting in as they wish? Such a scenario would likely lead to an unnecessarily complex NATO-AU relationship, given that there are 54 AU member states. This 'Partnership for Africa' would be more than double the size of the existing Partnership for Peace, NATO's largest framework for partnership with external actors.

A better approach might be to extend an invitation for engagement to not only the AU but also the sub-regional organizations involved in the ASF. Were a broader relationship to be sought with all sub-regional organizations in Africa, moving beyond those directly contributing to the ASF, crowding would again be a problem. "One of the problems encountered in African integration as a whole is the proliferation of arrangements that often overlap. Nowhere is this more evident than in southern Africa, where three arrangements converge: the Southern African Customs Union (SACU), the Southern African Development Community (SADC), and the Common Market for Eastern and Southern Africa (COMESA)."[40]

Therefore, an effective 'Partnership for Africa' would include NATO, the AU, ECOWAS, IGAD, AMU, ECCAS, and SADC. This would facilitate dialogue among the seven organizations on issues specific to the ASF, as well as more general matters. With the ASF brigades becoming increasingly effective operationally, this partnership among the seven institutions could then take on a character more similar to that of the Mediterranean Dialogue and Istanbul Cooperation Initiative or could be re-oriented toward another project. This dialogue and political partnership could also become an important forum for discussing a future NATO intervention into an African conflict, should the need emerge at some point.

Pursuing the establishment of a 'Partnership for Africa' is of paramount importance and should very likely precede any efforts by NATO to structure practical partnerships, such as the coupling of NATO Centres of Excellence with ASF regional training centres to be discussed here later. Rather, the political partnership between NATO and all relevant actors should come first. This will allow for NATO's training assistance to be

delivered efficiently and effectively, further limiting the capacity for overlap or duplication of efforts.

The designation of regional training centres, referred to by the AU itself as 'technical workshops', has been somewhat more logical. These are being hosted by South Africa, Angola, Ethiopia, Ghana, and Kenya. But it is the designation of the locations for some of the ASF brigade components that is cause for concern. An illustrative example of this would be East Brigade (EASTBRIG), IGAD's contribution to the ASF. The EASTBRIG headquarters has been assigned to Kenya, but the Planning Element (PLANELM) is based in Addis Ababa, Ethiopia. "While the separation of the two headquarters is politically expedient, especially in light of tension between certain members of the EASTBRIG, it portends nothing short of operational disaster to keep the two arms apart."[41] Command and control of EASTBRIG at all stages of deployment will become highly convoluted if the key structures of this brigade are distributed between Nairobi and Addis Ababa.

Indeed, what seems to be urgently needed in the process of developing the ASF is structure. The 'Partnership for Africa' discussed here would lend that much needed structure, not just in terms of the distribution of constituent organs, like EASTBRIG PLANELM, but also in terms of the relationship between the AU and its sub-regional organizations. As was previously stated, integration processes in Africa have resulted in a melange of organizations, with memberships over-lapping to a degree that is admittedly quite confusing to most observers. The example of southern Africa was previously mentioned. In the case of EASTBRIG, IGAD is the immediately responsible sub-regional organization but it also must be noted that some IGAD members are also member states of East African Community (EAC) or the Common Market of East and Southern African States (COMESAM).

This has led to inter-institutional disputes over the possible off-loading of responsibilities regarding the ASF, with IGAD and other sub-regional organizations struggling to develop means of burden-sharing, especially in terms of financial support for the regional ASF brigades. The AU could, and more than likely should, take a leadership role in the resolution of these disputes. "While Article 13 of the AU Peace and Security Protocol authorized the establishment of the ASF, it did not spell out arrangements

with sub-regional organizations. Instead, the AU has had to establish memoranda of understanding with sub-regional organizations and member states, which has been slow to transpire."[42] If the 'Partnership for Africa' is to be an instrument in ensuring the implementation of the ASF project, then it can also serve as a means by which to resolve disputes among sub-regional organizations. If other institutions wish to become involved in the ASF project, then they could apply for membership in the Partnership, with NATO and its African partners determining together whether to accept or reject such an application.

To draw upon the example of EASTBRIG, this would mean NATO counselling IGAD and the AU on the problem of divorcing PLANELM from the rest of the EASTBRIG command structure. At the same time, the Partnership's members would consult with one another on the issue of whether the EAC and COMESAM should be invited to participate in the Partnership and/or the ASF project as equal members, associate members, or at all. In fact, accepting the applications of these two other Eastern African sub-regional organizations, essentially coupling them with IGAD on the development of EASTBRIG, could help to put additional pressure on 'freeloaders' – Eastern African states that have been avoiding contributing to the ASF project, despite being parties to the AU Peace and Security Protocol.

**Training Assistance and NATO Centres of Excellence**

Beyond the benefits of a political partnership encompassing NATO and relevant African institutions, the accompanying practical partnerships are of even greater potential value to the operational effectiveness of the ASF, the credibility of NATO as a vehicle for stability transfers, and the peace and security of Africa. This would come first and foremost in the form of training assistance for units comprising regional ASF brigades. Training assistance is a form of aid most clearly needed as the AU embarks on the ASF project. The various ECOWAS missions discussed previously were often negatively impacted by a lack of logistical planning, for example. SHIRBRIG's assistance helped to ensure that UNMEE and other missions would not succumb to the same shortcomings. Training assistance on strategic and tactical level coordination would help to mitigate the impact of SHIRBRIG's closure.

But training assistance is rarely provided in Africa by external actors. In 2009, military forces from Burundi, Kenya, Rwanda, Tanzania, Uganda, and the United States of America participated in Natural Fire, a US-sponsored exercise designed to improve collective responses to complex humanitarian crises in East Africa.[43] Aside from one-off exercises like Natural Fire, there are few other actual examples that can be cited. The aforementioned EUTM Somalia is a first attempt by the EU to provide sustained training assistance to an African partner, so even this ambitious project could be regarded as a one-off project and not the vehicle for an intensive instrument of training assistance for military personnel of AU member states.

In some respects, a practical partnership in the realm of training assistance would be problematic. The ASF brigades are not standing units. Rather, much like with SHIRBRIG, each ASF brigade consists of a pool of units drawn from a number of contributing states and which are rotated out at various intervals. Under such circumstances, the risk would be that NATO training assistance would have an impact in the short term but would need to be regularly repeated in the long term as units are swapped out of the brigade pool and replaced.

This, however, assumes that NATO's training assistance would adopt an approach similar to that of EUTM Somalia or Natural Fire. This attempt by the EU, in the case of the former, to reinforce the security capabilities of the Transitional Federal Government (TFG) in Somalia involves the training of TFG military forces in Uganda over the course of a 14-month period.[44] This approach supposes a sustained interaction between trainers from an external party (in this case, the EU member states) and the military forces requiring training (for example, Somali TFG forces). If the intent is to support the development of the ASF, then an undertaking by NATO to provide training assistance would either require a massive investment of resources or a different approach to that of EUTM Somalia.

Fortunately, NATO currently possesses structures well-suited to the delivery of specialized training assistance in a targeted fashion: the NATO Centres of Excellence. According to NATO, "Centres of Excellence (COEs) are nationally or multi-nationally funded institutions that train and educate leaders and specialists from NATO member and partner countries…" and assist in expanding the Alliance's capacity to operate in

varying environments under diverse conditions.[45] Many of these COEs take the form of research hubs, with experts spending time not just training personnel from NATO and its partner countries but also working on policy and technological solutions to specific challenges currently facing the Alliance.

There are currently 16 NATO accredited COEs in operation. Three additional COEs are currently in development. These are coordinated by Alliance Command Transformation (ACT) in Norfolk, Virginia in the United States of America. As these COEs obtain direction from ACT, they remain officially NATO bodies but are outside the traditional NATO command structure, offering them considerable freedom in determining their respective research priorities. In fact, the principal decision-making body of each COE is a Steering Committee made up of representatives of the Host Nation and Sponsoring Nations. The Host Nation is, as the name suggests, the country where the COE is located. The Sponsoring Nations are all those NATO member states which are signatories to the agreements specific to that COE and which contribute personnel and funding for the operational budget.

It is worth noting that the vast majority of Host Nations are EU member states. Of the NATO accredited COEs, only three are not located on the territory of EU Member States: Cold Weather Operations in Bodø, Norway; Combined Joint Operations from the Sea in Norfolk, Virginia in the United States; and Defence Against Terrorism in Ankara, Turkey. All three of the COEs currently in development are also located on the territory of EU member states. Within NATO, there are certainly more EU member states than non-members. But the degree to which EU Member States play host to COEs is also disproportionate to their number.

In any case, it appears that the previously mentioned 'technical workshops' designated by the AU would be Africa's equivalent to the NATO COEs. "A number of regions have also been designated centres of training excellence to conduct tactical, operational, and strategic training."[46] However, the mandates of these regional centres are much vaguer than those of the NATO equivalent. A centre operated by SADC in South Africa is tasked with developing ASF doctrine. Another centre run by ECCAS in Angola is responsible for the development of a common

logistic system. A centre hosted by the AU itself in Addis Ababa is tasked with developing a common command, control, communication and information system (C3IS) for the ASF. The ECOWAS centre in Ghana is responsible for developing standard operating procedures (SOPs) for the ASF. Finally, the IGAD centre in Kenya is responsible for developing a common training regimen for ASF units, as well as a system for evaluating troop readiness.[47]

As one can discern from these mandates, some ASF-related regional centres have very specific responsibilities, such as the ones operated by ECCAS and the AU. Logistical and strategic planning are also areas where AU and sub-regional organizations have encountered deficiencies in the past. However, the responsibilities of many of the other regional centres – namely those operated by ECOWAS, IGAD, and SADC – are unnecessarily vague. Developing SOPs for the ASF, as in the case of the ECOWAS centre, could conceivably come to encompass all aspects of ASF operations. Once again, it appears that a lack of structure has emerged as a serious obstacle to the development of the ASF.

Some form of partnership between the AU training workshops and the NATO COEs could better structure the practical work on the ASF, while also allowing for an effective knowledge transfer between NATO and the AU. The participation of countries outside NATO in the work of NATO COEs would not be unprecedented. Non-NATO EU member states have remained almost completely disengaged from the work of the COEs. The sole exception has been that of Finland, which is counted as a Sponsoring Nation of the COE for Operations in Confined and Shallow Waters, based in Kiel, Germany. The participation of Finland in the work of the CSW COE should not necessarily be taken as a testament to outreach efforts by NATO or by that particular COE. Rather, the Finnish Navy has had a demonstrably strong interest in operations in confined and shallow waters. For example, in September 2010, Finland played host to Northern Coasts 10. Northern Coasts is a large-scale multinational naval training exercise that takes place in one part of the Baltic Sea or another each year. It is intended "…to improve the interoperability between participating units and countries with main emphasis on maritime operations in confined and shallow waters."[48]

The CSW COE also routinely provides support for Northern Coasts. For example, at the 2010 edition hosted by Finland, the CSW COE made contributions that focused on three areas of training: high speed boat operations in confined and shallow waters, force protection in an anchorage or harbour environment, and surface-to-surface missile deployment in confined and shallow waters.[49] Through this involvement, the CSW COE has been able to impart its expertise to military personnel of non-NATO EU Member States that are not Sponsoring Nations, since these countries may be participating in the training exercises. At Northern Coasts 10, this was the case for Swedish personnel.

But this is not to say that the ideal form of engagement would have each individual AU member state or each separate sub-regional organization opting into the work of the myriad NATO COEs as Contributing Nations. The Finnish example is cited here only to demonstrate the precedent that membership in NATO is not a pre-requisite to participating in the work of the COEs. Perhaps the best approach would rather be for a NATO COE to be formed to deal specifically with Africa-related security issues. This COE could serve as a hub for the collection of relevant best practices from the other COEs and then relaying this information to the ASF technical workshops. Such a format would not be geared toward training in such a comprehensive fashion as EUTM Somalia but would instead "train the trainers", interacting with experts at the ASF technical workshops with the understanding that NATO best practices would be integrated into, for example, the training regimes developed by the IGAD-operated regional centre.

This Africa-oriented NATO COE would have to engage in intensive work, determining what information to share and from which COE. For example, policy and technical solutions to cyber-warfare and cyber-terrorism developed by the NATO Cooperative Cyber Defence Centre of Excellence (CCD COE) in Tallinn, Estonia might not be relevant to the work of the ASF. But best practices from the NATO Counter-Improvised Explosive Devices Centre of Excellence (C-IED COE) in Madrid, Spain might be pertinent to the development of SOPs for the ASF. In this sense, an Africa-oriented NATO COE would serve a threefold function: a liaison between NATO and the African Peace and Security Architecture, a hub for the collection of relevant best practices and information, and a

matchmaking service between NATO COEs and ASF technical workshops.

The concern here would not be a lack of work for the Africa-centric NATO COE but an overabundance of it. Beyond the example of sharing best practices on countering IEDs, there is the issue of accountability and civil-military cooperation in ASF units, especially given the apparent intent for ASF deployments to precede more comprehensive peacekeeping or peacebuilding operations. "Appropriate, robust accountability mechanisms do not appear to have been considered or discussed in the numerous meetings that led to the design and formation of the ASF concept."[50] This could emerge as a liability in the future, undermining the credibility of the ASF and hindering the success of deployments. A remedy to this might be for NATO Civil-Military Cooperation COE (CMC COE) in Enschede, Netherlands to partner with either the ECOWAS, IGAD, or SADC technical workshops, or some combination thereof, to develop strategies and SOPs for civil-military cooperation and addressing any alleged human rights abuses by ASF personnel on deployment.

The Africa-centric NATO COE could also become involved in the development of policy solution itself, rather than simply serving as a clearinghouse of information from other COEs. This would be most apparent in the area of ASF doctrine – the tasking assigned to the SADC-led technical workshop. "Inclusive intergovernmental bodies such as IGAD (and the AU) are not performance based but aspirational in nature."[51] The principle of conditionality exercised by NATO in its oftentimes long and difficult membership negotiations ensures that NATO is a performance-based institution. The same can be said of the EU with its exacting accession criteria. Inclusivity has guaranteed membership in the AU for all African states, regardless to what extent these states are willing to fulfil certain responsibilities or criteria. This has resulted in divergent doctrines being espoused by different sub-regional organizations in Africa, potentially leading to an utter lack of interoperability between ASF brigades.

A very clear example of this can be seen in the divergent approaches of ECOWAS and IGAD to security issues, which may lead to a lack of interoperability between EASTBRIG and ECOBRIG. "With its emphasis on military solutions to conflicts in West Africa, ECOWAS can be said to

represent a top-down approach, whereas IGAD's emphasis on low-level early warning systems suggests a bottom-up approach."[52] This is in part because IGAD has approached the development of EASTBRIG as an issue of importance but not necessarily of central importance. That is to say, when it comes to regional security, IGAD has looked more so to the development of a Conflict Early Warning Mechanism (CEWARN).[53] In effect, the divergent approaches to conflict resolution of ECOWAS and IGAD could make the former comparable to NATO and the latter comparable to the Organization for Security and Cooperation in Europe (OSCE). ECOWAS possesses a component for pursuing military solutions to existing or emerging conflicts, while IGAD predominantly detects emerging conflicts. This has resulted in CEWARN examining deeper social and economic triggers to armed conflict.[54]

While CEWARN is doubtless an important tool in the array of security instruments available for conflict resolution and conflict management in Eastern Africa, CEWARN alone is insufficient. IGAD must commit to developing EASTBRIG on a very tight timetable, which will mean investing greater resources into the ASF project. The long enduring instability in Somalia remains a security threat to several Eastern African states, and EASTBRIG could become integral to future peace support operations in the Horn of Africa. In 2006, the AU delegated responsibility for humanitarian intervention into Somalia to IGAD. IGAD accepted this responsibility and attempted to form the IGAD Peace Support Mission in Somalia (IGASOM). Ultimately, IGASOM failed to materialize, and ultimately Ethiopia intervened into Somalia with US backing.[55] The Ethiopian intervention was followed shortly thereafter by the AU Mission in Somalia (AMISOM). But this attempt to substitute the unilateral action of Ethiopia with a multilateral response also fell through. "AMISOM could not operate effectively, given that it never received the number of troops that had been authorized by the AU."[56] Nonetheless, AMISOM is an on-going operation, set to come up for review again in 2013.

The valuable information provided by CEWARN will be for naught if Eastern Africa is left to rely upon the unilateral actions of states like Ethiopia. EASTBRIG will allow for IGAD as a whole to act upon security threats detected by CEWARN. Emphasizing the importance of this might well be one of the greatest benefits an Africa-centric NATO COE can yield. Through engaging with the SADC-led technical workshop, ASF

doctrine can be influenced in such a way as to allow for some regional divergence but to ensure that the divergence is not so substantial that sub-regional organizations possess entirely different doctrines, such as doctrines that see ASF brigades as being of peripheral concern in comparison to other security instruments.

In short, the NATO COEs and AU technical workshops can serve as vehicles for practical partnership between NATO and relevant African security organs. While the 'Partnership for Africa' addressed earlier helps to give greater structure to the AU's strategic vision for the ASF, the practical partnerships pursued between the NATO COEs and AU technical workshops will help to ensure the deployability and interoperability of the ASF brigades and the units within those same brigades. This will likely necessitate the formation of a NATO COE concerned specifically with African security issues, serving as a research centre in its own right as well as a clearinghouse of information from other COEs and a matchmaking service between NATO COEs and AU technical workshops. The process of establishing such a NATO COE may be a complex process, especially with regard to finding NATO member states willing to participate as Contributing Nations, providing personnel and finances for the work of the COE. Therefore, it is imperative that efforts be made in this area soon in order to ensure that the COE is ready as discussions among the various parties to the 'Partnership for Africa' reach an appropriate stage.

## Moving Forward

As has been demonstrated here, there is ample opportunity for NATO to assist in the development of a viable African security instrument in the ASF, moving the concept of an African Peace and Security Architecture forward from the realm of tentative political agreements to actual practice. This requires that NATO and its member states acknowledge a reality that appears to now have been accepted by the AU member states: NATO and the AU do not share the same regional security complex, and thus NATO and other Euro-Atlantic structures cannot be relied upon to conduct humanitarian intervention or peace support operations when and where they are needed in Africa.

For the sake of clarity, we are referring here to Regional Security Complex Theory, a pillar of what has come to be known as the Copenhagen School

in the field of international relations. Barry Buzan and Ole Waever, two Copenhagen School thinkers who first introduced Regional Security Complex Theory into the body of literature, define a regional security complex (RSC) as follows, "A distinctive territorial pattern of security interdependence must exist that marks off the members of a security complex from other neighbouring states."[57] Without clear borders to the interactions within an RSC, the spill-over in analysis would inevitably end with the researcher merely looking at a regional conflict within the framework of the entire international system, returning to something approaching a classical realist analysis.

However, as Buzan and Waever argue, "the formation of RSCs derives from the interplay between, on the one hand, the anarchic structure and its balance-of-power consequences, and on the other the pressures of local geographic proximity."[58] This condition of geographic proximity is crucial in defining an RSC and cordoning it off from the international system and the security interactions of great powers. For example, Somalia and Ethiopia share geographic proximity as neighbouring states as well as a long history of security interactions, even if these security interactions have tended far more so toward conflict than toward cooperation. Therefore, it could be argued that Somalia and Ethiopia form, or at least share, an RSC. Meanwhile, Ethiopia does not share adjacent territory with Venezuela and has very little, if any, history of security interaction with that state. It could therefore also reasonably be said that Ethiopia and Venezuela do not share an RSC.

Another condition established by Buzan and Waever for ascertaining the existence of an RSC is that the security interactions that take place within such a regional unit are defined by a scale of amity and enmity between its members. Other authors have concurred with this principle but have gone further to provide for greater depth of analysis, arguing, for example, that "regional security complexes are mainly constructed by patterns of 'amity' and 'enmity'. These patterns are socially constructed based on historical factors or common cultures."[59] Once again, it is clear that Somalia and Ethiopia share an RSC on the basis of cultural similarities and historical factors. At the same time, Venezuela and Ethiopia share little in the way of cultural similarities and thus cannot be said to share an RSC.

This would help to explain why NATO and EU member states have tended to remain disengaged in African security affairs. While France has shown a propensity to become involved in some Western African conflicts, this is in large part due to the cultural and historical factors referred to previously, with France having been engaged in Western Africa as an imperial power and with several Western African states now belonging to La Francophonie. France can be considered an exceptional case. For example, while the US Department of Defence established AFRICOM in 2007 by means of acknowledging the strategic importance of Africa in international affairs, the United States of America has very rarely intervened in African conflicts.[60] This is because the United States, while certainly remaining the global hegemon, is not part of the RSC or RSCs of Africa.

The process of developing an African Peace and Security Architecture means regionalizing solutions to African conflicts. The ASF and the responsibilities designated to the sub-regional organizations are intended to ensure that interventions will be executed when and where interventions are needed in future conflict situations. In a very real sense, this is an important stage in Africa's post-colonial development, gradually moving away from dependence on Euro-Atlantic security structures and in turn becoming increasingly independent as a continent.

At its core, the challenge facing the development of this African Peace and Security Architecture is the degree to which the RSCs of the African continent have become entangled. The process of integrating the continent into various sub-regional organizations has resulted in confusion over jurisdictions. This need not be a Gordian knot. The tangle of overlapping commitments and institutions can be resolved through a structuring of the relationships necessary for the ASF to succeed. NATO has an important role to play in this regard. The 'Partnership for Africa' addressed previously can serve as a means by which to better define the division of labour in establishing the ASF while also honing the strategic vision and doctrine of this security instrument. No less important will be the practical partnerships formed between AU technical workshops and NATO COEs, ensuring that ASF personnel are equipped with the know-how to accomplish their objectives when deployed on peace support missions.

As the NATO Secretary General, Anders Fogh Rasmussen, expounds the virtues of the 'smart defence' concept to the NATO member states, it is important not to lose sight of one of the Alliance's greatest assets. Through decades of operations and initiatives, some successful and other perhaps less so, NATO has developed considerable institutional memory. This asset, which we could style NATO's 'knowledge dynamic', is something which can be shared with potential strategic partners like the AU and related African sub-regional organizations. This means of projecting stability to other regions beyond the Euro-Atlantic community will be substantially less expensive than interventions like Unified Protector. At the same time, employing this knowledge dynamic might well be more effective, with the ASF and follow-up UN or AU operations having the capacity to remain engaged in peacebuilding activities over a more sustained period than the forces of NATO member states.

---

[1] Antonina Kanczula, 'Kony 2012 in Numbers', *The Guardian*, 20 Apr. 2012, http://www.guardian.co.uk/news/datablog/2012/apr/20/kony-2012-facts-numbers?newsfeed=true [Accessed: 29/05/12]

[2] Mike Hager, 'Kony 2012 campaign fails to go offline in Vancouver', *Vancouver Sun*, 21 Apr. 2012, http://www.vancouversun.com/news/thewest/Kony+2012+campaign+fails+offline+Vancouver/6498106/story.html [Accessed: 29/05/12]

[3] Christopher Daniels, *Somali Piracy and Terrorism in the Horn of Africa* (Lanham, Maryland: Rowman & Littlefield, 2012), pp.134

[4] Jeff Kline, "Maritime Security", in *Securing Freedom in the Global Commons*, ed. Scott Jasper, p.67-82, (Stanford, California: Stanford University Press, 2010) pp.81

[5] NATO member states were not alone in Operation Unified Protector. Sweden, Qatar, the United Arab Emirates, Jordan, and Morocco contributed to the mission.

[6] CBC News, 'Libya mission's final costs reach $347M', *CBC*, 11 May 2012, http://www.cbc.ca/news/canada/story/2012/05/11/pol-libya-mission-costs-department-of-defence.html [Accessed: 29/05/12]

[7] Winrich Kuehne, "Peace Operations and Peacebuilding in the Transatlantic Dialogue – Key Issues" in *International State Building and Reconstruction Efforts: Experience Gained and Lessons Learned*, ed. Joachim Krause & Charles King Mallory, p.117-154, (Opladen, Germany: Barbara Budrich, 2010) p.124

[8] Theo Neethling, "Realizing the African Standby Force as a Pan-African Ideal: Progress, Prospects, and Challenges" in *Journal of Military and Strategic Studies* 8(1). p.1-25, (Calgary, Canada: University of Calgary Press, 2005). pp.5

[9] Christian Lowe, 'Libya's Gaddafi proposes 1-million strong African army', *Reuters*, 14 Dec. 2010, http://www.reuters.com/article/2010/12/14/us-africa-libya-gaddafi-idUSTRE6BD6BF20101214 [Accessed: 29/05/12]

[10] For more on this see: Edmond J. Keller, "Rethinking African Regional Security" in *Regional Orders: Building Security in a New World*, ed. David Lake & Patrick Morgan, Patrick, p.296-317, (University Park, Pennsylvania: The Pennsylvania State University Press, 1997)

[11] David J. Francis, *Uniting Africa: Building Regional Peace and Security Systems* (Aldershot, UK: Ashgate, 2006) pp.122

[12] For more on this see: Rodrigo Tavares, *Regional Security: The Capacity of International Organizations* (New York: Routledge, 2010) pp.40-42

[13] Lindsay Scorgie, *Building African Peacekeeping Capacity: Donors and African Union's Emerging Peace and Security Architecture* (Accra, Ghana: Kofi Annan International Peacekeeping Training Centre, 2007) pp.11

[14] For a more detailed account see: Timothy Murithi, *The African Union: Pan-Africanism, Peacebuilding and Development* (Aldershot, UK: Ashgate, 2005) pp.91-94

[15] Olawele Ismail, "ECOWAS and Human Security" in *ECOWAS and the Dynamics of Conflict and Peace-Building*, ed. Thomas Jaye et al, p.165-182, (Oxford: African Books Collective, 2011) pp.180-181

[15] Rodrigo Tavares, pp.40-42

[16] Funmi Olonisakin, "Challenges of Transforming Africa's Multilateral Security Institutions: ECOWAS and the African Union" in *The African Union and New Strategies for Development in Africa*, ed. Said Adejumobi & Adebayo Olukoshi, p.347-372, (Amherst, New York: Cambria Press, 2008) pp.356

[17] Adekeye Adebajo, *Liberia's Civil War: Nigeria, ECOMOG, and Regional Security in West Africa* (Westport, Connecticut: Lynne Rienner, 2002) pp.64-65

[18] Mark Malan, "Africa: Building Institutions on the Run" in *Peace Operations: Trends, Progress, and Prospects*, ed. Sharon Wiharta et al, p.90-106, (Washington, DC: Georgetown University Press, 2008) pp.93

[19] Adekeye Adebajo, "The Security Council and Three Wars in Africa" in *The United Nations Security Council and War: The Evolution of Thought and Practice since 1945*, ed. Vaughan Lowe et al, p.466-493, (Oxford: Oxford University Press, 2008) pp.481

[20] Lansana Gberie & Prosper Addo, "ECOWAS Efforts to Resolve the Ivorian Crisis" in *Monograph* No.105. p.26-33, (Pretoria: African Institute for Security Studies, 2004) pp.30

[21] Celestine Oyom Bassey & Charles Quarker Dokubo, *Defence Policy of Nigeria: Capability and Context* (Bloomington, Indiana: AuthorHouse, 2011) pp.621

[22] See: Gary Anderson, "Preparing for the Worst: Military Requirements for Hazardous Missions" in *Peace Operations: Trends, Progress, and Prospects*, ed. Donald C. Daniel et al, p.63-70, (Washington, DC: Georgetown University Press, 2008) pp.63-65

[23] Donna Winslow, "The UN: Multinational Cooperation in Peace Operations" in *Military Cooperation in Multinational Peace Operations: Managing Cultural Diversity and Crisis Response*, ed. Joseph Soeters & Philippe Manigart, p.13-27, (New York: Routledge, 2008) pp.18-19

[24] Joachim Alexander Koops, *The European Union as an Integrative Power? : Assessing the EU's 'Effective Multilateralism' Towards NATO and the United Nations* (Brussels: Institute for European Studies, 2011) pp.420

[25] Noha Bakr, "NATO in the Post Cold War Era: Shift of Strategies" in *Assessing the Threat of Weapons of Mass Destruction*, p.28-42, (Amsterdam, Netherlands: IOS Press, 2010) pp.36

[26] European Security Strategy, 2003, pp.2

[27] Daniela Sicurelli, *The European Union's Africa Policies: Norms, Interests, and Impact* (Aldershot, UK: Ashgate, 2010) pp.52

[28] Martin Reichard, *The EU-NATO Relationship: A Legal and Political Perspective* (Aldershot, UK: Ashgate, 2006) pp.271

[29] Ian Manners, "The Normative Power of the European Union in a Globalized World" in *EU Foreign Policy in a Globalized World: Normative Power and Social Preferences*, ed. Zaki Laidi, p.23-37, (New York: Routledge, 2008) pp.35

[30] Denis Gyllensporre, "NATO Engagements in Africa: Is There a Strategy for the Continent?" in *Pursuing Strategy: NATO Operations from the Gulf War to Gaddafi*., ed. Denis Gyllensporre & Hakan Edstrom, p.157-192, (New York: Palgrave Macmillan, 2012) pp.184

[31] James Kraska, *Contemporary Maritime Piracy: International Law, Strategy, and Diplomacy at Sea* (Santa Barbara, California: ABC-CLIO, 2011) pp.96

[32] Daniela Sicurelli. pp.483

[33] Richard Weitz, *War and Governance: International Security in a Changing World Order* (Santa Barbara, California: ABC-CLIO, 2011) pp.97

[34] Cristina Badescu & Linnea Bergholm, "The African Union" in *The International Politics of Mass Atrocities: The Case of Darfur*, ed. David R. Black & Paul D. Williams, p.100-118, (New York: Routledge, 2010) pp.106-107

[35] Chicago Summit Declaration, 2012, http://www.nato.int/cps/en/SID-B83237D5-B60EA88E/natolive/official_texts_87593.htm [Accessed: 29/05/12]

[36] Glen Segell, "NATO's First Mission to Africa – Darfur" in *Order and Disorder in the International System*, ed. Sai-Felicia Krishna-Hensel, p.131-148, (Aldershot, UK: Ashgate, 2010) pp.132

[37] Branwen Gruffydd Jones, *Explaining Global Poverty: A Critical Realist Approach* (New York: Routledge, 2006) pp.128

[38] Rebecca R. Moore, *NATO's New Mission: Projecting Stability in a Post-Cold War World* (Westport, Connecticut: Praeger, 2007) pp.138

[39] Ralph Thiele, *Mediterranean Security After EU and NATO Enlargement* (Rome: Centro Militare di Studi Strategici, 2005) pp.58

[40] Jacqueline Anne Braveboy-Wagner, *Institutions of the Global South* (New York: Routledge, 2009) pp.167
[41] Ademola Abass, "African Peace and Security Architecture and the Protection of Human Security" in *Protecting Human Security in Africa*, ed. Ademola Abass, p.247-283, (Oxford: Oxford University Press, 2010) pp.263
[42] Stephen F. Burgess, *Changing Security Dynamics in Africa, Sources of Conflict, and US Strategy* (Washington, DC: USAF Institute for National Security Studies, 2005) pp.5
[43] Laura R. Varhola & Christopher H. Varhola, (2011). "Regional Engagement in Africa: Closing the Gap Between Strategic Ends and Ways" in *Prism* 2(4), p.99-110, (Washington, DC: National Defence University Press, 2011) pp.99
[44] For more on this see: Joris Larik & Quentin Weiler, "Going Naval in Troubled Waters: The EU, China, and the Fight against Piracy off the Coast of Somalia" in *China and the European Union in Africa: Partners or Competitors?*, ed. Jing Men & Benjamin Barton, p.81-104, (Aldershot, UK: Ashgate, 2011) pp.91-92
[45] NATO, *Centres of Excellence*, 2011, http://www.nato.int/cps/en/natolive/topics_68372.htm [Accessed: 29/05/12]
[46] John Pottgieter & Jakkie Cilliers, "The African Standby Force" in *Africa's New Peace and Security Architecture: Promoting Norms, Institutionalizing Solutions*, ed. Ulf Engel & Joao Gomes Porto, p.111-142, (Aldershot, UK: Ashgate, 2010) pp.118
[47] With information from: African Union, *The African Standby Force*, 2005, http://www.africa-union.org/root/au/auc/departments/psc/asf/workshops.htm [Accessed: 29/05/12]
[48] Finnish Ministry of Defence, *Northern Coasts 10*, 9 Sep. 2010, http://www.puolustusvoimat.fi/wcm/Erikoissivustot/noco2010/English/Overview/ [Accessed: 29/05/12]
[49] COE CSW, *Northern Coasts 2010*, 2011, http://www.coecsw.org/programm-of-work/trials/31-northern-coasts-2010.html [Accessed: 29/05/12]
[50] Leon Kukkuk, "The Police Component of the African Standby Force: Challenges for Accountability" in *Cooperation and Accountability in the Cross-Border Policing of Southern Africa*, ed. Sean Tait & Elrena van der Spruy, p.29-52, (Cape Town: African Policing Civilian Oversight Forum, 2010) pp.30
[51] John Siebert, "R2P and the IGAD Sub-Region: IGAD's Contribution to Africa's Emerging R2P-oriented Security Culture" in *Crafting an African Security Architecture: Addressing Regional Peace and Conflict in the 21st Century*, ed. Hany Besada, p.89-108, (Aldershot, UK: Ashgate, 2010) pp.98
[52] Karin Dokken, "State Responses to Transnational Challenges: The Evolution of Regional Security Organizations in Africa" in *Troubled Regions and Failing States: The Clustering and Contagion of Armed Conflicts*, ed. Kristian Berg Harpviken, p.333-354, (Bingley, UK: Emerald Group, 2010) pp.339

[53] See: Ciru Mwaura, "Principles of the CEWARN Model" in *Early Warning and Conflict Management in the Horn of Africa*, ed. Ciru Mwaura & Susanne Schmeidl, p.169-190, (Lawrenceville, New Jersey: The Red Sea Press, 2002)
[54] Reid Basher & Salvano Briceno, "Climate and Disaster Risk Reduction in Africa" in *Climate Change and Africa*, ed. Pak Sum Low, p.271-284, (Cambridge: Cambridge University Press, 2005) pp.278
[55] See: Alex J. Bellamy, *Global Politics and the Responsibility to Protect: From Words to Deeds*. (New York: Routledge, 2011) pp.175-180
[56] Alexander Orakhelashvili, *Collective Security*, (Oxford: Oxford University Press, 2011) pp.305
[57] Barry Buzan, Ole Waever & Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder, Colorado: Lynne Rienner, 1998) pp.14
[58] Barry Buzan & Ole Waever, *Regions and Powers: The Structure of International Security* (Cambridge: Cambridge University Press, 2003) pp.45
[59] Bezen Balamir Coskun, "Regionalism and Securitization: The Case of the Middle East" in *Beyond Regionalism?: Regional Cooperation, Regionalism and Regionalization in the Middle East*, ed. Cilja Harders & Matteo Legrenzi, p.89-106, (Aldershot, UK: Ashgate, 2008) pp.91
[60] Russell L. Barkely, *AFRICOM: Security, Development, and Humanitarian Functions* (Hauppauge, New York: Nova Science, 2009) pp.2

# Monitoring and evaluation in multifunctional operations – A critical examination of key challenges for military organizations in measuring what matters*

*By David Harriman, Swedish defence Research Agency, FOI*

Monitoring and evaluation (M&E) constitutes the key tool to assess how operations in war-torn countries progress and aims to ensure that tasks and projects are executed efficiently and effectively. Military organizations have a long tradition of planning activities and setting objectives for operations. Less focus has been put on evaluating effects. With the increased influx of multifunctional operations this has become a necessity for military organizations. Despite important developments at the strategic and concept level, M&E-practice in theatre is still lagging behind. This article examines how a number of internal challenges – task-oriented evaluations, reductionist interpretations of the operational environment, poor documentation of operational designs and use of junk arithmetic – obstruct military M&E-processes. These internal challenges are further exacerbated by a number of external challenges – intangible objectives, complex and rapidly changing environments, politicization of success and progress, and parallel operational phases. Many of these challenges are extensive and will require lots of work within military organizations. The road forward is likely to be long and bumpy.

## Introduction

*If the first casualty of war is truth then the second may well be perspective. Nothing is more chaotic than armed conflict or more profoundly in need of sound methodologies to evaluate the international community's efforts to intervene and resolve armed conflict. Yet a conflict zone presents an environment antithetical to the systematic ordering of causality and epistemology towards which evaluation aspires. One of an evaluator's most daunting propositions is to enter the chaos and tragedy in the aftermath of armed conflict and find a way to gauge progress or regression amongst all that seems senseless and lost.*[1]

* Paper presented at the International Society of Military Sciences (ISMS) Conference in Kingston, Canada, 23-24 October, 2012.

Monitoring and evaluation (M&E) in multifunctional operations is a field that has grown considerably the last few years. This is due to the huge amount of financial and human resources that are poured into stabilizing war-torn countries each year, and due to the increased complexity of contemporary conflict management. The ability to bring progress to weak and fragile states is dependent on doing the *right* things, at the *right* time, in the *right* ways[2], and involves actors from different sectors such as defence, development, diplomacy and justice as well as the local community. Participation in multifunctional operations often requires a long-term engagement with respect to the objectives that are to be achieved, ranging from providing security to economic development and state-building. Politicians in countries deploying personnel in these areas have to balance this commitment to domestic pressure for withdrawal and national political considerations. To ensure sound political judgment and relevant and sustainable operations M&E constitutes a crucial tool.

Military organizations have a long tradition of planning activities and creating objectives and strategies for its operations. Less effort has been put on monitoring and evaluating the results of executed tasks. To some extent this is due to that results have been fairly easy to observe, e.g. the number of enemy losses and whether a road has been secured or not.[3] As stated above, the multifunctional context is more complex both with regard to the operational environment and stated objectives compared to traditional military operations, which necessitates a different approach to M&E. Substantial attention has been paid to this issue within the defence community and has led to the development of new doctrines and concepts, e.g. Effects-*based Approach to Operations* (EBAO) and *Assessment of progress*. NATO has also developed an assessment handbook and included a chapter on assessment in its proposed new planning process directive *Comprehensive Operations Planning Directive* (COPD).[4] These developments definitely constitute a push in the right direction and deserve to be cherished. At the same time, the need for improvement is still substantial since in many cases military organizations lack a comprehensive M&E-system in the field.[5] This makes it difficult for military commanders to know how operations impact on the operational environment and risks leading to skewed decision-making that could threaten operational progress.

The purpose of this article is to analyze and compile key military challenges to M&E processes in multifunctional operations. The purpose is also to identify challenges that are external, i.e. structural and/or due to environmental circumstances, and internal, i.e. actor-oriented, and explore how these interact. The analysis primarily builds on reported field experiences from the operation in Afghanistan. This is the largest ongoing multifunctional operation and forms a logical starting point for the current topic. The analysis further explores challenges that are connected to the general configuration of military organizations, such as doctrine, tradition, procedures and mindset. The focus of this article is on the assessment of effects and results. It does not address other kinds of evaluations that military organizations conduct, e.g. battle damage assessments (BDAs), validation of units (e.g. Operational Capabilities Concept Evaluation and Feedback – OCC E&F) and lessons-learned (LL).

The main source of information for this article consists of research conducted by the Swedish defence Research Agency[6] and open-source reports on the M&E-processes implemented in the operation in Afghanistan.[7] Another key source of information consists of research conducted within the international defence and concept development project, Multinational Experiment 6 (MNE6).[8] The outline of this article is as follows: the first section defines a number of key concepts, namely multifunctional operations, M&E, assessment, effect and result. The next section entails a thorough analysis of external and internal challenges that are of key importance to military organizations when it comes to M&E. The final section discusses the main conclusions of this article.

## Concepts and definitions

### Multifunctional operations

There is no agreed upon definition of what a multifunctional operation is. In generic terms it refers to international civil-military operations in conflict environments that serve to stabilize weak and fragile states. Multifunctional operations are characterized by having extensive mandates and encompass numerous complex assignments, e.g. security sector reform (SSR), support to peace and reconciliation processes, creation of state institutions and conduct of security operations. In order to execute these different tasks a mix of civil, military and police capabilities, e.g.

development, diplomacy, humanitarian assistance and military units, need to work in parallel in the operations area. The concept of multifunctional operations is thus similar to other contemporary concepts like full-spectrum operations, stabilization operations, counter-insurgency campaigns (COIN) and multidimensional peacekeeping.[9] The most important characteristic of multifunctional operations is that they significantly differ from traditional military operations in that the military component is only one of several components that work simultaneously to achieve the comprehensive objective of stabilizing weak and fragile states.

**Monitoring and evaluation (M&E)**

Monitoring and evaluation is a concept that primarily has been used within the civilian sector, notably within the aid community and in humanitarian assistance. For a long time, and even today, there is no consensus on a definition of the concept and what it entails. A harmonization of terminology has occurred, at least with regard to conflict prevention and peacekeeping operations, where the Organization for Economic Cooperation & Development/Development Assistance Committee (OECD/DAC) has taken the lead. OECD/DAC has broadened the M&E-field by introducing criteria that aim to make M&E more applicable to conflict environments and go beyond measurement of short-term effect. These criteria are:

- **Relevance**: the extent to which the intervention relate in a meaningful way to current, key driving factors of the conflict
- **Efficiency**: the extent to activities are/where cost efficient and contribute to peace
- **Impact:** refers to what has happened as a result of the conflict prevention and peace-building activity with regard to positive, negative, direct, indirect, intended and unintended long-term effects
- **Effectiveness**: the extent to which objectives have been achieved.
- **Sustainability**: refers to whether benefits will be maintained after external support has ended.

- **Coherence**: refers to how an activity relate to other policy instruments (trade, migration, diplomacy, military) with regard to whether different efforts are undermining each other.[10]

According to OECD/DAC these criteria are crucial to evaluations of conflict prevention and peace-building efforts in order to enable more effective policies and programmes.[11]

Based on OECD/DAC's terminology, monitoring is defined as:

> A continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing development intervention with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds.[12]

Monitoring is basically a review of used resources and results of executed tasks. It usually centres on looking at quantitative indicators, e.g. the number of books delivered to a school.

Evaluation is defined by OECD/DAC as:

> The systematic and objective assessment of an on-going or completed project, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, development efficiency, effectiveness, impact and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons learned into the decision–making process of both recipients and donors. Evaluation also refers to the process of determining the worth or significance of an activity, policy or program. An assessment, as systematic and objective as possible, of a planned, on-going, or completed development intervention.[13]

The main difference between monitoring and evaluation is that the latter is more encompassing compared to the former. Monitoring is connected

to plans and expected effects, i.e. efficiency and to some extent, effectiveness, whereas evaluations also look at the relevance, impact, sustainability and coherence of those plans.

**Assessment**

Evaluations within military organizations have traditionally focused on output analyses, threat assessments and battle damage assessments (BDAs). Lessons-learned (LL) and validation of units have also constituted a key part of the military evaluation process. To signify the change that has occurred within the military sphere the past decade the term *assessment* is predominantly being used, notably within NATO. In NATO's proposed new operational planning directive, COPD, assessment is defined as:

> The activity that enables the measurement of progress and results of operations in a military context, and the subsequent development of conclusions and recommendations that support decision making.[14]

To further specify the assessment concept, NATO has introduced two additional concepts, *campaign assessment* and *operational assessment*. Campaign assessment is basically *"the continuous monitoring and evaluation of all effects and objectives specified in the operational level military plan (campaign)"*.[15] It is a continuous process that aims to overlook the entire military operation and should cover assumptions and theories of change in operational plans as well as outcomes and changes in operational conditions.[16] In COPD operational assessment is defined as:

> A short to mid-term review of decisive points/decisive conditions leading towards effects along particular lines of operation, and the assessment of any special events or situations that may arise outside of the standing military plan.[17]

Operational assessments have a supporting role to campaign assessments and serve to validate on-going operations, feed the Commander's decision cycle and recommend modifications to plans through fragmentary orders (FRAGOs).

The military assessment concept is similar in many ways to the civilian M&E-concept. A crucial difference is that the assessment concept does not cover criteria like relevance, impact, effectiveness, sustainability and coherence. This makes it less apt for promoting evaluations in theatre of how military activities, stated objectives and achieved effects influence stability and security in war-torn societies such as Afghanistan.

**In this article the concept of M&E is used when referring to OECD/DAC's glossary whereas the concept of assessment is used when referring to NATO's terminology in COPD and evaluations of military operations.**

## Effect and result

Effect and result are two concepts that are of key importance when discussing M&E and assessment, and are commonly used to define what these processes are about. At the same time, the concepts are not self-explanatory and are used differently by different actors; hence they need clarification. According to Oxford Advanced Learner's dictionary, effect is *"a change that somebody/something causes in somebody/something else; a result"*, and result is *"a thing that is caused or produced because of something else"*.[18] Clearly, the essence of the concepts is identical and both are used to denote the relationship between a cause, i.e. an independent variable, and a consequence, i.e. a dependent variable. In this article the terms effect and result will be used interchangeably.

## Key Challenges to military organizations regarding M&E

The below compilation of military organizations' challenges to M&E is categorized into one external perspective and one internal. The external perspective is structural and covers challenges that are related to operational environment and political circumstances. Many of these challenges are general and apply both to civil and military organizations deployed in conflict zones. The internal perspective is actor-oriented and covers challenges connected to the military organizational characteristics, e.g. doctrine, military tradition and culture, methods and operational perspectives. Even though the configuration of military organizations differs between countries, regiments and units, not least with regard to tradition and culture, they arguably share certain general characteristics

that supersede the differences. The section on internal challenges below analyses how these characteristics obstruct implementation of military M&E.

There are no water-proof bullets between the two perspectives since several of the challenges are interconnected. For example, the complex and non-linear character of conflicts (external perspective) together with military organizations' preoccupation with measuring planned activities and effects rather than actual results (internal perspective) hampers fruitful M&E. Likewise, the intangibility of objectives in multifunctional operations (external perspective) combined with poor documentation of operational designs and plans (internal perspective) directly obstructs assessment of executed tasks and specific effects, for instance, increased security in a village. Still, the categorization is relevant since it enables a structured analysis of existing challenges and how they interact, which is crucial to be able to manage them.

## External challenges

### Intangible objectives

A key characteristic of multifunctional operations is that they encompass wide and abstract objectives, such as the creation of sustainable and stable states, and ultimately aim towards structural transformation of conflict-ridden countries. These objectives are very complex and essentially wider than traditional military objectives which primarily have included winning battles, monitoring cease-fires and defeating enemies. This makes it difficult for commanders at the operational and tactical level to deconstruct and create objectives that correspond to the overall end-state, which in turn generates ambiguities regarding interim targets and operational purposes.[19] Consequently, it is difficult for military personnel to know what to monitor and evaluate; the link between activity and outcome becomes invisible. In Afghanistan one of the International Security Assistance Force's (ISAF) key objectives is to provide security.[20] In many cases this objective has not been operationalized into tactical objectives with explicit metrics and indicators which, in turn, make it difficult to answer questions like: how did we provide security? To what extent? For whom? Assessments of security developments do exist in theatres like Afghanistan and Iraq. The metrics used in these assessments,

e.g. number of improvised explosive device-attacks, hostile encounters (troops in contact – TIC) and civilian causality rates, are seldom connected to stated objectives and conducted operations. Certainly these kinds of metrics are important to look at, not least when it comes to force protection, but they are insufficient to assess how (if) kinetic operations generate security for the local population. The problem is that military units risk operating without knowing what effects they achieve which in turn can lead to unwanted and/or unexpected results.

**Complex and rapidly changing operational environment**

One of the most important reasons to why M&E is such a difficult task is the complex and rapidly changing character of the operational environment, where numerous factors affect each other interactively, often in a non-linear fashion.[21] The asymmetric character of these environments further complicates things, sometimes making it difficult even to work out who to fight and who to protect. One key challenge is that these operational environments only follow a limited linear logic within certain unknown intervals. This makes it difficult, and associated with great uncertainty, to predict and understand in hindsight developments in an area of operations. With respect to cause and effect it makes it impossible to look at such relationships as isolated and non-contextual phenomena. For M&E this means that the value of using linear methods to evaluate operations becomes highly questionable.[22] According to Kessler et al. there is an on-going conceptual shift within the military community from using deterministic causal assumptions towards using contributing factor-assumptions.[23] Even though this does not solve the core problem of identifying cause and effect, it is a positive development with regard to the cognitive process within military organizations of applying less deterministic assumptions to explain complex operational environments.

Apart from the above mentioned methodological issue, complex and rapidly changing operational environments influence M&E in three crucial ways. First, it quickly renders assumptions and temporal frames given in operation plans (OPLANs) invalid since circumstances continuously change. This forces military organizations to analyze and plan for the short-term and, as a result, focus is often directed at monitoring what they do rather than evaluating effects.[24] In a complex operational environment

both the environment itself, i.e. the dependent variable, and military units' operations, i.e. independent variables, change value interactively over time. Second, it quickly renders indicators to measure effects obsolete and makes it difficult to establish baselines.[25] Third, it complicates collection of reliable data. Some geographical areas and certain actors may be impossible to reach, thereby making it difficult to get a balanced and representative resolution of the environment. In addition, objective information rarely exist in complex conflict environments where stakeholders often have their own agenda and seek to influence other actors by disseminating certain information. Often the most important information is the most difficult to collect, e.g. a rebel movement's intentions.[26] In a study of ISAF Joint Command (IJC), Regional Command Southwest (RC SW) and PRT Helmand in Afghanistan, Downes-Martin found that this severely had impeded on the assessment process. He found that information perceived to be impossible to collect was set aside by assessment personnel without any proper risk analysis, e.g. that critical metrics could be missed in the process.[27] This clearly jeopardizes the accuracy of assessments.

Rather than having too little information, the problem for assessment personnel is often the opposite. In complex and rapidly changing environments there tend to be an overload of information which is often contradictory, inconsistent and incomplete. The number of assessment metrics tends to increase as an operation proceeds and new metrics are added without others being removed, out of fear for missing something critical.[28] In Afghanistan the strategic and operational command, e.g. IJC and some RCs, have issued fragmentary orders (FRAGOs) on the collection of large numbers of numeric metrics, in one case on approximately 240 metrics. It is beyond the capacity of most units in the field to collect on such large numbers of metrics and produce a credible product. There is also a risk that assessment staff becomes preoccupied with collection and structuring of data at the expense of analytical work and reflection.

## The politicization of success and progress

Evaluation of success and progress is highly dependent on how it is defined. The international operation in Afghanistan is often accused of failing to reach its goals, even though 7.2 million children were enrolled in

schools in 2011 compared to 1 million in 2001.[29] The question is: does this signify success for the operation as such? There are basically three issues that influence how success and progress is perceived in multifunctional operations. First, progress and success is largely defined in the eyes of the beholder and is viewed differently depending on factors such as interests, identity, position and political agenda of different stakeholders. Second, multifunctional operations are to a large extent judged based on expectations that exist at the international, national and local level, and how perceived effects meet these expectations.[30] Third, actors involved in multifunctional operations often work under heavy pressure from both international and local stakeholders to produce successful results. Consequently, there is always a risk of politicizing evaluations which could inflict on results and conclusions; instead of assessing actual operational progress they might focus on finding results that can confirm political expectations for progress. The transition process in Afghanistan is one example of this. In this process the time-line for transfer of responsibility for security matters, from ISAF to the Afghan government, has largely been determined by political considerations than de facto developments on the ground.

Clearly, the importance and impact of an evaluation is a political issue just as much as a methodological/technical issue. This is problematic both for the operations and for the prospects of measuring progress or failure as objectively as possible.[31]

## Parallel phases and the Three-block war

Multifunctional operations are often conducted in several simultaneous phases, meaning that civilian and military tasks are executed in parallel rather than in sequence. The concept of the *Three-block war* comes to mind in this regard. Developed by US Marine General, Charles Krulak, in the 1990s it refers to that the character of an operation can change quickly between closely located geographical areas. Modern military units may be required to conduct full-scale military action, peacekeeping operations and humanitarian assistance within the space of three adjacent city blocks.[32] Since military units are only one of several actors that operate in a multifunctional setting there is an additional point to Krulak's concept, namely that achieved effects in one phase often influence preconditions for progress in other phases. For example, a seemingly successful military

operation might in fact increase support and recruitment for anti-governmental elements and thereby hamper an on-going reintegration process or development effort. For military organizations this creates significant challenges since objectives and results cannot be viewed in isolation but must be assessed in relation to other objectives and results that go beyond military end-states. This need for coherence makes it even more difficult to trace cause and effect-relationships since the causal link become very far-stretched. The causal connection between the capacity of local defence forces, for example, and increased security and good governance in a district is far from obvious and explicit.

## Internal challenges

### Military tradition, culture and doctrine

Military organizations are highly institutionalized. A key characteristic of institutionalized organizations is that traditions and cultures often are persistent to change since this is what essentially defines them. If proposed organizational changes collide with such fundaments they are less likely to take place.[33] For example, in a study of the American Marine Corps, Terry Terriff found that large changes that clashed with the self-image of what it meant to be a true marine did not have an impact on the organization.[34] Forming a strong culture of commonness and conformity, e.g. for values and in training, has its reasons, namely to manage what Carl von Clausewitz called 'the frictions of war' since it reduces the need for communication and the risk for misunderstandings.[35] As we shall see below this also leads to flaws in the M&E-process.

Military organizations tend to be process-oriented rather than outcome-oriented. Processes are designed to avoid errors and focus on optimizing the execution of tasks by controlling that these processes work the best way possible. In a life-and-death business like the military this is logical and necessary, but at the same time affects M&E negatively since assessments tend to focus on executed tasks, i.e. how efficiently a plan was executed, rather than outcomes, i.e. achieved effects.[36] Objectives and effects tend to be accounted for in terms of what has to been done at a certain point in time rather than what effects and changes in the operational environment that ought to be achieved. This has been a common problem in Afghanistan. For example, in a study of the Swedish

PRT in Mazar-e Sharif, Harriman & Lackenbauer found that evaluations centered on output-metrics like whether contact was made with a village elder, whether a search operation was executed or whether books had been delivered to a specific school.[37] This obviously put the potential for operational progress at risk since tasks can be executed in ways that undermine expected results or entirely erases them, and, more important, that military units are unaware of it.

A key part of the problem is that military personnel to a large extent are trained to be efficient and task-oriented, and that assessment personnel are shaped and trained in the same way as the officers that design operational plans.[38] This discourages critical thinking and instead increases the risk for group-thinking. Another key part of the problem is that military organizations tend to make reductionist interpretations of complex operational situations and presume causality. This often leads to simplifications that are too general to allow for any wealth of details. It also leads to assumptions and arguments that are based on generalizing abstractions rather than specific data that describe the situation at hand. By simplifying and generalizing complex matters, nuance and detail is lost in the process.[39] The limits of reductionism was emphasized by Clausewitz already 200 years ago when he stated that war is an indivisible unit where each part have no value on its own and must be related to the whole.[40] Furthermore, military organizations tend to perceive decision-making as an objective and rational choice of finding the optimal solution. This rationality is based on the premise that every alternative can be identified and compared, and that there is an objective and unbiased solution to complex problems.[41] It makes military organizations ill-equipped to manage the complex situations and problems that they encounter in multifunctional operations.

Military tradition and culture is thus paradoxical to doctrine in that doctrine emphasizes the need for innovation, creativity and adaption whereas behaviour often is characterized by process-orientation, reductionism and strict norms.[42] Even though many military organizations are aware of this problem it still lacks a sustainable solution. At the moment, it is reducing chances for success in operations that are conducted in complex and rapidly changing multifunctional settings.

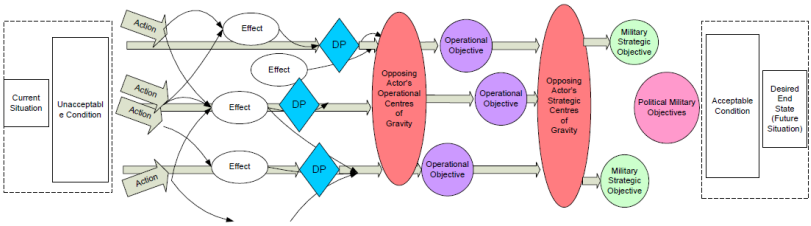
**Poor documentation of theories and assumptions in operational designs and plans**

Assessment of effects within military organizations primarily have two main purposes, to establish whether planned objectives are achieved and to validate the operational design, i.e. to confirm that planned activities lead to intended results.[43] This presumes that assumptions, theories and logics that the plan builds on are documented in a systematic way. Kessler et al. claim that logical theories on how and why planned activities are assumed to generate certain effects often are not explicitly documented in operational designs and OPLANs.[44] An illustrative example can be found in NATO's COPD. In the operations design section of the directive it is described how an activity generates a certain effect, and leads to that a stated objective is achieved (see figure 1).[45] However, what is lacking in this regard are explicit descriptions of the relationships between the different stages, i.e. in what way an activity leads to an effect and how an effect is related to a decisive point and eventually an operational objective.[46] The problem is that if operational designs and OPLANs only describe activities, effects and objectives and not the underlying logic, the so-called *theory of change*, it becomes difficult to say anything about changes in the operational environment and whether this can be attributed to military activities. Without a comprehensive theoretical model that both covers theories of change and the assumptions about causes to instability, i.e. theories of conflict, there is nothing that connects overall operational objectives to the collection of data. As a result, designs and plans cannot be validated.

Military organizations often do not differentiate between theories of change and activity models. While the former encompass the underlying theory for how factors and phenomena are assumed to influence each other in the operational environment (see above), the latter describes planned activities and expected effects and consequences of these activities.[47] Military organizations sometimes also have difficulties in separating between activity models and evaluation models. For instance, in a study of the assessment process during the large international multifunctional exercise Viking 11, Bandstein found that objectives were not separated from metrics. According to Bandstein, assessment personnel sometimes found it hard to distinguish between what was supposed to be achieved and metrics used to measure achievement of

objectives. Several of the objectives were also presented as activities to be performed and did not say anything about achieved effects.[48] This lack of accuracy combined with lack of explicit theoretical models make it difficult for commanders to ensure that perceptions of operational problems and preferred solutions are shared by everybody in the staff[49], which poses a serious problem to comprehensive and consistent M&E.

**Figure 1. Operations environment displayed in NATO COPD**[50]




## Internal battle rhythm

The internal battle rhythm within the military staff in theatre is often associated with substantial time pressure with regard to the numerous daily tasks that are to be executed, notably preparing briefings to the commander. According to Kessler et al. this battle rhythm tends to drive staff officers to focus on internal matters rather than developments in the external environment.[51] Furthermore, experiences from the Swedish PRT in Mazar-e Sharif in Afghanistan have showed that the continuous demand for assessment reporting from the upper ISAF-command levels forced the tactical level to focus on immediate effects rather long-term impacts.[52] With this kind of internal battle rhythm that precludes an external focus and discourages a long-term time frame at the tactical level, it becomes impossible to evaluate results and effects as well as the relevance and sustainability of them. In the end this will directly damage the higher echelons' ability to acquire a holistic view of an on-going operation.

**Excessive confidence in quantitative methods and junk arithmetic**

*"Not everything that can be counted counts, and not everything that counts can be counted"*.[53] In many ways Albert Einstein summarizes the core problem connected to what military organizations often view as useful evaluation data. According to Kessler et al. military organizations largely use quantitative data and numerical methods in assessments. Quantitative data are generally perceived as objective and true whereas qualitative data are perceived as arbitrary and fuzzy.[54] This perception is flawed since selection of quantitative data and the criteria for what to report on often is highly subjective. For example, in Afghanistan American units have used different criteria for what to report as discovery of IED-materiel[ii]. In one area cell phones were viewed as IED-materiel since that kind of equipment previously had been used to detonate IEDs whereas in a different area only discovery of explosives were reported. As a result, the IED-threat in the former sector was significantly higher than in the latter even though in reality no such difference existed.[55]

Even though mathematical estimations and calculations have become increasingly accessible to military organizations with the growth of user-friendly software, it has not become easier to perform those analyzes correctly. Often military staff officers lack knowledge of problems and limitations associated with numerical methods, and one example of this is when staff personnel make mean value-calculations on ordinal values. Ordinal values occur inter alia when a group of people are asked to answer how they perceive a certain matter, e.g. the level of security in an area, by stating whether it is 'very good',' neither good nor bad' or 'very bad'. If half the group answer very good and the other half very bad, it is not legitimate to claim that the group as a whole perceive it as neither good nor bad.[56] This kind of junk arithmetic is mathematically incorrect but, according to Downes-Martin, has been a recurrent theme in Afghanistan, for instance, within RC S's assessment process.[57]

Calculating the margin of error is a precondition when conducting statistical analyses. Analysts and assessment personnel should at all times aim to prove statistical significance when analyzing changes and trends. This means that observed changes ought to have an established margin of

[ii] Improvised Explosive Device.

error in order to make sure that such changes are not due to fluctuations deriving from the method used.[58] Weighting and aggregation of quantitative data can be appealing at times since it enables staff officers to provide seemingly unambiguous and credible results. In practice it is quite the opposite since the process is often quasi-mathematical. Without knowledge on how to apply such statistical tools, results and conclusions risk being completely erroneous.[59] In the assessment processes that Downes-Martin observed in Afghanistan the margin of error was often ignored. Instead ISAF-commands made conclusions about trends based on small changes of data that lacked statistical justification.[60] Likewise, in a study of assessment processes in military operations, Nilsson made similar findings.[61] A key problem in this regard is that military organizations often are short on personnel with expert knowledge in statistical and scientific methods. Educations within the relevant field do exist, for example within the US Armed Forces, but experience and comprehensive knowledge is still lacking.[62] As a result, military organizations tend to be ill-equipped to assess operations using quantitative methods.

## Overly simplistic color-coding

Senior commanders often have limited time and must be on top of many things simultaneously. To manage this time pressure the most common approach in theatre is to provide assessment conclusions to commanders and staff in the form of color-coded maps.[63] However, despite its graphically appealing design color-coding entails serious flaws that threatens the ability to correctly perceive and understand developments in an operations area.

The fundamental problem is that color-coded maps represent an average, not a summary, of a large number of underlying factors.[64] This means that mean values are calculated for the colors where, for instance, two red lights and two green ones can result in a yellow light (see figure 2). In an assessment brief, presented to commanders and staff, this could give the impression that popular support for an insurgency in a region is neutral when in fact it is strong in one area and non-existent in another. Clearly, such averaging of colors hides information and risk offering a simplistic and misleading representation of the battle space. According to Downes-Martin,

> It is not only possible, but likely, that an average (i.e. colour on the color-coded map) stay the same as some factors improve and others degrade. The colour code tells us nothing useful about this effect, and so one must give narrative explanations about the improving and degrading factors. Since this is often done anyway by smart staff, the colour coded map becomes pointless at best and misleading at worst.[65]

Color-coded maps entirely work against the need in multifunctional operations of in-depth knowledge of operational conditions and the local population, which is particularly important in COIN-campaigns. Still, color-coding has been used in critical processes in Afghanistan such as the transition process, where IJC have used it to assess Afghan districts' readiness for transition to full governmental control (see figure 3).

**Figure 2. Effects of averaging color codes, an example**[66]

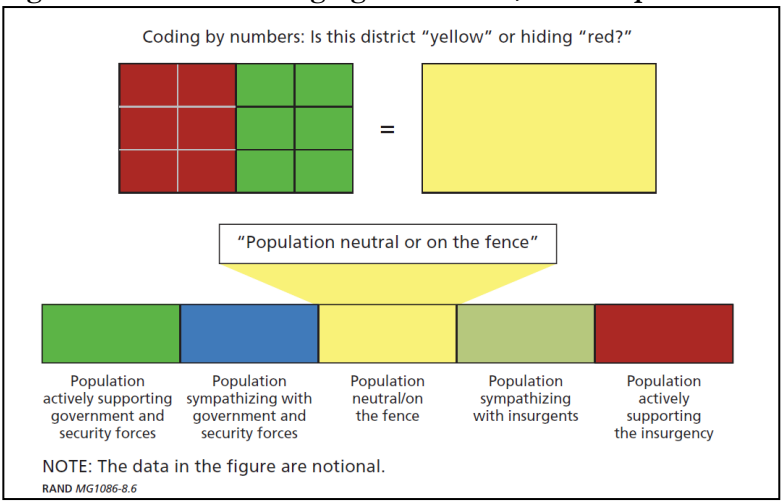
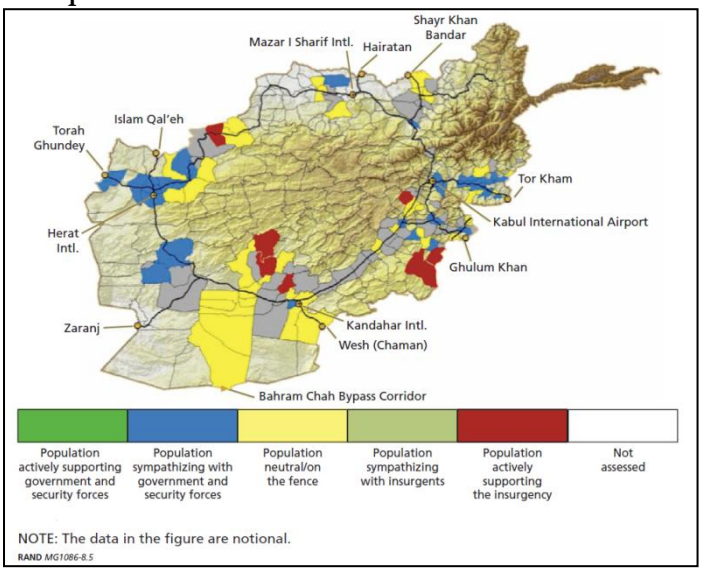


**Figure 3. ISAF Joint Command (IJC) District Assessment, an example**[67]




## Conclusions

As this article shows, the challenges for military organizations with regard to monitoring and evaluation (M&E) are extensive. A large part of these challenges are internal to military organizations and derive from task-oriented evaluations, reductionist interpretations of the operational environment, poor documentation of operational designs and use of junk arithmetic. Especially the use of simplistic color-coding and quasi-numerical calculations to assess trends is problematic. At best it gives commanders a crude image of the operational environment and at worst, a flawed one which could lead to erroneous conclusions and skewed decision-making. In many ways military practice is paradoxical to doctrine in that doctrine emphasizes the need for innovation, creativity and adaption whereas behavior often is characterized by process-orientation, simplification and strict norms. This has made military organizations ill-equipped to conduct M&E in multifunctional operations.

A number of external challenges further exacerbate these internal challenges. First, there is the complex and rapidly changing character of

operational environments which makes causal analysis and collection of reliable data very difficult, and forces military organizations to analyze and plan for the short-term. As a result, emphasis often is put on monitoring executed tasks rather than evaluating achieved effects. Second, there is the intangible character of objectives in multifunctional operations which are essentially wider than traditional military objectives. Experiences from Afghanistan have shown that these objectives often are difficult to operationalize at the lower levels which, in turn, makes it difficult to establish clear-cut links between objectives, tasks and operations. Third, there is the parallel character of different operational phases in multifunctional operations which makes means that objectives and results cannot be viewed in isolation. Rather they must be viewed in relation to other objectives and results that go beyond military end-states. This need for coherence makes causal analysis even more difficult since the causal link can become very far-stretched. Fourth, there is the issue of politicized evaluations. Actors involved in multifunctional operations often work under heavy pressure from both international and local stakeholders to produce successful results. Consequently, there is a risk that evaluations will work to confirm political expectations for progress. This undermines the objectivity of M&E and constitutes an immediate threat to measurement of de facto progress, or failure, on the ground.

Many military organizations are aware of existing challenges and changes are under way to manage them, especially at the concept and doctrine level. However, the road to successful M&E-implementation in theatre is still long and bumpy. Many existing doctrines and concepts are not addressing the key challenge of how to measure long-term effects which is crucial when assessing the impact and sustainability of operations. This constitutes a serious flaw to ongoing M&E-developments within military organizations and must be considered in the future work within this field.

While the space for improvement is substantial, this article has illuminated some of the most daunting challenges that exist within military M&E. It serves as a fruitful starting point for continued research on how to address these challenges to enable necessary changes within military organizations.

[1] Schumacher J. (2007). "What to measure in peace support operations", *The Pearson Papers*, 10 (1), 45.

[2] Meharg S.J. (2009a). *Measuring what matters in peace operations and crisis management*, Kingston: School of Policy Studies, Queen's University, 1.

[3] Bandstein S. (2011a). *Uppföljning och utvärdering av insatser inom Försvarsmakten – hur ser det ut idag och vad saknas?* [Monitoring and evaluation of operations within the Swedish Armed Forces], Stockholm: Swedish Defence Research Agency, 8.

[4] NATO (2010). *Comprehensive Operations Planning Directive*, COPD-Trial version, 25 December 2010, Mons: Supreme Headquarters Allied Power Europe; NATO (2011). Operations Assessment Handbook Interim Version 1.0, Mons: NATO Allied Commands Operations.

[5] Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups; Harriman D. & Lackenbauer H. (2010). *Assessment of progress in multifunctional and multinational operations: Swedish experiences from the operational and tactical level in Afghanistan*, Stockholm: Swedish Defence Research Agency; Penh B., El-Zoghbi M. & Stevens P. (2008). *Note from Afghanistan: Civil-Military cooperation in microenterprise development*, United States Agency for International Development, 4.

[6] Bandstein S. (2011a). *Uppföljning och utvärdering av insatser inom Försvarsmakten – hur ser det ut idag och vad saknas?* [Monitoring and evaluation of operations within the Swedish Armed Forces], Stockholm: Swedish Defence Research Agency; Harriman D. (2011). *Uppföljning och utvärdering i multifunktionella insatser – analys av militära organisationers problem och utmaningar samt förslag på civil-militära lösningar* [Monitoring and evaluation in multifunctional operations – analysis of military organizations' problems and challenges and suggestions for civil-military solutions], Stockholm: Swedish Defence Research Agency; Nilsson P. (2011) *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency.

[7] E.g. Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups; Harriman D. & Lackenbauer H. (2010). *Assessment of progress in multifunctional and multinational operations: Swedish experiences from the operational and tactical level in Afghanistan*, Stockholm: Swedish Defence Research Agency; Zyck S.A. (2011). *Measuring the development impact of Provincial Reconstruction Teams*, Monthly report on Afghanistan, June 2011, Norfolk: Civil-Military Fusion Centre.

[8] E.g. de Carvalho B. & Aune I.J. (2010). *Assessing complex peace operations – some considerations on methodology and procedure*, NUPI Working Paper 782, Multinational Experiment 6, Oslo : Norwegian Institute of International Affairs; Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6.

[9] Chiarelli P.W & Michaelis P.R (2005). "Wining the peace – the requirement for full-spectrum operations", *Military Review*, July-August 2005; Stabilisation Unit (2008). *The UK approach to stabilization: Stabilisation Unit guidance notes*, 13-15; United Nations Department of peacekeeping (2003). *Handbook on the United Nations multidimensional peacekeeping operations*, New York: United Nations.

[10] OECD/DAC (2008). *Evaluating conflict prevention and peacebuilding activities*, OECD Factsheet 2008, 2.
[11] Ibid.
[12] Swedish Foreign Ministry & OECD/DAC (2007). *Glossary of key terms in evaluation and results based management*, 22.
[13] Ibid. 17.
[14] NATO (2010). *Comprehensive Operations Planning Directive*, COPD-Trial version, 25 December 2010, Mons: Supreme Headquarters Allied Power Europe, 5-1.
[15] Ibid. 5-2.
[16] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 15.
[17] NATO (2010). *Comprehensive Operations Planning Directive*, COPD-Trial version, 25 December 2010, Mons: Supreme Headquarters Allied Power Europe, 5-2.
[18] Oxford Advanced Learner's Dictionary (2012). http://oald8.oxfordlearnersdictionaries.com/ (Retreived 10 October 2012).
[19] Lindoff J. & Hull C. (2010). *Hur bör ledning bedrivas i multifunktionella insatser?* [How to conduct command and control in multifunctional operations?], FOI Memo 3198, Stockholm: Swedish Defence Research Agency, 16.
[20] M. & Berger J-F. (2010). *Tackling security challenges - an overview of ISAF's mission*, presentation at Afghanistan reconstruction summit, 20-21 January 2010, Istanbul, Turkey.
[21] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 31.
[22] Ibid. 31-32.
[23] Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6.
[24] Harriman D. & Lackenbauer H. (2010). *Assessment of progress in multifunctional and multinational operations: Swedish experiences from the operational and tactical level in Afghanistan*, Stockholm: Swedish Defence Research Agency, 41-42; Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 16.

[25] de Carvalho B. & Aune I.J. (2010). *Assessing complex peace operations – some considerations on methodology and procedure*, NUPI Working Paper 782, Multinational Experiment 6, Oslo : Norwegian Institute of International Affairs, 21; Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 16; Nilsson C. & Derblom M. (2009). *Uppföljning och utvärdering i multifunktionall insatser* [Monitoring and evaluation in multifunctional operations], FOI Memo 2855, Stockholm: Swedish Defence Research Agency, 7.

[26] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 39.

[27] Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups, 3.

[28] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 39.

[29] World Bank (2012). *Afghanistan Country Overview 2012*, www.worldbank.org/af (retrieved 2012-08-27).

[30] Meharg S.J. (2009b). *Measuring effectiveness in complex operations: what is good enough?* October 2009, Canadian Defence & Foreign Affairs Institute, 8-10.

[31] See Nilsson C. & Derblom M. (2009). *Uppföljning och utvärdering i multifunktionall insatser* [Monitoring and evaluation in multifunctional operations], FOI Memo 2855, Stockholm: Swedish Defence Research Agency, 7, for a similar point.

[32] Krulak, C. C. (1999). "The Strategic Corporal: Leadership in the three block war", *Marines Magazine.* Arlington, VA: United States Marine Corps.

[33] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 27.

[34] Terriff T. (2006). "Warriors and Innovators: Military Change and Organizational Culture in the US Marine Corps", *Defence Studies*, 6(2), 215-247.

[35] von Clausewitz C. (1997). *On War*, (J. J. Graham, Trans.). (Abridged version.).

Hertfordshire: Cumberland House (Original work published 1831); Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 28.

[36] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 27.

[37] Harriman D. & Lackenbauer H. (2010). *Assessment of progress in multifunctional and multinational operations: Swedish experiences from the operational and tactical level in Afghanistan*, Stockholm: Swedish Defence Research Agency, 37.
[38] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 29.
[39] Ibid. 37.
[40] Carl von Clausewitz (1997). *On War*, (J. J. Graham, Trans.). (Abridged version). Hertfordshire: Cumberland House (Original work published 1831).
[41] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 29.
[42] Ibid.
[43] Ibid. 33.
[44] Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 10.
[45] NATO (2010). *Comprehensive Operations Planning Directive*, COPD-Trial version, 25 December 2010, Mons: Supreme Headquarters Allied Power Europe, A-17.
[46] See Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 33-34, for a similar point.
[47] Ibid. 36.
[48] Bandstein S. (2011b). *The assessment process: experiences from Viking 2011*, Stockholm/Enköping: Swedish Defence Research Agency/ Swedish Armed Forces Joint Concept Development and Experimentation Centre.
[49] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 36.
[50] NATO (2010). *Comprehensive Operations Planning Directive*, COPD-Trial version, 25 December 2010, Mons: Supreme Headquarters Allied Power Europe, A-17.
[51] Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 16.

[52] Harriman D. & Lackenbauer H. (2010). *Assessment of progress in multifunctional and multinational operations: Swedish experiences from the operational and tactical level in Afghanistan*, Stockholm: Swedish Defence Research Agency, 35.
[53] Albert Einstein quoted in Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 19.
[54] Kessler G., Jones K. & Notel G. (2009). *Assessing progress in military operations: recommendations for improvement*, Draft version 0.5, Multinational Experiment 6, 18-19.
[55] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 38.
[56] Ibid. 30.
[57] Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups, 4.
[58] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 40.
[59] Ibid. 30-31;38.

[60] Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups, 4.
[61] Nilsson P. (2011). *Värdering och bedömning av militära insatser och effekter: begreppsanalys och problematisering* [Assessment of military operations and effects], Stockholm: Swedish Defence Research Agency, 40.
[62] Ibid. 31.
[63] Downes-Martin S. (2010). *Assessments process for RC (SW)*, Newport, RI: US Naval War College, Center for Irregular Warfare and Armed Groups, 4-5.
[64] Ibid. 5.
[65] Ibid.
[66] Connable B. (2012). *Embracing the fog of war – assessment and metrics in counterinsurgency*, Santa Monica, Arlington & Pittsburgh: Rand Corporation, 202.
[67] Ibid. 201.

# The Concept and Framework of Pre-emptive Strategic Development Operations

*By Rene Toomse*[*]

## Introduction

The manner in which today's adversaries wage wars has changed in such a way that Western nations, with their technically superior armies, find it difficult to win wars by ways and means that have worked before. Warfighting against modern insurgents has turned out to be exhausting and endless. While counterinsurgents normally have far better technology, training and weapons than insurgents in on-going conflicts they cannot win quickly and decisively. Many strategies so far have proven impossible to achieve.[1] The "quick in – find – fix – defeat" mindset should, according to current doctrines and policies,[2] work with all the traditional principles of war. Yet still the enemy is not willing to surrender. Something is different in today's battlefield, perhaps even in the nature of war itself.

The protracted conflicts in Afghanistan and Iraq have dramatically changed the world and its understanding about conflicts. Slowly, but steadily, Western nations are arriving at the conclusion that there is no purely military solution. Yet there are still many complexities to overcome. Additionally, even if the West were to one day conclude the current campaigns, these are unlikely to be the last wars of this type that the West will face.

However, democratic societies need to work hard to prevent wars, as that has been set as one of priorities for NATO.[3] Violent conflict has become discordant to current Western culture. Still, there is a constant need to conduct Crisis Response Operations[4] or be ready to fulfil the obligation of NATO Treaty Article 5[5]. Western nations still need to gather large armies under coalitions and deploy them into crisis areas with the intent to re-establish peace. It has worked most of the time in the past; somehow it does not work so simply anymore. Today's adversary, usually a non-state actor, is somehow stronger than ever. Despite the lack of equipment and training, irregular enemies cause superior armies to bleed and wage long wars.

[*] Rene Toomse is a Reserve Captain in the Estonian Army and is CEO of Alphard Maritime Security in Tallinn Estonia.

NATO officially recognizes that there is no purely military solution in armed conflict.[6] Indeed, NATO notes that there are other solutions than the military means to prevent a clash. In the strategic picture the main areas or functions of a state are diplomatic, informational, military and economic (DIME). In the more elaborated approach, the political, economic, military, informational and infrastructural (PEMSII) domains.[7] Those functions all are interconnected and disturbances in one can result the collapse of the whole system. Few conflicts start only with military issues. Conflicts are often caused economic or other man made problems that lead to collapse of a secure state system.[8]

To develop informational, diplomatic and economic functions demands much more civilian knowledge than regular armed forces usually possess. An army is probably not the best tool to use for fixing a broken economy. However, Westerners tend to send their soldiers to failed states in the hope they can stabilize a country in turmoil so the civilian experts can make the ground safe by other means than military ones. Yet this paradigm has changed. Even the Comprehensive Approach, if it keeps following Fukuyama's model,[9] will probably not be effective.

The intent of this study is to look into the context of current and likely future conflicts. Some key questions are: why are some insurgencies so successful today? Could one somehow pre-empt those situations? If yes, then how and by what means should this be done? Last but not least, what can small states with fewer resources do to make an effective contribution to Western security? What and how could a nation such as the Republic of Estonia contribute?

NATO adopted a new strategic concept in Lisbon November 2010.[10] Along the emphasis on collective defence in the case of an attack there is also an emphasis on the prevention of conflicts in the world.

*"The best way to manage conflicts is to prevent them from happening. NATO will continually monitor and analyse the international environment to anticipate crises and, where appropriate, take active steps to prevent them from becoming larger conflicts"* states the fresh *NATO Strategic Concept for the Defence and Security*.[11]

Most Western nations mean to be actively engaged in the prevention of conflicts. Yet, despite this shared imperative, there is no common understanding of how conflict prevention should take place. Thereby, while the NATO statement acts as a policy and mandate, there should be practical vision for a concept of operations, organization and methods to

meet the need. This article will propose a model and a pre-emptive approach that could be used as a basis for discussion. It is called the Pre-emptive Strategic Development approach. In addition to presenting the theoretical concept, this study will outline a possible organization and actors within it. The intention is to create an approach and organization that can be effective in the prevention of future conflicts.

The pre-emption of most modern conflicts requires, in addition to sophisticated military skills, civilian advice and expertise that addresses the problems within social systems. This expertise, if applied correctly, could bring the desired effects in the target area, reduce the tension and thereby prevent the conflict from occurring at all.[12] This is not likely to be achieved by the military alone; it needs extensive cooperation with civilian subject matter experts from day one on the ground and even before.

That approach is very extensive one, and is not possible for a small state on its own to cover the full range of all the fields of PEMSII that are needed to improve the social systems of failing countries. There are likely to be just a few specialized areas, such as power engineering, healthcare, information technology, and so on where a small state can focus its effort accordingly. These would usually be unique fields where the nation has strong capabilities. Thus, the strengths of a small state should be coordinated within the Alliance to fulfil the common strategy. This would be the essence of the Pre-emptive Strategic Development Operations (PSDO).

Small states, being small in their organization, can often be more flexible and creative in their ability to induce internal changes.[13] As long as the national strategists grasp the idea, they can make operations work in multiple ways: to mitigate future threats to the nation and the alliance, and to increase the political credit of their government in the international arena. This PSDO concept is not widely discussed in the current military literature.[14] In fact, I developed the concept from suitable counterinsurgency doctrines. However, since every situation is unique, PSDO does not offer a single solution that is wholly applicable under all conditions. PSDO has to be taken as a basic framework to be considered and revised according to situation and context.

This article will look at the evolution of modern warfare, the causes of recent conflicts, and the new challenges that form the basis for the theory of Pre-emptive Strategic Development Operations. Then it will develop the concept of how such operations might work in the future.

## Theory of Pre-emptive Strategic Development Operations

A war is commonly understood and legally defined as an armed conflict between states. However, today a state actor fighting non-state opponents has become the main form of warfare. It is often more difficult to succeed in this type of conflict than to overcome a state actor.[15] In almost all cases the state armed forces will have superiority over the non-state opponents in terms of "combat power": technology, weapons, techniques, training. Despite this, state armed forces often lose in the fight to establish stability.[16] How is this possible? When answering this question one must remember and recognize that the essence of a war is a violent struggle between two hostile, independent, and irreconcilable *human wills*, each trying to impose itself on the other.[17] In a war against an irregular, non-state enemy, local public support and their welfare can often count more than firepower.[18]

Human will is the primary factor in waging war and the will to fight is considered a strategic centre of gravity of a nation or entity at war - that is *the hub of all power and movement, on which everything depends*.[19] It is important to keep in mind that a human is the one who also changes the face of war and adapts to its conditions.

The US Marine Corps doctrine describes the three major forces in war: physical, mental and moral. The physical characteristics of war are generally easy to understand and measure. These include equipment capabilities, supplies, force ratios, and so on. Mental forces are the ability to grasp complex battlefield situations and to make effective estimates, and decisions. Moral forces are much more difficult to grasp and measure. One cannot easily weigh factors such as national and military resolve, conscience, emotion, fear, courage, leadership, or esprit. Yet these are primary drivers for other forces.[20] In short, moral force is decisive.[21] Even though the decisions to start, wage and end wars are made at a mental level, these are always driven by rational outcome of conclusions made by the actor in the conflict made under moral pressure.

Today we see often the widespread use of guerrilla tactics *with strategic impact* by a weaker side against a stronger opponent. Some theoreticians such as William S. Lind and Col. Thomas X. Hammes call this phenomenon *fourth generation* warfare, a type of conflict that has emerged from the second and third generations of warfare. The concept of generations of war is disputed by many academics but it has also found some acceptance in Western armed forces. The main argument of the

critics is that this kind of warfare is nothing new and that the four generations concept is unnecessary.[22]

U.S. Marine Col (ret.) Thomas X. Hammes, the author of *The Sling and the Stone: On War in the 21st Century*,[23] argues that, "strategically, fourth generation attempts to directly change the minds of enemy policy makers."[24] Lind argues that the changes in conflict noted by the fourth generation model centers on *who fights and what they fight for*. According to Lind, it is a mistake to believe that fourth generation fighters focus on the mental level. In fact, the fourth generation fighters turn their state enemies inward against themselves on the moral level, which makes political calculations at the mental level irrelevant.[25]

This might seem contradictory, but is not. What Hammes means is that policy makers, the people who have the power to command war, are making rational decisions based on their electorate's moral calculations. In that case, the nation's will is just a tool for the fourth generation to influence policy makers to arrive at a rational decision to terminate the war. Their will is shaped via the unwillingness of their electorate (moral level); the politicians' sophisticated rationality, and the knowledge (mental level) will force them to make decisions that favor the opponent. Lind is convinced that the fourth generation is not going to be satisfied just by ending the war against their entity but that they will seek for revenge and keep pulling opposing states apart on a moral level.[26] This is a step forward, but it cannot be a rule by itself. Going offensive depends on many factors related to previous conflict outcomes, the needs of a struggling nation, and their reasoning.

Nevertheless, in the scope of physical warfighting it is not as relevant as who fights or what they fight for. The biggest challenge for national armed forces is *how* and *where* the actual fight takes place. Strategies and tactics matter. Fourth generation warriors have modified classic guerrilla tactics and extended the battlefield across the globe, making them difficult to target as a physical entity.[27] If the idea has become the driving principle, and the opposing force has mastered the skill of emerging and dispersing among the civilian population within minutes, there is little to target physically as was the case in the Iraq insurgency.[28] This is the reason why technical superiority on the contemporary battlefield is less important and armed forces cannot by themselves cope with current insurgents.

Per the ideas of Fourth Generation strategists, the opponent's high tech but structured hierarchical army becomes almost irrelevant.[29] The

insurgent or irregular faction's focus is to undermine the enemy's moral support base in their home country by employing all the powers of war – physical, mental and moral.[30] Irregular warfare, through terrorism, can bring the physical fight into the Western states to enforce their argument. The irregulars' main effort is not focused on defeating their enemy's armed forces physically; it is targeting the public opinion in the opponents' home with the aim to destroy the enemy's will to continue the struggle.[31]

How can one set up a winning strategy against so blurred, undefined and untargetable opponent? What is the actual target? More importantly – in what dimension is that target and how by striking this target one might prevail?

**Who are "fourth generation" warfighters and why do they fight?**

In doctrines and theories they are described mainly by their ideological aims. They are called resistance fighters, insurgents, guerrillas, and terrorists.[32] Even within those categories they have different agendas that cannot be simplified with a common concept.[33] However, that may be irrelevant at the beginning. Before they emerge there must be a root cause that creates the human will and empowers the moral force to take the path of resistance.

The human will wages wars.[34] There is always an underlying cause for that will to emerge. Something must have gone wrong if people grab weapons or emplace improvised explosive devices (IED) at a roadside. Something must have gone wrong when people carry out suicide attacks. If one focuses the efforts to the original cause, one may be able to prevent that hostile will from escalating to the point where it needs to be fought on a large scale.

Two Chinese Colonels, Qiao Liang and Wang Xiangsui, the authors of *Unrestricted Warfare*,[35] describe that an official reason for starting a war can be anything from a dispute over a territory and resources, over ideology, or the distribution of power. The real reason for a war can be different from the official reason.[36] One cause for future struggle are limited resources where the population is growing and there exists a fear that a nation will fail to preserve its standard of living, and even fail to survive, is resources are not secured.[37] This can force stronger nations to exploit resources that weaker ones possess. In democratic societies the problem of resources can be solved by cooperation, trade and in other peaceful ways. But resource allocation might still be the main initiator of social conflict within the

weaker nation. While ruling class of weak third world state increases in wealth, the ordinary people face an uncertain future. These conditions create fear at the individual and societal level and provoke a need to defend one's family and social group against the perceived threat. With the right environmental factors resistance to the state or perceived enemy is created.

Though whole populations are unlikely to unite as an organized resistance without capable leadership, there will be smaller groups of people ready to who mobilize and fight and whose local leaders are primarily motivated by a desire to preserve their way of life. As this might not be achieved in a peaceful manner, the situation will turn violent. This causes a snowball effect in which the state kills rebels and their families and tribes take revenge. This was a common local problem in earlier times, but Western technological advances and innovation have created a "globalization effect" and the local now quickly becomes an international issue.[38]

Lt. Col. David Kilcullen, the author of *The Accidental Guerrilla*,[39] finds that the uneven pace and spread of globalization has created the so-called gap countries in Africa, the Middle East, and Latin America, sometimes also called "rogue states". These have become safe havens for terrorist activity[40] where the savvier groups can organize, recruit, and promote their cause. This was the case with Al Qaida in late 1990's when they found a sanctuary in Afghanistan under Taliban's protection.[41]

Dr. Mikkel Vedby Rasmussen, the author of *The Risk Society at War. Terror, Technology and Strategy in the Twenty-First Century*,[42] argues that it is globalization that makes terrorists react to what they regard as an infringement of their values.[43] He argues it is the cultural invasion of the West that triggers violent actions in the Third World.[44] This may be true in some cases.

A straightforward intervention in another nation can result in the type of clash as the West has encountered in Afghanistan.[45] However, as globalization is more about the spread of information and lifestyles there is no clear evidence that globalization as a single phenomenon can provoke a deadly conflict against another culture.

For people who engage in an active resistance against the West, or a government perceived as pro-Western, globalization may remain irrelevant. If people lack basic recourses, or they believe their identity and culture are threatened,[46] any justification that promises to preserve their desired *status quo* will initiate a struggle. Once a critical mass of dissatisfied people is mobilized, the fighting might focus on gaining more than just preserving

one's way of life. The conflict might focus on attacking the Western states' systems to prevent future interventions.

Leaders, the initiators of social mobilization and conflict, need proximity with masses of unsatisfied people to exercise influence.[47] This is normally accomplished by physical interaction. But today the media and communication assets multiply this proximity. In this manner globalization plays a great role by bringing the psychological presence via cyberspace and media[48] to remote areas and also potential resistance into Westerners' backyards. Globalization provides opponents with unprecedented access to a number of tools: the Internet, cell phones, satellite communications, and electronic fund transfers. It connects geographically distant groups that previously could not coordinate their actions.[49] This means that today and in the future the battlefield is everywhere.[50]

**What comes next?**

According to Colonel Hammes, the emergence of the fifth generation warfare will be marked by the increasing power of smaller entities, and the explosion of biotechnology. He uses an example from 2001, namely the anthrax attack on Washington DC's Capitol Hill. He argues that today even a single individual can effectively attack a nation-state, a new level of war.[51] Kilcullen is convinced that today's conflicts combine new actors with new technology and have transfigured the ways of war. But old threats also remain and have to be dealt with. This will stress the resources and overload the Western militaries. This threat is seen as Hybrid Warfare.[52]

Some NATO researchers at Allied Transformation Command agree that Hybrid Warfare is not likely to have distinct borders between conventional, non-conventional and organized crime actors.[53] This view indicates that states may adopt increasingly the *modus operandi* of non-state actors[54] because this approach creates extra uncertainty for the opponent and that is one of the main tools to break adversaries will to fight.[55] Such operations may become the kind of warfare that transcends all established boundaries and limits. It becomes Unrestricted Warfare as suggested by Colonels Liang and Xiangsui. That is a conflict where the distinction between the military and non-military will be destroyed and the battlefield will be everywhere. The current principles of combat will be modified, and the rules of war may need to be rewritten.[56]

NATO's predictions highlight that terrorism, increasingly global in scope and lethal in results, and the spread of weapons of mass destruction, are likely to be the principal threats to the Alliance over the foreseeable future. Instability caused by failed or failing states, regional crises and conflicts; the growing availability of sophisticated conventional weaponry; the misuse of emerging technologies; and the disruption of the flow of vital resources are likely to be the main risks and challenges for the Alliance in near future.[57] The Alliance will also need to prepare for the emerging challenges associated with energy, cyberspace, space and maritime security, as well as regional instability.[58]

The list above is a small part of prognosis for the future environment. What should the West do to counter these threats? There are two major options to consider: to stop interfering with possible crisis regions or to pre-empt the rising problems. The first option is unrealistic as the West cannot ignore security issues likely to escalate into something much worse. Secondly, Westerners still need to obtain outside resources.

Pre-empting new threats while sustaining resource needs seems the best option. But to succeed in both aims the traditional military may not be the best force for the job. Peaceful interaction requires a much more sophisticated approach.

**The concept of Pre-emptive Strategic Development Operations**

NATO's emphasis on the prevention of future conflicts needs practical application.[59] The concept of Pre-emptive Strategic Development Operations aims to provide a means to meet the goal of conflict prevention. Committing assets before a conflict is underway might be costly. But applying assets to improve existing systems to prevent the collapse is considerably less expensive than rebuilding all the systems after war has torn them apart. Add this cost to the loss of life in a war, as well as dealing with masses of refugees, then the long term cost advantages are clear.

Examples of long wars are the insurgencies in Iraq and Afghanistan. Both those conflicts were expected to be short and decisive.[60] However, Coalition and Alliance forces faced high attrition of resources. In 2009, the US alone spent in excess of $400 million per day in Iraq[61] and a total of $243 billion was spent in Afghanistan from 2001 to 2008.[62]

A similar approach of pre-emption is supported by some NATO researchers in the *Future Security Environment*: "[m]eeting the risks created by

weak and failing states requires not only international cooperation in counter terrorism and non-proliferation, but a broad and systematic international effort to help these states move from the category of the failing to the category of the succeeding. A state failure can no longer be seen as a localized or regional issue to be managed simply on an ad hoc, case-by-case basis. A more coherent and effective international *response*, which utilizes all of the tools at West's disposal, ranging from aid and humanitarian assistance to support for institution building could well be the course to take."[63]

A common response in the presence of the first indications that a state is about to fall into the downward spiral, is vital and more promising than reacting to a complete failure. That could provide better security and would eventually be less expensive for the Western nations.

Robert Martinage, Senior Defence Analyst at the Centre for Strategic and Budgetary Assessment, indicates that Western nations may not only be called upon to provide and build capacity for internal security and law enforcement, but rather for other "non-military" areas critical to the stability of the state (e.g., electrical power generation and distribution, water treatment and distribution, provision and distribution of food, sanitation, and medical care).[64] Additionally, some RAND researchers found in 2008 that given how long it takes to effect a real change in a society, counterinsurgents need to apply civil tools preventively at the first signs of trouble.[65]

There are three domains and two phases in current conflicts that need to be addressed: the application of informational, political and economic means (soft power) in the period before the conflict (*pre-conflict phase*) as well as during the conflict. The second phase is the transition of military means to civilian support (*transition phase*). In these phases civilian expertise is needed on site, but due to the high threat civilians often cannot operate there. Thus, an intermediate capability is needed-- an entity that can survive in harsh conditions while addressing the conflict area's social systems. This is an entity with the ability counter the physical threats while addressing social problems.

The US Special Forces have conducted this type of operations since their beginning. This approach is captured in their core missions of Foreign Internal Defence and Unconventional Warfare.[66] Recently the U.S. Special Operations Forces have begun deploying Tribal Engagement Teams to Afghanistan to win the trust of tribes and via co-operation with the locals

diminish the power base of Taliban. The main idea is to win the local people's trust, build up and train Tribal Security Forces (*Arbakai*) and promote good governance.[67] The focus is still predominantly on security related activities, but these alone are not sufficient.

In the *pre-conflict phase* the key is to be present and begin needed actions to deal with the root causes of an arising conflict. This can reduce tensions and prevent collapse. However, this phase must be carried out in close interaction with the key players in the area. It is vital to have a strategy to deal with the regional political groups and to ensure their support. However, in many cases it may not be a good idea to impose a democratic system that might clash with the local culture and produce a violent social reaction.

The problem is to recognize root causes and apply the right influence at the right time, in the right location. In the meantime intelligence gathering and a supportive network should be developed to shorten the lead-up time for political decisions in case deployment of conventional military forces is needed. If prevention fails and a conflict still emerges, there will already be networks and communication platforms established so follow-on forces can build on that.

The same modus operandi could be used in case a conflict does emerge. This is most important moment is the *transition phase*. At the end of a high intensity conflict a defeated state's systems will be at their weakest. As in Iraq after the Coalition forces defeated Saddam's the breakdown of the state apparatus and vacuum left by the invading forces contributed to conditions that encouraged an insurgency.[68] In such situations special units with proper resources can address the system breakdown and prevent an insurgency. This transition phase is dangerous in terms of force protection so operators must be competent in military tactics as well as civilian skills. An example of the failure to follow this common sense approach is Iraq, where the civil governance effort went largely unsupported in 2003–2004 when it was most needed.[69]

The strategy and special teams need to be prepared well in advance of an open conflict and their advice should reach policymakers who can coordinate the military response accordingly. In most cases this demands an understanding of the messages from the field. Actors in the decision making process need to understand that other cultures have different values.

## The struggle over perceptions at the strategic level

Before elaborating the theory of the Pre-emptive Strategic Development Operations (PSDO) some issues need to be addressed. First, one needs to recognize where the Western nations have different fundamental beliefs than third world nations. This is a key issue in on-going conflicts.[70] William Lind argues that it was a major mistake to completely destruct an existing state system after a conventional conflict, as it happened in Afghanistan and Iraq. By doing this the attacker creates a vacuum of legitimate power, an ungoverned space to be exploited by non-state actors faster than a new state can be implemented.[71]

U.S. Senator John Kerry argues that the U.S. should not commit troops to the battlefield without a clear understanding of what decision makers expect them to accomplish, how long it will take, and how to maintain the consent of the people – in short, a clear strategy.[72] A strategy will not be feasible without knowing and appreciating the situation. One must also have sound assumptions. One major situational aspect to an intervention is the local culture as this drives the local decision making. Jaswant Singh, a former Indian finance minister, foreign minister, and defence minister, points out that the coalition in Afghanistan failed to, "realize the historical truth" of the country. Singh argues the conflict is built on miscalculations about Afghanistan culture and is it is therefore unlikely that Western forces can win.[73] His argument is that dissimilar cultures may have different rationalities.[74] Behaviours called irrational by Westerners may not be seen as such outside Western culture.[75] Forcing others to accept the Western beliefs or systems creates friction and even violent resistance. There are also different cultural understandings about democracy and human rights that do not correlate.[76]

Lieutenant Colonel Kilcullen criticizes the tendency to lump all threats together under the banner of a "global war on terrorism". This tends to have the opposite effect that is intended by unifying disparate groups in the face of common external enemy. This is a fusion mechanism that sociologists call "primary group cohesion".[77] The amplifying factor is the globalization that allows these disparate groups to unite globally via cyber space. Indeed, Western nations seem to force this process.

Dr. Montgomery McFate, a senior social scientist for the US Army's Human Terrain System, claims that, "misunderstanding culture at the strategic level can produce policies that exacerbate an insurgency; a lack of cultural knowledge at the operational level can lead to negative public

opinion; and ignorance of the culture at the tactical level endangers both civilians and troops. In summary, the lack of adversary cultural knowledge can have grave consequences strategically, operationally, and tactically."[78] That can be seen as a major reason for the failure to create a strategy that can work.

Western perceptions can be incorrect about basic things. Even largely illiterate societies can show a high degree of technical competence and problem solving skills.[79] Over the past several years the Coalition forces in Afghanistan have seen sophisticated developments in the use of IEDs and in other tactics. The *Al Qaeda manual* is highly sophisticated and well developed.[80] Insurgents in third world countries are able to exploit Internet and media very effectively.[81] These same insurgents have even hacked Western communications.

Another problem is the belief that overwhelming force can end disputes. That is probably true in terms of Western rationality, as the Kosovo conflict demonstrated in 1999.[82] However, this may not work in terms of Eastern cultures. McFate notes that winning on the battlefield is irrelevant against an insurgent adversary. Often the use of overwhelming force can have the negative effect of strengthening the insurgency by creating martyrs, increasing insurgent recruitment, and demonstrating the "brutality" of state or coalition forces.[83] In Afghanistan areas "cleaned" are soon again filled with insurgents, who during major combat operations hid themselves among the people or retreated to wait for the show to be over.[84]

The former ISAF Commander Gen Stanley A. McChrystal understood this dilemma and directed the emphasis for the Coalition forces to be directed on population protection and state building as the most important activities in Afghanistan.[85] Meanwhile he restricted the use of force, particularly air power, which was perceived (correctly of not) as a major cause of civilian casualties.[86]

The biggest contrast between East and West may be different concepts of time. This again comes from culture. In the Western world the "time is money" creates an impatience to achieve the goals without realizing the different value of time.[87] That can be a source of friction between cultures when one tries to influence the other. It may lead to a short term focus while missing long term effects.

Small states like Estonia can take better advantage of their capabilities through a more comprehensive strategy. By contributing conventional

units to conflicts they in Iraq and Afghanistan they win the approval of their allies but do not make much of a difference. Yet there are opportunities for small states in prevention of conflicts as one of them may be a part of the framework of concept of Pre-emptive Strategic Development Operations.

## The essence of Pre-emptive Strategic Development Operations

The best pre-emptive action to diminish the rising conflicts is the use of balanced development, educational, and participatory strategies to restrain corruption and open alternatives for future generations in the target societies.[88] This is based on the reasoning that participants satisfied with their market position and with a positive expectation about the future are more risk averse are less likely to challenge the state order than those who are unsatisfied and pessimistic about the future.[89]

James Corum emphasizes that a counterinsurgency strategy must address *all* of the major issues: politics, economics, infrastructure, social problems, security of a population, foreign involvement, and so on.[90] In a functioning state system all these elements work together, but breakdown in one can cause the others to collapse and bring down the whole system. This is essential to understand while assisting a failing government to sustain the whole arrangement, as otherwise the West might face the protracted war.

The type of assisting presence has to be agreed upon and given legitimacy by the local authorities and main political movements in the area because only these groups that can create a stable situation in long-run. One cannot simply impose stability from the outside. Direct contradiction with local beliefs and traditions is to be avoided to prevent friction. Efforts should be made to identify and address failing systems *before* the situation becomes a conflict. Therefore, Lieutenant Colonel Kilcullen suggests applying two new mission sets: *Strategic Disruption* and *Military Assistance.*

Strategic disruption aims to keep potential enemy's groups off balance, prevent the emergence of new terrorist threats, disrupt safe heavens, and defeat adversary propaganda. This may include lethal effects. That looks offensive and is that on a tactical level, but it is actually defensive on a strategic level, because it deals only with today's threats and does not contribute to preventing a next generation of enemies from emerging. A decisive mission set is actually military assistance. This is aimed at restructuring the environment over a long term by denying an enemy or potential enemy a role, reducing the recruitment base, and influencing

conditions that may generate a threat. This requires a low-profile civilian type presence over and above the overwhelming military display in a crisis area. All the activities aimed at influencing the situation should be carried out as indirectly as possible to avoid negative reactions from local populace. This mission set is seen defensive tactically, but it is actually offensive on a strategic level.[91]

Both of these mission-sets can be seen as vital components of PSDO because one will always complement the other. Depending on the area and other factors the emphasis on disruption activities may vary greatly but the capability for this will always exist.

However, the idea of Pre-emptive Strategic Development Operations will take a step further. First, the strategy of this approach should be planned, coordinated, and supported in an alliance and not single-handedly by a nation leading or conducting the operation. That allows using more assets and unique capabilities that different nations have. Additionally, it is vital to deconflict different national ambitions and aspirations in Third World countries and in any case enforce an ethical approach..

Secondly, Pre-emptive Strategic Development Operations are meant to do much more than just communications and promotions. The focus is to be placed on physical improvement of actual weak points in a social system, where economic, informational, diplomatic and military support is designed to shape the conditions favourable to social stability in target area. The operators should use all available recourses and subject matter expertise to implement those assets with minimum losses to corruption or misuse by lack of expertise on spot. The focus will be to build loyalty "to empower local people to act as partners with government and foreign aid agencies toward shared, long-term objectives".[92] All the activities are to be carried out using non-provocative methods – there should be no reasons for discontent of populace and the projects are to be sensed as leading to improvement of their future. These are to be long-running operations, where physical presence and support in recourses should be granted until the situation has actually improved and can be sustained without external assistance.

The cornerstone of PSDO is the shift of attention to human dimension, local culture and economic situation in possibly failing states and *application* of the necessary means *before* a conflict arises. The aim is to improve social systems before they break down and thereby to deny the option, reason and space for violent conflict.

According to Professor Steven Metz of the U.S. Army War College and Gen Charles F. Wald, USAF, Deputy Commander, U.S. European Command, a counterinsurgency strategy must offer alternative sources of identity and empowerment for bored, disillusioned, and disempowered young males who are the main risk group that can become insurgents. Simply providing low paying, low status jobs or the opportunity to attend school is not enough.[93] Again, the same paradigm has to apply to Pre-emptive Strategic Development Operations, as the creation of *resilient* job options as well as outputs to market are most likely to be the main preventive factor of conflict as that is the source of hope for better future.

For PSDO operations the approach may be substantially different from the Clear-Hold-Build model in counterinsurgency operations as it is described in the draft NATO COIN doctrine. The participation and presence of host nation (HN) security forces (that should include the armed forces and police) may be misleading. The NATO description leaves the impression that NATO forces usually *solely* conduct the clear - hold phases and transition to HN security forces in the build phase.[94] That contradicts most of principles of the same doctrine and the outsider in the lead model has been unsuccessful in the past. In fact, embedding the HN security forces as much as possible is necessary from the start, as only their presence can diminish the people's negative perception of NATO forces as an occupying force. Not committing HN security forces will lead to a fragile hold phase and thus never reach the effective build phase. The creation and activation of HN security forces should start as soon as possible in order to commit them as much as possible in following phases. Lost time in creation of HN power will likely lead to a protracted conflict as in Afghanistan and in Iraq.

For PSDO the approach could follow the phases of *Identify-Invest-Supervise*. The operation begins with the identification, and all phases are conducted concurrently. The identification is aimed at spotting the root causes of emergent conflicts. This includes reconnaissance to identify the key personnel and gather information. This initiates the Strategic Development Group that will work on plans, and committing partners and NGOs to addressing the weak spots. Invest means building relationships with key personnel to apply solutions together while leaving actual operators in shadow. The control of monetary assets remains in the hands of the operational team. The operators invest their subject matter expertise and control the use of donated money and equipment to ensure an honest and purposeful application. Supervision of assets is conducted throughout the

invest phase, but this function should remain running in a background even when the parts of the development program are withdrawn after a successful operation. That is to track the continuity of the strategy and to be ready to insert a specialist team with necessary resources quickly in case of breakdown or the likelihood of breakdown.

To be effective in the Pre-emptive Strategic Development Operations actors at all levels need to understand and accept the following three major principles: First, every project and action should take local cultural context into consideration.[95] The population's worldview and social systems must be understood and accepted as they are. If their existing systems are not effective then change must be implemented using acceptable methods. Rushing and enforcing may create friction and lead to failure. Patience and understanding are the key words.[96] One cannot make another culture similar to one's own, especially in short timeframe. Enforcing democratic values and even women's rights in Islamic world can create enormous friction[97] and therefore jeopardize the mission. The change of values is an extremely sensitive topic and a major source of conflict. If a change is needed, it should be introduced as carefully as possible and within a timeframe that is acceptable to the target audience.

Second, there is no need to enforce changes in systems when these are not needed. This understanding is dependent on understanding the reasoning of the target group. Systems in different cultures that seem dysfunctional or ineffective to Westerners may be acceptable and even practical in their systems.[98]

NATO nations should reconsider the belief that armies can prepare secure security situation that allows civilian expertise to follow. The leading role in most situations should be placed even more in the civilian hands. The military, in maintaining a low profile, can generally provide local security for civilian experts to implement development programs. The role of armed forces is to be supportive and low key as an overwhelming display of force will most likely provoke insurgents and pose a threat to operational goals.[99] Still, a sufficient force to defend the project team must be located in an area and should be held in low profile and high readiness. In case of hostile actions quick reaction forces should take direct and decisive action to extract the project teams. The use of kinetic power must be carefully calculated to cause minimum negative effects to overall aims. The same approach, with necessary variations, should be used in the

*transition phase*. The aim is to reduce people's uncertainty towards their future and this will diminish the pool of possible insurgents.

This should be implemented as early as possible, not just as a response to an insurgency once it begins. Constant monitoring of a situation becomes vital, necessitating the use of all intelligence assets, including human presence, in a target area. Creation of vital networks, intelligence collection and preparation of kinetic targets as contingencies for conventional military intervention will take place correspondingly. To prepare a region and to ensure the right form of development at the right time in right locations, conceptual and organizational improvements are needed.

## Need for a common understanding and policy

Professor Miemie W Byrd of the Asia Pacific Center for Security Studies suggests that a (U.S.) counterterrorism strategy should include economic policies that encourage development, more open societies, and opportunities for better living. Initiating and sustaining economic growth in the poorest areas requires creativity and cooperation among organizations such as the United Nations Development Program, governmental aid agencies, military forces, nongovernmental organizations (NGOs), and private businesses.[100] In that context, the same strategy should be universal to the whole Western world. Key organizations that should agree are the European Union (EU) and the NATO.

The PSDO approach needs a common policy and this is difficult to achieve.[101] Every nation has its own interests and agendas, and even the EU and NATO, although sharing democratic values, compete for influence.[102] This can be an obstacle in forging a common Western strategy to deal with frequent threats.

Encouraging news comes from NATO regarding its emphasis on cooperation with the EU. The new Strategic Concept promises to:

- strengthen the strategic partnership with the EU in the spirit of full mutual openness, transparency, complementarity and respect for the autonomy and institutional integrity of both organizations;
- enhance our practical cooperation in operations throughout the crisis spectrum, from coordinated planning to mutual support in the field;

- broaden our political consultations to include all issues of common concern, in order to share assessments and perspectives;
- cooperate more fully in capability development to minimize duplication and maximize cost-effectiveness.[103]

At the strategic level the EU is beginning to understand the need to mix military and civilian planning capabilities for effective crisis response. Integration is planned to take place in the Crisis Management Planning Directorate established in December 2008.[104] However, that concept has major challenges. Political, cultural and branch centric approaches are obstacles to overcome. However, understanding and actual integration will take place at higher levels in the EU in a slow and steady fashion.[105] This means that the capability to deploy to crisis areas will be expected from member states.

This approach suggests that nations should build coordinated bilateral liaison and cooperation with target states to create a framework in which consultants, trainers, and project managers with access to national and international funds would be present in the area. They would work in a civilian posture and follow local rules while monitoring the situation and sending information back home. Connections to civil society networks, often operating behind the scenes, support to local initiatives, and diplomatic persuasion to modify the target area's government behaviour are important tactics in those operations.[106] Such an approach does not require a UN mandate and provides reliable advice to decision-makers if the need for military intervention arises.[107] A common policy and strategy would deconflict national interests and use the limited resources with maximum effectiveness. However, it is not assured that NATO will accept integrated crisis planning, which in addition to civilian planners gives full authority to the EU representatives from the strategic to the tactical level.

In Pre-emptive Strategic Development Operations there could be practical coalitions where states develop projects together that complement each other's capabilities within commonly agreed strategies. This partnering is most relevant to smaller states that have fewer resources and need to focus on their specific fields of expertise. The most important thing is to have a well-defined and agreed strategic aim common to all actors. If the project teams are as civilian as possible there is a better chance to attract the involvement of non-profit organizations and privately funded organizations.

In the case of failure to prevent the conflict and a subsequent agreement to commit military forces project teams should become advisers to the Joint Force Commander. They would be responsible for suggesting proper methods, uses of force, and targets as they will have the most experience concerning the political, social and cultural conditions.

**Improvements needed in current operational systems**

While some needed strategic improvements have been described, there are also gaps in the current systems at operational and tactical levels. As planners and primary executors, armed forces need to adjust their way of thinking to be more open. Here are some examples.

*Military culture.* Armed forces are designed to take life, not to improve it and this can produce friction between military and civilian agencies. However, to be effective in current and future conflicts interagency cooperation is crucial. Thereby, all actors need to drop the mode of competition and co-operate to create and implement a working strategy. Strategic thinking has to be the guideline for all players at all levels. Extensive collaboration between allied states, governmental, and non-government organizations, private funding bodies, and investors is the new power in any operation, even on tactical level. Power does not lie in the military alone.[108] The military, by using conventional means, is the last resort, but even then it must work according to the guidelines of civilian authorities. This may mean that the actual leading role in an area of operations is in the hands of civilian staff, and the military may be a supporting asset.

Creating cultural change is a big challenge for Western armed forces. Western military structures are still characterized by top-down management, a lack of innovative goals, long and complex approval cycles, short-term orientation due to frequent personnel turnover, and paralysis that can result from a risk-free culture.[109] Military culture itself should undergo major changes. Within PSDO the military staff may become just a section of a civilian-led staff. Civilian authorities and assets are to take the lead and be supported by military units as needed. This means a new design of operations. Instead of the current doctrinal and Comprehensive Approach where militaries secure the environment to allow civilian support to follow as soon as practical[110] the civilian capabilities need to be alongside the military from the first. More than that, they need to be there before operations.

*Provincial Reconstruction Teams*. The Civilian Military Cooperation (CIMIC) concept and Afghanistan Provincial Reconstruction Teams (PRTs) are good examples of addressing the whole range of issues and stressing the social dimension. PRTs are designed to improve security, support good governance, and enhance provincial development. Teams are made up of international civilian and military resources that allow the PRT to have wide latitude in implementing its mandate. There are currently 26 PRTs in Afghanistan.[111]

However, there are significant problems with coordination, leadership, conflicting interests and pre-mission training of PRT members.[112] The concept seems to lack a clear overarching strategy and a lead entity that could better coordinate the national efforts in build-up the country and win locals to government's side.[113] David C. Gompert and John Gordon IV, the authors of *War by Other Means,*[114] find three main reasons why the PRT concept is not fully successful: lack of an operational culture, insufficient personnel, and inadequate funds.[115]

However, there have been successful applications of this principle in the past, among others in Malaysia and Vietnam. The Malaysian emergency of 1948-1960 was a communist insurgency mainly consisting of ethnic Chinese fighting to create a Marxist Malaysian State. Initially the British plan was to defeat the insurgents militarily. After four years of ineffective operations, British governor and military commander Sir Gerald Templer in 1952-54 developed a political and social strategy. He built an organization that focused on raising the life quality of local population by constructing schools, new housing for the Chinese, and controlling the distribution of food. He electrified rural villages and increased the number and quality of local security forces. He also empowered the Chinese community to govern and secure themselves with British support. These actions undermined the insurgents' appeal and made the local government stronger and more popular in the eyes of the people. This strategy and unified organizational focus that integrated military and civilian efforts at all levels were key to successfully bringing peace and stability to Malaya.[116]

During the Vietnam War the *Civil Operations and Rural Development Strategy (CORDS)* was implemented in 1967 in South Vietnam. This involved the creation of advisory teams composed of military and civilian personnel at the provincial and district levels to handle community development, including public health and administration, civil affairs, education, agriculture, psychological operations, logistics and management of military

issues. The province chief, usually a South Vietnamese Army or Marine colonel, was assisted by an American counterpart who was the province senior adviser, who was either military or civilian depending on the security situation of the respective province. Within the program a sub-project called Phoenix was conducted. Project teams were created to collect intelligence on insurgents, neutralize them, and assist local security forces to maintain order. The strategy was so effective that it was a major concern and special target for North Vietnam leaders.[117] [118]

*Information domain.* The Internet has become an avenue of approach leading to the military objective.[119] This fact should be considered as an augmentation to other operations.[120] Insurgents need a close and relevantly undisturbed proximity with the population in order to influence them. Meanwhile, intervention forces can be too thin on the ground and that creates the opportunity for insurgents to influence the population as insurgency is often a competition for uncontrolled spaces.[121] Western nations need to understand and use virtual space more effectively.[122] Cyberspace presence may be a reasonable alternative that is less provocative, but at the same time a direct tool for exercising influence. "Internetization" with the aim of contributing to rural development and information sharing from local government can shape public opinion and improve the quality of life.[123] This could be implemented within Pre-emptive Strategic Development Operations as a main effort as the use of the Internet is spreading constantly.[124] However, one also sees a trend in third world countries that allows adversaries a chance to use the World Wide Web to coordinate actions and inflame attitudes against the West.[125]

Information is the only means to change a person's opinion.[126] By creating Internet coverage and providing the assets to use it one has the option for more sophisticated information operations. That could have a twofold effect – first, it would blur the adversaries' propaganda as it would face a mass of other opinions. This is effective denial of the single source input to an uncommitted population that has not yet taken sides. It can even create doubts about previously acquired perceptions. Second, by exposing people to the pictures and stories of different lifestyles and values one can change their perceptions and, in the long-run, even culture.[127]

The World Wide Web has also become a terrorist propaganda and recruitment system, and even a support mechanism for physical attacks.[128] However, there are other uses for the Web. There are options for pro-government homepages, banners, cyber social networks and other

information. The Internet can be seen as a threat, but can also be used for positive development purposes. It can be a way to outmanoeuvre the enemy in that dimension – because on the net they have the same vulnerabilities as the West.[129] Today a laptop computer with a freeware operating system is relevantly cheap.[130] Thus, networking could be set up using the existing mobile phone infrastructure.[131] Power can be produced by donated generators, guarded by local village security teams, but maintained by government services until power lines are available. *Smartphones,* for example, will enter the Afghanistan market in the near future and then the Internet will penetrate even to the most remote areas.[132] If the West does not take the lead on controlling this network, someone else will.

*Time perspective and development of the next generation*. Lastly the perspective of time and a focus on the next generation is important. No country wants to be committed to a protracted war. However, this is a problem today and the phenomenon will continue as long there are developing insurgencies. Relevantly short term perspectives are likely to extend current problems for decades. The question is – who will be in charge in ten years? Current counterinsurgency doctrines do not stress the need to educate and develop the next generation.

A school system could be the one of the most important projects for failing countries to invest in. During the Soviet invasion to Afghanistan in the 1980's a whole generation of youth was educated in *madrasahs* (religious schools) in Pakistan, where they were, from a Western perspective, radicalized.[133] This generation is now in their 40s. According to UNICEF the average life expectancy in Afghanistan in 2008 was 44 years.[134] This means that the men in charge now who are shaping the perceptions of the next generation have all been in one way or another shaped by the West since 2001. However, this has not been done in a way that would support the Western cause.

The median age in Afghanistan is 18.2 years.[135] Latest reports show that midlevel Taliban leaders are now younger than before, often in their mid-20's,[136] which indicates that the fighters' age is below that – early 20's on average. The most troublesome fighters today were in elementary school age in the early 2000's. Had the West supported a school system that shaped the youth then we might not have as large a corps of insurgents today. That might already be a strategic consideration.

The simple truth is this that today's young people will have the vote tomorrow. Ignoring the shaping of their world view can keep a conflict protracted. From the military viewpoint the most worthwhile parts of the system of supporting the youth include the infrastructure, teachers, and routes form villages to schools. There are numerous ways to make the education attractive by adding lunches, clothing, and additional family support for school attendance. For local people their children remain the most important factor and through the children the perceptions of parents can be shaped as well. This can be a powerful indirect approach to the problem that must inevitably be tackled.

**Strategic Development Group as the lead body of a national effort**

To conduct Strategic Pre-emptive Development Operations a national Strategic Development Group could be created and tasked with advising national leaders and coordinating plans with partners. The purpose of this group would be to study and create strategies in conjunction with the *total strategy*[137] of the nation. As with national strategies, planning and executing of Pre-emptive Strategic Development Operations should be done with fully integrated civil and military expertise. The intention is to fill the gap between academics and practitioners by joining them under a permanent working group.[138] This requires that the service centric attitudes and competition have to be avoided. Every ministry and office should have a role in that body and the focus on the endstate maintained – this being the improvement of the nation's position in the international arena and mitigation of future security risks. This body would also be responsible for monitoring, analysing, planning and guiding the action process. The body represents the interagency cooperation needed to combine the best practices from all necessary fields. The group needs a direct communication link to the government and allied partners to conduct multidimensional coordination.[139]

The group should be comprised of leading experts in a variety of sectors – economy, intelligence, internal security, defence forces, science, education, energy industry, info-technology. The group should exercise its authority by guiding all national departments, experts, advisors, civil companies in their involvement in development operations. When an operation is identified the planning, leading, supporting and monitoring the execution become the tasks at hand.

The primary tasks of the group would be to monitor global trends and conduct analysis on strategic and operational issues to include the military, economic, diplomatic and informational domains. The guideline is to identify developments that may pose a threat or an opportunity. These developments should be identified and projects launched as soon as possible. To avoid exhausting national resources communication and liaison with international organizations, non-government organizations and foundations is to be maintained. Once needed actions are identified and validated, the group will put together an integrated action team to gather data from the ground and then execute the mission. While the operation is on-going, a reach-back system is needed to advise and coordinate the efforts.

The group should work on developing specific domains for future improvement, by analysing the needs and advising state departments and other organizations. This approach does not demand many additional resources to be committed. This approach uses the existing range of capabilities already in place by combining them. Resource needs that exceed the national ability will be agreed to and committed from umbrella organizations, such as the EU or NATO, strategic bilateral partners, or non-government organizations and private groups.

The Strategic Development Group should encompass the following phases: monitoring the situation and trends, analysing information to identify the need to become committed, devising a preliminary plan of execution, conducting reconnaissance by a comprehensively combined expert team, finalize the plan, commit partners and resources, support the execution of the operation, and finally, gather and analyse the feedback and lessons identified.

Who should belong to the comprehensive combined action teams? What entity possesses the required civil expertise and can survive in the high threat areas?

**Special Operation Forces transformation**

The physical threat situation in remote areas, in failing states, or in conflict zones such as Iraq and Afghanistan, can be extremely challenging. Planning at home is worth little if there is no one to send to implement the fieldwork. Often the situation is so tense of violence that civilian experts, even under close protection, are in grave danger.[140] That can be overcome by creating or modifying "intermediate" units. The ideal platforms to build

on are Special Operation Forces (SOF), whose nature is to cooperate with indigenous people in a low-key mode in remote areas and in high risk environments.[141] Modified SOF units should receive additional training in skills other than soldiering and language/cultural awareness and develop expertise in vital civilian areas. They should look, talk and act like civilians while having strategic "reach back" communication options to experts in homeland. However, when under physical attack, these forces would be able to turn into fighters and defend themselves.

This might be the future of SOF operations as this force loses core tasks to conventional units. At the NATO SOF Symposium in Deauville, France 2008 this problem was addressed and a primary topic was how to move SOF into new, more sophisticated, fields and more strategic operations.[142] However, integrating national strategic requirements and NATO demands for allied SOF remains a problem.

The *NATO Glossary of Terms and Definitions* defines Special Operations as "military activities conducted by specially designated, organized, trained, and equipped forces using operational tactics, techniques, and modes of employment not standard to conventional forces. These activities are conducted across the spectrum of conflict independently, integrated with, or in coordination with operations of conventional forces to achieve political, military, informational, and economic objectives. Politico-military considerations may require low prominence, covert or discreet techniques, and the acceptance of a degree of physical and political risk not associated with conventional operations."[143]

In comparison, the *U.S. Doctrine of Special Operations*, one notes that, "Special Operations can be designed and conducted to *influence the will* of foreign leadership and/or populations to create conditions favourable to US *strategic aims or objectives*. This may involve a long-term commitment to achieve the desired result. Alternatively, special operations may be principally directed at high-value targets of *strategic significance*. Such operations are often time-sensitive and rely on surprise, security, and audacity, and frequently employ deception to achieve success. These missions can be overt, clandestine, or covert in nature. Some operations may involve high physical and political risk, and can offer the potential for high returns, but rarely a second chance should a first attempt fail."[144]

One can draw some conclusions from these broad definitions. First, the NATO glossary does not mention the strategic aims of the Special Operations as the way it is done per US doctrine. This leaves open an

option to use this scarce resource in tactical roles by theatre commanders. Sometimes this might be justified, but in general it is a misuse of this this capability. Political, military, informational, and economic objectives are stressed that might lead to strategic or operational objectives, but the levels should be expressed clearly.

Gen Peter J. Schoomaker, former US Army chief of staff, finds that, "in the essence Special Operation Forces should support *directly* the strategy by shaping, responding, and preparing for the future in the path towards the strategic aims."[145] Interestingly, even the NATO SOF study finds that SOF should provide a strategic offensive and defensive asymmetric capability that will provide the political and senior military leaders with options that retain freedom of action while at the same time employing an economy of force.[146] However, this understanding has not found its way to the *Allied Doctrine for Special Operations*, where the description of the Special Operations repeats the standpoints of the *NATO Glossary of Terms and Definitions*.[147]

National Special Operations Forces usually fall under the highest authorities of political or military leadership and are used according to national policies. As the relevance of SOF in recent and on-going operations was recognized and operational gaps identified, NATO nations realized the need to integrate these strategic assets.[148] Therefore, the NATO SOF transformation initiative (NSTI) was declared at the NATO Summit in Riga in 2006. The initiative was aimed at increasing national SOF ability to train and operate together, including improving equipment capabilities.[149]

In June 2007 the NATO Special Operations Coordination Centre (NSCC) was established at SHAPE in Casteau, Belgium as the centrepiece of the NSTI. In March 2010 it was re-designated as the NATO Special Operations Headquarters (NSHQ) with the aim to provide focused Special Operations advice to the Supreme Allied Commander in Europe (SACEUR) and the NATO Chain of Command and to provide a collaborative, inter-dependent platform to enhance the Alliance SOF network.[150] The mission of NSHQ is to be "the primary point of direction and coordination for all NATO Special Operations-related activities in order to optimize employment of Special Operations Forces to include providing an operational command capability when directed by SACEUR."[151] The NSHQ does this by providing the Alliance SOF a proposal for a "NATO SOF policy, standards, doctrine, training, education

and assessments, which maintains and develops a robust operational command, control, communications, computers, and intelligence (C4I) capability equipped with organic SOF enablers to ensure interoperability and enhance employment of NATO Special Operations."[152]

That new structure has already produced some remarkable developments in the commitment of national Special Operations Forces into the conflict in Afghanistan. With the assistance of NSHQ the national SOF units and staff officers' contributions to the mission have been impressive. Within the first two years of its existence (2007 – 2008) the NSCC was able to mobilize five new Special Operations Task Groups under a unified command. That was a more than 250% increase of this type of force on the ground.[153]

According to the NATO SOF doctrine, the three principal tasks of NATO SOF in any operation are: Special Reconnaissance and Surveillance, Direct Action, and Military Assistance, where the last is the closest to the non-kinetic and indirect influence mode. That again is limited to assistance via training and advising of host nation military personnel.[154]

The use of coalition SOF units within NATO SOF doctrinal tasks may produce strategic problems. There is a criticism that the kinetic approach by NATO SOF units can be counterproductive in meeting strategic goals in Afghanistan.[155] RAND researchers in 2008 found it appropriate for special operations to focus primarily on training local military forces and conduct kinetic tasks mostly aimed at high-value targets.[156] SOF units could be used in a more indirect manner to shape the strategy. The current kinetic focus could also wear out the teams and lower the ability to employ SOF in social domains where the vital civilian expertise is missing.

Currently the three core missions of NATO SOF described above are less relevant on the national strategic level. The core missions are clearly not enough to provide guidance for Pre-emptive Strategic Development Operations. The current doctrine is more combat focused and pays little attention to pre-emptive non-military actions. However, NATO SOF doctrine also provides a useful assessment tool for special operations operational missions by giving criteria that should be considered when evaluating SOF employment. According to the doctrine the SOF mission should be:

- *Appropriate*. Is the mission suitable for SOF capabilities, and does it accord fully with the higher objectives? Could another asset be

used? The mission must have a unique aspect that requires the special skills and capabilities of SOF, and which renders the mission unsuitable (or less suitable) for action by other assets.

- *Feasible.* If the mission is appropriate, can it feasibly be accomplished by the SOF assets available? Does the SOF element have the appropriate training, skills, planning and rehearsal time as well as the required cultural understanding?

- *Sustainable.* Are the resources adequate? Is the intelligence sufficient? Is there adequate infiltration, logistic sustainability on the ground, exfiltration, survivability, and communication support? Even if the target is appropriate, feasible and vulnerable to SOF, a lack of dedicated support resources may prevent the execution of a special operation.

- *Justifiable.* Does the expected outcome justify the risk? Commanders should recognize the high value and limited resources of SOF and ensure that the benefits of successful task execution are measurable and in balance with the risks inherent in the task. Assessment of risk should take into account not only the potential for loss of SOF units and equipment, but also the risk of adverse effects on Alliance interests should the mission fail.[157]

The reason these criteria are useful is captured in the *SOF Truths* that have been framed for the US Army SOF and recognized by other countries' services:

- Humans are more important than hardware
- Their quality is more important than quantities
- Special Operations Forces cannot be mass-produced
- Competent SOF cannot be created after emergencies occur.[158]

According to retired U.S. Army Colonel John M. Collins (the author of the truths above in 1987) he would complement them with a fourth: "Competent SOF cannot be created RAPIDLY after emergencies occur" and he suggested re-instating the original 5th truth:

- Most Special Operations require non-SOF assistance.[159]

Admiral Eric T. Olson, Commander, U.S. Special Operations Command, apparently agreed with Collins. Olson reinstated the fifth truth into the US

SOF doctrine. Admiral Olson noted the assistance of all sister services and other branches whose commitment has made SOF successful.[160] Even though he did not mention the civilian, the last truth is equally relevant for them.

Byrd finds that the cooperation with all relevant actors must become routine. Military personnel must be educated in emerging concepts and trends in the business sector and the military should invite business leaders and decision makers to counterterrorism conferences and seminars.[161] Close ties and common understanding should be created to help a nation to make rational decisions on how to contribute to crisis prevention around the world. In this case the National Strategic Development Group should have the leading role.

Lieutenant Colonel Moore argues that the future roles of SOF are to shape and prepare the strategic context to enable the application of the elements of national (or international – author's comment) power. SOF should operate across the spectrum of crisis (before, during, and after) and conduct overt, covert, and clandestine operations to support the strategic objectives of the nation (or coalition – author's comment). SOF will conduct engagement activities to detect a crisis and try to prevent it. Successful engagement operations can lead to shutting down a crisis before it escalates to war. All elements of national (and international – author's comment) power are to be focused on identifying a potential crisis and taking actions to impede its development. The critical periods become the periods before and after a crisis.[162]

Gen Peter J. Schoomaker envisages that, "Special Operations Forces need to access such diverse areas as commercial information technologies, utilization of space, biomedicine, environmental science, robotics, organizational design, and commercial research and development".[163]

The NATO New Strategic Concept defines cyber-attacks conducted by NATO adversaries' as one of the greatest security and stability risks. It recognizes that such attacks can nowadays inflict costly damages to the Western societies.[164] However, the answer to this threat, especially as it may come from well protected systems, is highly complicated. Martinage sees the option of educating and empowering SOF units to gain the access to closed cyber network systems in remote areas where no other means can reach. He then advises SOF to master the skills of tapping the fiber-optic and other lines, as well to acquire the necessary hacking skills.[165]

The good news is that, in recognition of the need for further development of operational approaches, the NATO SOF Headquarters is conducting NATO SOF symposia annually. At the symposium at Deauville France in 2008 Lieutenant Colonel Kilcullen raised ideas about SOF for the allied countries. Lieutenant Colonel Kilcullen admitted that contemporary conventional war is actually unconventional. So the question is which roles should SOF have in a situation where regular forces have taken over the most of their special skills such as close combat, training of indigenous forces, and so on?[166] Kilcullen argues that there will always be a need for SOF to react quickly to strategic situations that require a low-visibility force that is not possible for a mass of regular forces. However, that is not enough. SOF needs to become more pre-emptive because by simply reacting to situations the West has already lost the international initiative. Kilcullen suggests the use of NATO SOF to pre-empt and prevent conflicts. That would be the most politically and economically attractive endstate.[167]

Kilcullen proposed a new focus for SOF to assure better strategic results than it has achieved so far. He argued that the West may need to start using similar guerrilla tactics against adversaries. Combined with Information Operations experts, NATO should send SOF to provide assistance to the military in potential threat areas following four main tenets:

- Long duration operations to ensure constant and continuous influence;
- Low profile performance – not advertising one's presence with Western outfit. Employ a look and behaviour that is as similar as possible to locals while, at same time not hiding itself;
- Small footprint – respect of local people and avoidance of major changes that could outbalance the local community;
- Integration with locals and with all possible organizations and players in the area of operations.[168]

However, the political and economic development in target areas demands much more civilian knowledge than covered by the traditional Special Operations skills. Education in vital civilian skills, in addition to military training, can produce the desired effects on target and reduce the tension and thereby prevent the occurrence of conflict at the first place. That creates the need for a qualitative shift in SOF training and its focus on

deployments. This does not mean that SOF needs to drop their current training and tasks. They just need to learn and do more.[169]

Lieutenant Colonel Kilcullen argues that purely military operations, such as Special Reconnaissance and Direct Action, are offensive at tactical level but actually defensive at strategic level. On the other hand, military assistance is defensive at tactical level, but can be strategically offensive because it denies the support of local people to the enemy.[170]

Therefore, Kilcullen suggested focusing on two major operations as described above:

- Strategic Disruption – this involves mainly Special Reconnaissance and Direct Action and focuses on disrupting existing or emerging organizations and individuals that pose a threat, while keeping in mind that this is only a support effort for the most important mission set that is;
- Military Assistance – this should be the main effort and involve all players in the operations area, including police, government officials, non-government organizations, local companies etc. From Kilcullen's point of view this is the most important mission set for current and future operations as this is the only one that can assure achievement of desired end states.[171]

Kilcullen argues that via this type of new Military Assistance, when SOF units are first in a potential crisis area they can create a system of networks where all follow-on actors (conventional forces, civil agencies, NGO's etc.) can plug into later. Most importantly, leaders must understand that to create this capability takes time and effort. The training of such operators should include civilian expertise, sophisticated cultural awareness, and languages and related skills. Interagency cooperation becomes more important than ever before, and every opportunity should be taken to enhance it.[172] The need for similar approach is recognized by NATO analysts who suggest formulating plans to respond quickly to a variety of warfare models, ranging from high-intensity operations to the conduct of security assistance missions, to an advisory role in support of civilian authorities.[173]

However, this *modus operandi* is not likely to be conducted by SOF or any other entity alone. This method of operations requires extensive cooperation with civilian subject matter experts while SOF trains for, plans

and executes missions. Operators must go through the educational process in important areas such as anthropology, power engineering, law, healthcare, IT, communications, media campaign strategies to become competent to apply those tools effectively in a high threat environment. The rationale is that SOF operators, with high survivability skills, are the best placed to assist failing non-military systems in difficult conditions while still maintaining a low profile and high survivability. This is true for situations where the civilians would not take the risk, or where protecting civilians would endanger the operation by greatly enlarging the footprint.[174]

For Pre-emptive Strategic Development Operations the Special Operations Forces should become directly subordinated to previously described Strategic Development Group or its equivalent in a theatre of operations. For strategic missions it is vital to have direct communication between these two actors. However, it must be made clear that there should be no direct influence of daily political affairs on operations in target area. The strategy previously agreed on has the primacy.

What makes SOF suitable for pre-emptive operations? Dr. Rasmussen summarized the advantages of SOF.

*"Special forces are special because they are not part of the bureaucratic organization of the armed forces as such. Symbolic of this is the way they prefer to choose their own weapons. Their own fighting does not depend on the operation of weapons systems in concert with other soldiers, such as guns and tanks. They fight on their own initiative – in other words, they embrace the risks of war. Where other soldiers place their lives at the mercy of the system and thus fear risks, the special forces embrace risks because they can still choose to fight, and find death, on their own terms."*[175]

---

[1]1 James S. Corum, *Bad Strategies: How Major Powers Fail in Counterinsurgency* (Minneapolis: Zenith Press, 2008), 181-185.

[2] Martin Shaw, *The New Western Way of War* (Cambridge: Polity Press, 2005), 76, 77.

[3] NATO, *Strategic Concept for the Defence and Security* of *The Members of the North Atlantic Treaty Organisation*, nato.int, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf (accessed 7 March 2011), *6*.

[4] NATO, *AJP 3.4*, *Non-Article 5 Crisis Response Operations*, 2005, p 1-1.

[5] NATO, *The North Atlantic Treaty*, nato.int, http://www.nato.int/cps/en/natolive/official_texts_17120.htm (accessed 23 February 2010), Article 5.

[6] NATO's Strategic Commanders, *Strategic Vision: The Military Challenge,* aco.nato.int,

http://www.act.nato.int/media/Multiple_Futures/StrategicVision2004.pdf (accessed 23 December 2009), 4, 10.

[7] NATO, *AJP 3.4.4*, *Allied Joint Publication for Counterinsurgency*, February 2011, 5-128.

[8] Robert I. Rotberg, "Failed States, Collapsed States, Weak States: Causes and Indicators" in *State Failure and State Weakness in the Time of Terror*, ed. Robert I. Rotberg (Washington Brookings Institution Press, 2003), 1, 22.

[9] Allard Wagemaker, "Twisting arms or flexing muscles?" in *The Comprehensive Approach. Challenges and Prospects,* ed. Hansen Splidsboel Flemming (Copenhagen: Royal Danish Defence College Publishing House, 2009), 23, 26. Fukuyma's model distinguishes three distinct phases: in first phase, outside powers provide the short-term stability. The goal is to (re-)build state authority. That phase is critical and military has an important role in it. In second and third phases, development agencies take the lead. In second phase civilian agencies assist the systems directly, in third more indirectly.

[10] NATO, *NATO's New Strategic Concept*, nato.int, http://www.nato.int/strategic-concept/index.html (accessed 12 April 2011).

[11] NATO, *Strategic Concept for the Defence and Security* of *The Members of the North Atlantic Treaty Organisation*, nato.int, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf (accessed 7 March 2011), 6.

[12] David B. Carment, "Preventing State Failure" in *When States Fail. Causes and Consequences,* ed. Robert I. Rotberg (Oxford: Princeton Press, 2004), 145.

[13] Jeanne A. K. Hey, "Introducing Small state Foreign Policy" in *Small States in World Politics. Explaining Foreign Policy Behavior, ed.* Jeanne A. K. Hey (London: Lynne Rienner Publishers, 2003), 4.

[14] Col Joseph D. Celeski, *Operationalizing COIN* (Hurlburt Field, FL: Joint Special Operations University Press, 2005), 33. Colonel Celeski mentions a concept of *preventative counterinsurgency*. He recognizes the need for early improvement of struggling or failed states in the social and economic conditions. However, the rest of his monograph is focusing on ongoing campaigns, and David B. Carment, "Preventing State Failure" in *When States Fail. Causes and Consequences,* ed. Robert I. Rotberg (Oxford: Princeton Press, 2004), 144, 145. Professor Carment stays very broad in his suggestions. He focuses mainly on models to identify signs of failure not the actual action to prevent the collapse of a state.

[15] Col Gintautas Zenkevicius, "Post-Conflict Reconstruction. Rebuilding Afghanistan – Is That Post-conflict Reconstruction? *"Baltic Security & Defence Review*, Volume 9, 2007, 28.

[16] Imperial and Royal Austro-Hungarian Marine Corps. *FMFM-1A, Fourth Generation War*, globalguerillas.typepad.com, http://globalguerrillas.typepad.com/files/4gwmanuals/FMFM-1A%20%20.pdf (accessed 23 December 2009), 4.

[17] U.S. Marine Corps, *MDCP 1*, *Warfighting g* (U.S. Government Printing Office, 1997), 3.
[18] Department of the Army, *FM 3-24, Counterinsurgency*, December 2006, 1-27.
[19] Carl von Clausewitz, *On War*. Edited and translated Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1989), 595, 596.
[20] U.S. Marine Corps, *MDCP 1*, *Warfighting* (U.S. Government Printing Office, 1997), 15, 16.
[21] William S. Lind, "Critics of the Fourth Generation," lewrockwell.com, http://www.lewrockwell.com/lind/lind85.html (accessed 31 January 2010).
[22] Frank Hoffman, "4GW as a Model of Future Conflict, "panel presentation in Boyd 2007 Conference, 13 July 2007, Small Wars Journal Blog, http://smallwarsjournal.com/blog/2007/07/4gw-as-a-model-of-future-confl/ (accessed 12 April 2011).
[23] Col Thomas X. Hammes, *The Sling and the Stone: on war in the 21st century* (St. Paul: Zenith, 2004).
[24] Ibid. 208.
[25] William S. Lind, "The Sling and The Stone," lewrockwell.com, http://www.lewrockwell.com/lind/lind45.html (accessed 6 March 2010).
[26] William S. Lind, "Critics of the Fourth Generation," lewrockwell.com, http://www.lewrockwell.com/lind/lind85.html (accessed 31 January 2010).
[27] Imperial and Royal Austro-Hungarian Marine Corps. *FMFM-1A, Fourth Generation War*, globalguerillas.typepad.com, http://globalguerrillas.typepad.com/files/4gwmanuals/FMFM-1A%20%20.pdf (accessed 23 December 2009), 86.
[28] Lt Col David Kilcullen, *Counterinsurgency* (London: Hurst & Company, 2010), 9.
[29] Col Frans P. B. Osinga, *John Boyd and strategic theory in the postmodern era*, au.af.mil, http://www.au.af.mil/au/awc/awcgate/boyd/osinga_boyd_postmod_copyright2007.pdf, 9 (accessed 11 March 2011) and William S. Lind et al., "The Changing Face of War: Into the Fourth Generation" in *Marine Corps Gazette*, October 1989.
[30] William S. Lind et al., "The Changing Face of War: Into the Fourth Generation" in *Marine Corps Gazette*, October 1989.
[31] Col Frans P. B. Osinga, *John Boyd and strategic theory in the postmodern era*, au.af.mil, http://www.au.af.mil/au/awc/awcgate/boyd/osinga_boyd_postmod_copyright2007.pdf, 10, 11 (accessed 11 March 2011).
[32] Col Joseph D. Celeski, *Operationalizing COIN* (Hurlburt Field, FL: Joint Special Operations University Press, 2005), 20. Colonel Celeski even summons modern resistance under type of terror-guerrilla (terrorist-guerrilla cooperation) insurgency.
[33] Department of the Army, *FM 3-24, Counterinsurgency*, December 2006, ix.
[34] U.S. Marine Corps, *MDCP 1*, *Warfighting* (U.S. Government Printing Office, 1997), 13.
[35] Col Qiao Liang and Col Wang Xiangsui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, 1999).
[36] Ibid. 38.

[37] Col. Frans P. B. Osinga, *Science, Strategy and War: The Strategic Theory of John Boyd* (New York: Routledge, 2007), 132.
[38] Lt Col David Kilcullen, *Counterinsurgency Redux*, smallwarsjournal.com, http://smallwarsjournal.com/documents/kilcullen1.pdf (accessed 12 January 2010), 3.
[39] Lt Col David Kilcullen, *The Accidental Guerrilla*, *Fighting Small Wars in the Midst of a Big On.* (NY: Oxford University Press, 2009).
[40] Ibid. 10.
[41] Camille Tawil, *The Other Face of Al-Qaeda*, quillamfoundation.org, http://www.quilliamfoundation.org/images/stories/pdfs/the-other-face-of-al-qaeda.pdf?dm_i=JI3,AZ98,3031IN,UGW9,1 (accessed 11 March 2011), 7, 8.
[42] Mikkel V. Rasmussen, *The Risk Society at War. Terror, Technology and Strategy in the Twenty-First Century* (NY: Cambridge University Press, 2006).
[43] Ibid. 165.
[44] Ibid.
[45] Egdunas Racius, "The 'Cultural Awareness' Factor in the Activities of the Lithuanian PRT in Afghanistan" in *Baltic Security & Defence Review*, Volume 9, 2007, 60.
[46] Lt Col David Kilcullen, *The Accidental Guerrilla*, *Fighting Small Wars in the Midst of a Big On.* (NY: Oxford University Press, 2009), 263.
[47] Ibid. 28-38.
[48] Thomas Rid and Marc Hecker, *War 2.0. Irregular Warfare in the Information Age* (London: Praeger Security International, 2009), 128.
[49] Kilcullen, *The Accidental Guerrilla*, 9, 10.
[50] Col Qiao Liang and Col Wang Xiangsui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, 1999), 43.
[51] Col Thomas X. Hammes, "Fourth Generation Warfare Evolves, Fifth Emerges" in *Military Review*, June-July 2007, 22.
[52] Lt Col David Kilcullen, *The Accidental Guerrilla*, 5, 6.
[53] Supreme Allied Commander Transformation, *Multiple Futures Project – Navigating towards 2030, Final Report,* aco.nato.int, http://www.act.nato.int/MultipleFutures/20090503_MFP_finalrep.pdf (accessed 20 December 2009), 33, 55.
[54] U.S. National Intelligence Council, *Global Trends 2025: A Transformed World*, dni.gov http://www.dni.gov/nic/PDF_2025/2025_Global_Trends_Final_Report.pdf (accessed 20 December 2009), 71.
[55] U.S. Marine Corps, *MDCP 1*, *Warfighting* (U.S. Government Printing Office, 1997), 7-9.
[56] Col Qiao Liang and Col Wang Xiangsui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, 1999), 12.

[57] Supreme Allied Commander Transformation, *Future Security Environment,* aco.nato.int, http://www.act.nato.int/media/Multiple_Futures/ACTFutureSecurityEnvironmentFirstEdition.pdf (accessed 20 December 2009), 38.
[58] Supreme Allied Commander Transformation, *Multiple Futures Project – Navigating towards 2030, Final Report,* aco.nato.int, http://www.act.nato.int/MultipleFutures/20090503_MFP_finalrep.pdf (accessed 20 December 2009), 55.
[59] NATO, *Strategic Concept for the Defence and Security* of *The Members of the North Atlantic Treaty Organisation*, nato.int, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf (accessed 7 March 2011), 6.
[60] Martin Shaw, *The new Western way of War* (Cambridge: Polity Press, 2005), 76, 77.
[61] Lt Col David Kilcullen, *The Accidental Guerrilla*, *Fighting Small Wars in the Midst of a Big On.* (NY: Oxford University Press, 2009), 25.
[62] John F. Kerry, et al., *Tora Bora Revisited: How we failed to get Bin Laden and why it matters today*, foreign.senate.gov, http://foreign.senate.gov/imo/media/doc/Tora_Bora_Report.pdf (accessed 20 February 2010), 20.
[63] Supreme Allied Commander Transformation, *Future Security Environment,* aco.nato.int, http://www.act.nato.int/media/Multiple_Futures/ACTFutureSecurityEnvironmentFirstEdition.pdf (accessed 20 December 2009), 39.
[64] Robert Martinage, *Special Operation Forces. Future challenges and Opportunities,* csbaonline.org, http://www.csbaonline.org/4Publications/PubLibrary/R.20081117.Special_Operation_/R.20081117.Special_Operation_.pdf (accessed 15 September 2009), 75.
[65] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org, http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011), 101.
[66] Department of the Army, *FM 3-05.20, Special Forces Operations*, June 2001, 2-1, 2-2, 2-11, 2-12.
[67] Maj. Jim Gant, *A Strategy for Success in Afghanistan*, *One Tribe at the Time*, stevenpressfield.com,http://www.stevenpressfield.com/wp-content/uploads/2009/10/one_tribe_at_a_time_ed2.pdf (accessed 21 December 2009), 25-27.
[68] Lt Col Kalev Sepp, *Prepared Statement before House Subcommittee on National Security, Emerging Threats, and International Relations*, globalsecurity.org, http://www.globalsecurity.org/military/library/congress/2005_hr/050314-sepp.pdf (accessed 11 March 2011), 1, 2.
[69] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org,

http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011), 120.

[70] Jacob W. Kipp and Lt Col Lester W. Grau, "Military Theory, Strategy, and Praxis" in *Military Review*, March-April 2011, 17.

[71] William S. Lind, "Understanding Fourth Generation War," antiwar.com, http://www.antiwar.com/lind/?articleid=1702 (accessed 31 January 2010).

[72] John F. Kerry, "Testing Afghanistan Assumptions. The lesson of Vietnam is don't commit troops without a clear strategy" in *The Wall Street Journal,* 27 September 2009, wsj.com, http://online.wsj.com/article/SB10001424052748704471504574438660617984826.html (accessed 25 December 2009).

[73] Jeswant Singh, "The March of Folly in Afghanistan," project-syndicate.org, http://www.project-syndicate.org/commentary/jsingh5/English (accessed 13 August 2010).

[74] Egdunas Racius, "The 'Cultural Awareness' Factor in the Activities of the Lithuanian PRT in Afghanistan" in *Baltic Security & Defence Review*, Volume 9, 2007, 61, 62.

[75] Mikkel V. Rasmussen, *The Risk Society at War. Terror, Technology and Strategy in the Twenty-First Century* (NY: Cambridge University Press, 2006), 166-168.

[76] Peter C. Choharis and Lt Col James A. Gavrilis, "Counterinsurgency 3.0," *Parameters*, Spring 2010, carlise.army.mil, http://www.carlisle.army.mil/usawc/parameters/Articles/2010spring/40-1-2010_choharisAndGavrilis.pdf (accessed 6 March 2011), 38.

[77] Lt Col David Kilcullen, *The Accidental Guerrilla*, 21.

[78] Montgomery McFate, "The Military Utility of Understanding Adversary Culture" in *Joint Forces Quarterly*, No. 38 Summer 2005, 43, 44.

[79] Maj Jim Gant, *A Strategy for Success in Afghanistan*, *One Tribe at the Time*, stevenpressfield.com, http://www.stevenpressfield.com/wp-content/uploads/2009/10/one_tribe_at_a_time_ed2.pdf (accessed 21 December 2009), 13.

[80] *Al Qaeda manual*, fas.org, http://www.fas.org/irp/world/para/aqmanual.pdf (accessed 17 February 2010).

[81] Thomas Rid and Marc Hecker, *War 2.0. Irregular Warfare in the Information Age* (London: Praeger Security International, 2009), 3.

[82] Edward N. Luttwak, *Strategy: the logic of war and peace*, revised and enlarged revision (London: The Belknap Press of Harvard University Press, 2003), 76.

[83] Montgomery McFate, "Anthropology and Counterinsurgency: The Strange Story of their Curious Relationship," army.mil, http://www.army.mil/professionalwriting/volumes/volume3/august_2005/7_05_2.html (accessed 21 December 2009).

[84] Emma Graham-Harrison, "Analysis: Why the military plays down vital Afghan battle," Reuters 31 October 2010, reuters.com, http://www.reuters.com/article/idUSTRE69U0EI20101031?pageNumber=1 (accessed 1 March 2011).
[85] Gen Stanley A. McChrystal, *ISAF Commander's Counterinsurgency Guidance*, nato.int, http://www.nato.int/isaf/docu/official_texts/counterinsurgency_guidance.pdf (accessed 29 December 2009), 2, 3.
[86] Lt Col Paul Darling and Lt Justin Lawlor, "Updating close-air support. New doctrine and aircraft are needed for COIN warfare," armedforcesjournal.com, http://www.armedforcesjournal.com/2010/11/5009090 (accessed 2 March 2011).
[87] Department of the Army, *FMI 3-24.2, Tactics in Counterinsurgency*, March 2009, 1-5.
[88] Ted R. Gurr, "Terrorism in Democracies: When It Occurs, Why It Fails" in *The New Global Terrorism. Characteristics, Causes, Controls,* ed. Charles W. Jr. Kegly (Upper Saddle River, NJ: Pearson Education, Inc., 2003), 215.
[89] Steven Metz, *Rethinking Insurgency*, strategicstudiesinstitute.army.mil, http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB790.pdf (accessed 22 December 2009), 45, 46.
[90] James S. Corum and Wray R. Johnson, *Airpower in Small Wars. Fighting Insurgents and Terrorists* (Kansas: University Press, 2003), 27.
[91] David Kilcullen, *The Accidental Guerrilla*, 114, 286, 289.
[92] Peter C. Choharis and Lt Col James A. Gavrilis, "Counterinsurgency 3.0," *Parameters*, Spring 2010, carlise.army.mil, http://www.carlisle.army.mil/usawc/parameters/Articles/2010spring/40-1-2010_choharisAndGavrilis.pdf (accessed 6 March 2011), 41.
[93] Steven Metz, *Rethinking Insurgency*, strategicstudiesinstitute.army.mil, http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB790.pdf (accessed 22 December 2009), 53, and Miemie W. Byrd, "Combating Terrorism. A Socio-Economic Strategy," *Joint Force Quarterly*, Issue 41, 2d Quarter 2006, 16.
[94] NATO, *AJP 3.4.4*, *Allied Joint Publication for Counterinsurgency*, February 2011, 5-15 – 5-17.
[95] Col Joseph D. Celeski, *Operationalizing COIN* (Hurlburt Field, FL: Joint Special Operations University Press, 2005), 40.
[96] Ibid., 31, 74, 95.
[97] Dalia Mogahed, *Islam and Democracy*, media.gallup.com, http://media.gallup.com/MuslimWestFacts/PDF/GALLUPMUSLIMSTUDIESIslamandDemocracy030607rev.pdf and Tom A. Peter, "Women's rights in Afghanistan lose steam," *The Christian Science Monitor* 2011, csmonitor.com, http://www.csmonitor.com/World/Asia-South-Central/2011/0308/Women-s-rights-in-Afghanistan-lose-steam (accessed 13 April 2011).
[98] Mikkel V. Rasmussen, *The Risk Society at War. Terror, Technology and Strategy in the Twenty-First Century* (NY: Cambridge University Press, 2006), 166-168.

[99] Col Robert M. Cassidy, "Counterinsurgency and Military Culture: State Regulars versus Non-State Irregulars," in *Baltic Security & Defence Review* Volume 10, 2008, 68-70.
[100] Miemie W. Byrd, "Combating Terrorism. A Socio-Economic Strategy," *Joint Force Quarterly*, Issue 41, 2d Quarter 2006, 16.
[101] Jean-Jacques de Dardel, "Whither the Euro-Atlantic Partnership? Partnership and NATO's New Strategic Concept," *Geneva Papers* 10 (Geneva Centre for Security Policy, 2009). Dr. Jean-Jacques de Dardel, the Ambassador of Switzerland to NATO, is criticizing NATO on attitude and misunderstanding the added value of non-NATO partners' in common strategic goals.
[102] Paul Cornish, *EU and NATO: Co-operation or Competition?,* chattamhouse.org, http://www.chathamhouse.org.uk/files/3379_nato_eu.pdf (accessed 2 January 2011), 4.
[103] *NATO*, Active Engagement, Modern Defence, *nato.int,* http://www.nato.int/cps/en/natolive/official_texts_68580.htm, (accessed 9 March 2011).
[104] Carmen Gebhard, "The Crisis Management and Planning Directorate Recalibrating ESDP Planning and Conduct Capacities" in *CFSP Forum,* Volume 7 no. 4, 2009, carmengebhard.com, http://carmengebhard.com/CFSP_Forum_vol_7_no_4_Gebhard.pdf (accessed 2 January 2011), 13.
[105] Stephanie Blair, "Towards Integration? Unifying Military and Civilian ESDP Operations," *European Security Review* no 44, 2009, isis-europe.org, http://www.isis-europe.org/pdf/2009_artrel_272_esr44-civmil-integration.pdf (accessed 3 March 2010), 1-4.
[106] Lt Col David Kilcullen, *The Accidental Guerrilla*, *Fighting Small Wars in the Midst of a Big On.* (NY: Oxford University Press, 2009), 15, 16.
[107] David B. Carment, "Preventing State Failure," in *When States Fail. Causes and Consequences,* ed. Robert I. Rotberg (Oxford: Princeton Press, 2004), 141.
[108] NATO's Strategic Commanders, *Strategic Vision: The Military Challenge,* aco.nato.int, http://www.act.nato.int/media/Multiple_Futures/StrategicVision2004.pdf (accessed 23 December 2009), iii, iiii, 7.
[109] Miemie W. Byrd, "Combating Terrorism. A Socio-Economic Strategy," *Joint Force Quarterly*, Issue 41, 2d Quarter 2006, 17.
[110] NATO, *AJP 3.4*, *Non-Article 5 Crisis Response Operations*, 2005, 2-7, and Allard Wagemaker, "Twisting arms or flexing muscles?" in *The Comprehensive Approach. Challenges and Prospects,* ed. Hansen Splidsboel Flemming (Copenhagen: Royal Danish Defence College Publishing House, 2009), 23.
[111]USAID Afghanistan, "Provincial Reconstruction Teams," afghanistan.usaid.gov, http://afghanistan.usaid.gov/en/Page.PRT.aspx (accessed 20 January 2011).

[112] Nima Abbaszadeh, et al., *Provincial Reconstruction Teams: Lessons and Recommendations*,Princeton.edu, http://wws.princeton.edu/research/pwreports_f07/wws591b.pdf (accessed 11 March 2011), 16, 17.
[113] Lawrence Vasquez, *Time to Reevaluate the Role of Provincial Reconstruction Teams in Afghanistan?,*brookings.edu, http://www.brookings.edu/opinions/2010/1104_afghanistan_vasquez.aspx (accessed 8 March 2011).
[114] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org, http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011).
[115] Ibid., 108.
[116] Lt Col Kalev I. Sepp, *Best Practices in Counterinsurgency*, au.af.mil, http://www.au.af.mil/au/awc/awcgate/milreview/sepp.pdf (accessed 11 March 2011), 9. See also David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org, http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011)
[117] Dale Andrade and James H. Willbanks, *CORDS/Phoenix Counterinsurgency Lessons from Vietnam for the Future*. Smallwarsjournal.com, http://smallwarsjournal.com/documents/milreviewmarch2.pdf (accessed 12 February 2011), 15, 16, 18, 19, 21.
[118] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org, http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011), 106-108.
[119] Col Thomas X. Hammes, *The Sling and the Stone: on war in the 21st century* (St. Paul: Zenith, 2004), 214.
[120] Billy K. Rios, "Sun Tzu was a Hacker: An Examination of the Tactics and Operations form a Real World Cyber Attack" in *The Virtual Battlefield: Perspectives on Cyber Warfare*, eds. Christian Czosseck and Kenneth Geers, (Amsterdam: IOS Press BV, 2009), 153, 154.
[121] Steven Metz, *Rethinking Insurgency*, strategicstudiesinstitute.army.mil, http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB790.pdf (accessed 22 December 2009), 11.
[122] Cooperative Cyber Defence Centre of Excellence webpage, ccdcoe.org, http://www.ccdcoe.org/76.html (accessed 5 March 2010).
[123] *Estonian Information Society Strategy 2013*, riso.ee, http://www.riso.ee/en/system/files/Estonian%20Information%20Society%20Strategy%202013.pdf (accessed 11 March 2011), 7.
[124] Thomas Rid and Marc Hecker, *War 2.0. Irregular Warfare in the Information Age* (London: Praeger Security International, 2009), 137.

[125] Lt Col David Kilcullen, 9, 10.
[126] Col Thomas X. Hammes, "Fourth Generation Warfare Evolves, Fifth Emerges" in *Military Review*, June-July 2007, 15.
[127] In 2006 author had a discussion with a local doctor in Afghanistan. He was skeptical to ISAF approach to the current problem. He suggested that all we need to do is "spray" the country with Satellite TV assets and in some time people start identifying themselves with the West – that could be the best influence the West can get.
[128] J. P. I. A. G. Charvat, "Cyber Terrorism: A New Dimension in Battlespace" in *The Virtual Battlefield: Perspectives on Cyber Warfare*, eds. Christian Czosseck and Kenneth Geers (Amsterdam: IOS Press, 2009), 77-87.
[129] Billy K. Rios, "Sun Tzu was a Hacker: An Examination of the Tactics and Operations form a Real World Cyber Attack" in *The Virtual Battlefield: Perspectives on Cyber Warfare*, eds. Christian Czosseck and Kenneth Geers, (Amsterdam: IOS Press BV, 2009), 144, 145.
[130] *Asus unveils ultra-low-cost Linux laptop*, linuxfordevices.com, http://www.linuxfordevices.com/c/a/News/Asus-unveils-ultralowcost-Linux-laptop/ (accessed 8 March 2011).
[131] Mobile internet network capabilities introduced in Estonia by EMT Ltd., emt.ee, https://www.emt.ee/en/internet (accessed 8 March 2011).
[132] Thomas Rid and Marc Hecker, *War 2.0. Irregular Warfare in the Information Age*, 172.
[133] Shahid Afsar, Chris Samples and Thomas Wood, "Taliban: An Organizational Analysis," in *Military Review* May-June 2008, 61.
[134] UNICEF, *Afghanistan statistics*, unicef.org, http://www.unicef.org/infobycountry/afghanistan_statistics.html (accessed 7 March 2011).
[135] Central Intelligence Agency, *The World Factbook*, *Afghanistan*, cia.gov, https://www.cia.gov/library/publications/the-world-factbook/geos/af.html (accessed 7 May 2011)
[136] Rubin Shanker, "Quest to Neutralize Afghan Militants Is Showing Glimpses of Success, NATO Says," *The New York Times* 28 June 2010, nytimes.com, http://www.nytimes.com/2010/06/29/world/asia/29military.html?_r=1 (accessed 8 March 2011).
[137] Gen André Beaufre, *An Introduction to Strategy* (London: Faber and Faber, 1965), 30.
[138] David B. Carment, "Preventing State Failure," in *When States Fail. Causes and Consequences,* ed. Robert I. Rotberg (Oxford: Princeton Press, 2004), 138.
[139] Col. Qiao Liang and Col. Wang Xiangsui, *Unrestricted Warfare* (Beijing: PLA Literature and Arts Publishing House, 1999), 214. Multidimensional coordination – coordinating and allocating all the forces which can be mobilized in the military and non-military spheres covering an objective.

[140] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org, http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011), 120.
[141] Robert Martinage, *Special Operation Forces. Future challenges and Opportunities,* csbaonline.org, http://www.csbaonline.org/4Publications/PubLibrary/R.20081117.Special_Operation_/R.20081117.Special_Operation_.pdf (accessed 15 September 2009), 7, and Col Joseph D. Celeski, *Operationalizing COIN* (Hurlburt Field, FL: Joint Special Operations University Press, 2005), 9.
[142] Author has participated personally in that symposium on 3-5 June 2008 in Deauville, France.
[143] NATO, *AAP-6*, *NATO Glossary of Terms and Definitions*, nato.int, http://www.nato.int/docu/stanag/aap006/aap-6-2010.pdf (accessed 11 March 2011), 2-S-9.
[144] U.S. Joint Staff, *JP 3-05, Doctrine for Joint Special Operations,* December 2003, I-4.
[145] Gen Peter J. Schoomaker, "Special Operation Forces. The way ahead," in *Force of Choice. Perspectives on special operations,* eds. Bernd Horn et al. (Montreal and Kingston: McGill-Queen's University Press, 2004), 162, 163.
[146] NSCC, *The NATO SOF Study*, nscc.bices.org, http://www.nscc.bices.org/GetFile/?File_ID=29 (accessed 3 March 2011), 10.
[147] NATO, *AJP 3.5, Allied Joint Doctrine for Special Operations*, Ratification Draft, 2008, 1-1.
[148] NSCC, *The NATO SOF Study*, nscc.bices.org, http://www.nscc.bices.org/GetFile/?File_ID=29 (accessed 3 March 2011), 2.
[149] NATO, *Riga Summit Declaration*, nato.int, http://www.nato.int/docu/pr/2006/p06-150e.htm, (accessed 3 January 2010).
[150] NSHQ webpage, *Overview*, nscc.bices.org, http://www.nscc.bices.org/page/overview/, (accessed 4 March 2011).
[151] NSHQ webpage, *Mission*, nscc.bices.org, http://www.nscc.bices.org/page/mission/, (accessed 4 March 2011).
[152] Ibid.
[153] NSHQ, *SO/LIC Symposium slideshow*, 9, Dtic.mil, http://www.dtic.mil/ndia/2009SOLIC/1DeZelicourt.pdf, (accessed 3 January 2010).
[154] NATO, *AJP 3.5, Allied Joint Doctrine for Special Operations*, Ratification Draft, 2008, 2-1 – 2-3.
[155] Gareth Porter, "Doubling of SOF Night Raids Backfired in Kandahar," Global Geopolitics & Political Economy /IPS, Globalgeopolitics.net, http://globalgeopolitics.net/wordpress/2010/09/15/doubling-of-sof-night-raids-backfired-in-kandahar/, (accessed 8 March 2011).
[156] David C. Gompert and John IV Gordon, *War by Other Means: Building Complete and Balanced COIN Capabilities*, RAND 2008, rand.org,

http://www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG595.2.pdf (accessed 7 March 2011), 291.

[157] NATO, *AJP 3.5, Allied Joint Doctrine for Special Operations*, Ratification Draft, 2008, 1-5, 1-6.

[158] U.S. Joint Staff, *JP 3-05, Doctrine for Joint Special Operations,* December 2003, II-4.

[159] Col John M. Collins, *U.S. Special Operations - Personal Opinions*, Smallwarsjournal.com,http://smallwarsjournal.com/blog/journal/docs-temp/148-collins.pdf (accessed 23 December 2009), 3.

[160] Sean D. Naylor, "Admiral Olsen adds "lost" 5th SOF Truth to doctrine," navyseals.com,http://www.navyseals.com/adm-olsen-adds-lost-5th-sof-truth-doctrine (accessed 23 December 2009).

[161] Miemie W. Byrd, "Combating Terrorism. A Socio-Economic Strategy," *Joint Force Quarterly*, Issue 41, 2d Quarter 2006, 19.

[162] Lt Col Scott Moore, "Special Operations Forces. Visioning for the Future" in *Force of Choice. Perspectives on special operations*, eds. Bernd Horn, et al. (Montreal and Kingston: McGill-Queen's University Press, 2004), 189.

[163] Gen Peter J. Schoomaker, "Special Operation Forces. The way ahead," in *Force of Choice. Perspectives on special operations,* eds. Bernd Horn et al. (Montreal and Kingston: McGill-Queen's University Press, 2004), 167.

[164] NATO, *Strategic Concept for the Defence and Security* of *The Members of the North Atlantic Treaty Organisation*, nato.int, http://www.nato.int/lisbon2010/strategic-concept-2010-eng.pdf (accessed 7 March 2011), 4.

[165] Robert Martinage, *Special Operation Forces. Future challenges and Opportunities,* csbaonline.org, http://www.csbaonline.org/4Publications/PubLibrary/R.20081117.Special_Operation_/R.20081117.Special_Operation_.pdf (accessed 15 September 2009), 36.

[166] Lt Col Kilcullen's remarks at the NATO SOF Symposium, 3-5 June 2008 in Deauville, France.

[167] Ibid.

[168] Ibid.

[169] Col Joseph D. Celeski, *Operationalizing COIN* (Hurlburt Field, FL: Joint Special Operations University Press, 2005), 83. Col Celeski appoints the need of additional skills as law enforcement, intelligence agent, and humanitarian areas; as well he stresses the need of education on "human terrain".

[170] Kilcullen's remarks at the NATO SOF Symposium, 3-5 June 2008 in Deauville, France.

[171] Ibid.

[172] Ibid.

[173] Supreme Allied Commander Transformation, *Multiple Futures Project – Navigating towards 2030, Findings and Recommendations*, aco.nato.int, http://www.act.nato.int/media/Multiple_Futures/20090503_MFP_findings.pdf (accessed 20 December 2009),16-17.

[174] *Amici Curiae* Special Forces Association and U.S. Army and Ranger Association, *Brief on Appeal in the United States Court of Appeals for the District of Columbia Circuit in support of Appellants*, michaelyon-online.com, http://www.michaelyon-online.com/images/pdf/maqaleh_%20amicus_as_filed.pdf (accessed 10 February 2011), 25, 26.

[175] Mikkel V. Rasmussen, *The Risk Society at War. Terror, Technology and Strategy in the Twenty-First Century* (NY: Cambridge University Press, 2006), 180.

# The Military and the Management Movement

*By Eric A. Sibul PhD, Baltic Defence College*

This article will examine the influence of the management movement and the military in order to understand the interaction of the American armed forces the management movement from its beginnings to contemporary time. The management movement, for the better and sometimes for the worse, has greatly influenced the *modus operandi* of the US modern military and those of allied nations. Yet interaction with the military has been a two-way street as ideas and trends in military theory, military leadership and strategic and operational doctrine have also had their influence on the management movement. This article will show that the adaptation of business concepts to military from the private sector is nothing new. Indeed, this has been a long time and well-established practice. The article will also look where concepts taken from civilian management have been useful and were they have been detrimental for the military. By examining the history of interaction between the management movement and the military it may be possible to derive insights on the utility and limitations of employing civilian management concepts in the contemporary armed services and military support organizations.

A historical analysis of the management movement and the concepts it generated has some utility for the newer NATO nations and partner nations that are today in the process of developing and modernizing their defence structures and attempting to implement what they see as modern Western administrative, managerial and leadership practices. Unfortunately, all too often the advice from local management experts on defence organizational and administrative modernization and reform is based on misunderstood American management concepts from the late nineteenth - early twentieth centuries.[1]

Management concepts for the purpose of this essay refer to ideas and theoretical constructs within the field of management. The management movement, again for the purpose of this essay, refers to the development of the field of knowledge which examines and provides concepts for the systematic internal organization and operation of private enterprises and public entities which had its genesis in the 1830s and 1840s and continues to contemporary times.[2] In essence, the management movement is the continual historical development of the field of management.

Although many believe that the interaction of the field of management with the military is something of a recent occurrence – in fact it is not. From the very beginnings of the management movement in the first half of the nineteenth century the military has had extensive interaction with it. Indeed, military practices actually helped shape the initial management concepts. The interest of the military was clearly understandable in the early 19th century as transportation technologies were rapidly changing military movement. Furthermore, armies were becoming larger and more difficult to sustain. By the same token, with changing technologies and new industries rising commercial organizations were becoming large and complex and more difficult to effectively direct. The military was the only place at the time where there were leaders experienced in guiding large organizations involved in complex operations. The management movement was born out of the need to deal with the size and complexity of these new commercial organizations.

## The Beginnings of the Management Movement

The management movement had its beginning with the industrial revolution in the early nineteenth century. Steam power was central to the industrial revolution as it allowed for the development of factories capable of mass production and dramatically increased the speed and capacity of water and overland transport. The steam railway represented this dramatic revolution in land transport and it is from there the management movement had its birth. From the beginning of the steam era there was also military involvement with railways as their great military utility was quickly demonstrated. In 1830, at the opening of the Liverpool & Manchester Railway less than a year after the first trial trip of Robert Stephenson's steam locomotive *Rocket*, a regiment of British soldiers was moved thirty four miles (54 km) in two hours, which would otherwise have required a two day march. On 30 June 1831, the United States made first use of railways in military operations as one hundred volunteers of the Maryland State Militia under Brigadier General George H. Steward were dispatched from Baltimore over the Baltimore and Ohio (B&O) railroad to quell a riot of railway track construction labourers at Sykes Mills, Maryland, twenty nine miles (46 km) away. [3]

The B&O, chartered in 1827, was America's first common-carrier steam-powered railway. Since the only engineering school in United States was at the Military Academy at West Point, the army had helped survey and

construct the right of way.[4] US Army officers subsequently became involved in surveying the routes and supervising the construction of numerous other railways. Operations and management of early railways in the United States were also influenced by military officers. In the mid-1830s Captain William G. McNeill and Lieutenant George W. Whistler developed operating rules for several railways in New England based on army regulations. The operating rules were basically reforms meant to bring safety and efficiency to operating organizations. While early American railway organizations were not directly based on a military model, they were strongly influenced by British railway managerial practice which was based on a military pattern.[5] For a short period there was a group of US Army engineers who both held military commissions and were involved in the construction, operation, and development of civilian railways, however they came into conflict with more fortress oriented military engineers, who focused their energies on the construction of coastal fortresses. Military railways were portrayed as an alternative to fortresses as troops could be rushed to the coastal area if a foreign invasion threatened. In the longer term, the more established military engineers prevailed politically and the army eschewed involvement with the railways before the American Civil War. As a result, when the Civil War began in 1861 both the Federal and the Confederate armies were ill prepared to operate and construct railways in a theater of operations and work with civilian railway companies at the strategic level.[6] Such expertise would have to come from the business sector to the military.

## Daniel Craig McCallum

In the years between 1827 and 1861 railways were emerging as American's first "big business." By the 1850s major railways were emerging which were over 500 miles (800 km) long and with thousands of employees. Modern management concepts had their beginning as ways had to be found to operate these entire new and large and complex organizations. Daniel Craig McCallum was faced with this problem. McCallum was self-taught architect and civil engineer and in 1854 he became the general superintendent of the Erie Railroad. McCallum quickly gained reputation for being an innovator in railway operations and administration.[7] He adapted the electric telegraph to railway operations and management. Use of the telegraph in train dispatching made operations safer and more efficient and daily reports from train conductors and station agents covering all important matters of train operations, passenger movement

and freight handling tabulated in the statistical data provided minute and accurate information which management needed for complex business decisions.[8] In addition to the stimulating the flow of information, McCallum sharpened lines of authority and communications in the management structure of the Erie Railroad. McCallum outlined this overall concept of corporate management in 1855 in six general principles of administration:

1. A proper division of responsibilities

2. Sufficient power conferred to enable the same to be fully carried out, that such responsibilities be real in their character

3. Means of knowing if such responsibilities are faithfully executed

4. Great promptness in the report of all derelictions of duty that the evils may be corrected

5. Such information, to be obtained through a system of daily reports and checks that will not embarrass principal officers, nor lessen their influence with subordinates

6. The adoption of a system, as a whole, which will not only enable the General Superintendent to detect errors immediately, but will also point out the delinquent[9]

While the lines of authority and communications were sharpened in the management structure, many responsibilities and much decision making and were at same time decentralized to help the Erie Railroad cope better with its sprawling organization. One important organizational innovation adopted by the Erie Railroad, a year before McCallum's appointment as general superintendent, was splitting the Erie into five geographic divisions each about a hundred miles (160 kilometres) long. McCallum continued the decentralization process, working to perfect the organization. Each division operated virtually as a railway in itself, handling the essential functions of track and equipment maintenance and train operations.[10] Top management at the railroad's headquarters made overall decisions effecting the direction and welfare of the entire organization. McCallum's management innovations received wide attention in railway trade publications and the popular press. However, it was the Pennsylvania

Railroad that rapidly became the largest railway company in North America that further tested and rationalized McCallum's concepts of large scale administration. In 1857 president J. Edgar Thompson of the Pennsylvania adopted the organization and regulations McCallum developed for the Erie Railroad.[11]

As the army had eschewed involvement with railways due to internal political squabbles at the outbreak of the American Civil War the Army had to draw experienced railway men from civilian industries who were experienced in large scale administration. McCallum was appointed director of the United States Military Railroads (USMRR) on 4 February 1862, and eventually given the rank of general. Subordinate to USMRR was the Construction Corps which was in charge of the bridge and railway construction. Railroads were new to military logistics and their effective management under McCallum provided a decisive advantage to northern forces. McCallum applied his principles of management to the USMRR and the operational feats of the USMRR were remarkable. In September 1863 the defeat of Federal forces under General William Starke Rosecrans at Chickamauga endangered the Federal position in Eastern Tennessee. To secure the Federal position in Tennessee the USMRR transferred 23,000 men with artillery, supply wagons, ambulances and horses from Catlett's Station, Virginia to Chattanooga, Tennessee. The 1200 mile (1920 km) move was accomplished in seven days. The Construction Corps also accomplished remarkable feats. In the operational theatres they constructed 641 miles (1025 km) of track and 23 miles (36 km) of bridges as the northern forces advanced. Clearly northern forces benefited greatly from the effective utilization and management of railroad transportation.[12] On the other hand the South was never able to make as effective a use of railways due to material and managerial weaknesses in their railway system and to a lack of effective strategic management largely caused by the parochialism of the Confederate state governments.

According to George Edgar Turner,

> The projection of locomotives into warfare disproved the thesis that victory must come to the side with the bravest men. In a battle area which extended from the Atlantic coastline to the Mississippi River and beyond. The first year of the war made it apparent to some and should have made it obvious to all that, regardless of all other factors involved, mobility was of prime

> importance. It should have been equally clear to all that mobility of men, munitions and supplies depended in large measure on the railroads. More quickly than in the South, the North capitalized on the advantage it held in particular. Slow to recognize its railroad handicap, the Confederate government quarrelled with its railroad men and did nothing to lessen that handicap.[13]

For the American railway industry experiences of the USMRR served as a hothouse for development. McCallum built up an organization that was administratively sound and able to perform engineering and operational feats considered impossible. Great forward strides were made in methods of administration, engineering, construction, maintenance and equipment design. The USMRR also served to train men at all levels for post-war civilian railway service.[14] The USMRR served as a proving ground for McCallum's concepts of management and these concepts were adopted by the Pennsylvania Railroad, which carried the lion's share of the North's industrial and mobilization traffic during the war. This acceptance gave McCallum even more credence. In turn, these concepts were adopted by other large American railway lines as well as steel, retailing and manufacturing firms in the second half of the 19th century. They would also influence corporate management in Great Britain, Canada, Japan and elsewhere.[15]

For the US Army the introduction of modern management practices had little immediate effect as the army organization quickly shrank in size with the principal post-war task to maintain security on the Western frontier at small and scattered outposts. Procurement projects were small and transport contracted when necessary from private carriers.[16] Nevertheless, McCallum left a strong legacy of sensible thinking for military. From a military leadership perspective many of his ideas were eminently sensible. These ideas included the delegation of responsibilities to subordinates and giving them authority to carry the commander's intent, which is known today as mission command-- a key doctrinal tenet of NATO doctrine and within the national doctrines of most western armed forces. Mission command were also developed from the concept of *Auftragstaktik* that arose in the Prussian army during the mid – nineteenth century as McCallum's management concepts took root in the civilian sector. The empowerment element in McCallum's civil management ideas and in Prussian leadership military concepts have eclipsed more recent management and leadership trends and remain relevant to business and the

military in contemporary times.[17] In the same way, McCallum's idea of not embarrassing officials in public with negative reports so as to not reduce their influence with their peers and subordinates is in line the contemporary military leadership tenet of praising in public and counselling and correcting in private.[18] Another enduring policy for commercial and military organizations, astutely identified by McCallum, is the need to accurately determine the origin of problems within a chain of command and to correct them promptly. Even in a relatively small organization such as a military staff college it is often hard for the top leaders to detect the actual source of major problems as issues are obscured by turf fights, stove-piped information, cronyism and personal agendas. As McCallum observed, timely and accurate information is critical to keep an organization functioning effectively. McCallum developed information flow as the lifeblood of a large business and applied the same dynamics to military logistics long before it was fashionable in the late 1990s to speak of network-centrism in business and how such concepts could be applied in warfare to the benefit of the US Military.[19]

As McCallum's ideas took root in civilian industry another general officer, who had also been involved in commercial railway development, was undertaking reforms in the Prussian and then German armies. These reforms would radically alter modern military organizational and leadership concepts.

## Helmuth Von Moltke (the Elder)

In 1857, an obscure officer, Count Helmuth von Moltke, became the chief of the Prussian General Staff. By the end of his career he would be considered one greatest military geniuses of all time. Von Moltke originally gained a commission in the Danish army, but transferred to Prussian Army in 1821.[20] In the years between 1821 and 1857, in addition to his normal military duties, he translated poetry and historical works from English to German, wrote short stories and travel books, and served as an adviser on artillery and fortifications to the Ottoman Army. Like McCallum, von Moltke was involved with the development of commercial railways. As soon as he could afford it, von Moltke invested in the Berlin - Hamburg Railway and soon became a member of its administrative board. He studied every aspect of railroad construction and operation and even wrote a long study entitled, *Consideration in the Choice of Railway Routes*. While von Moltke perhaps had little unique influence on early trends in commercial

railway operations and management, his expertise allowed the Prussian Army to utilize railways to move and supply tens of thousands of thousands of troops during the 1866 Austro – Prussian War.[21]

In wake of the Austro – Prussian War, von Moltke wrote the equivalent of a modern lessons identified report for the King of Prussia in 1868. The two things he singled out for particular criticism was the lack of direction from above and the independent actions of the lower levels of command. Furthermore, he saw that subordinates often acted independently without understanding correctly how his overall concept towards how victory was to be achieved. Von Moltke concluded that it was vital to ensure that every level understood enough of the intentions of the higher command to enable the Prussian Army to meet its objectives. However, von Moltke also did not want to put the brakes on initiative, but rather wanted to guide it in the right direction. Thus, Von Moltke developed the system of *Aufragstaktik,* or mission command. Under this concept the commander told their subordinates what to do, but not how. The system depended on uniformity of thinking and reliability obtained through thorough training and education and practical experience. Confidence of superiors in their subordinates was indispensable under mission command, and subordinates required an equal confidence in their superiors. With the concept of mission command von Moltke nurtured an army that did not depend on being led by a single, or small number, of military geniuses. Because the performance and potential of the average officer and soldier was improved raised, the organization was better able to adapt to circumstances by making corrective decisions during the execution phase-- even if the overall plan was flawed.[22] The value of von Moltke's concept of mission orders to civilian business was not appreciated until much later, but in recent times Moltke's ideas have been embraced by such persons as veteran management consultant Stephen Bungay of the Ashridge Business School, and the chief executive officer (CEO) of General Electric, Jack Welch.[23]

Interestingly many civilian industrial organization experts contemporary to von Moltke entirely missed the significance of mission command. But after the Franco – Prussian War of 1870 – 1871 they became enamoured by the general staff system. Initially, the Prussian general officer was exactly that, an able officer with broad general knowledge to assist commanders in planning and executing operations. After the disastrous Prussian defeat at Jena in 1806 the general staff was formed to guard against royal and

princely incompetence in leading armies. Under von Moltke the relationships that developed between the general staff and individual commanders were neither formal nor highly structured. General staff officers were not looked upon as authoritarian figures or demigods as depicted in later periods in German history. They were simply officers with a good overall understanding of strategic objectives and capable of performing interchangeable duties to assist army and corps commanders.[24]

In applying this to the commercial world A. M. Waitt, writing in 1904, envisioned a military type staff organization for large American railroads systems. According to Waitt,

> Chief executive officers and department chiefs to have a sufficient staff of able men to relieve them routine and detailed work, and detailed work, and also to have a corps of assistants who are free from confining routine work who can be assigned to special investigation of important matters in department work.[25]

One young observer of the Franco – Prussian War was Harrington Emerson, a seventeen year old American language and engineering student in Europe. Emerson saw both sides of the conflict, and commented later that he admired the Germans for their efficiency and the French for their character in equal proportions. He would go on to become an "efficiency engineer" and leading proponent of scientific management. Deriving inspiration from the Prussian general staff, Emerson developed the line and staff system for large corporations.[26] The line was what the army command structure looked like before the addition of the general staff. Describing the inspiration of Emerson line and staff from the Prussian army the *American Engineer and Railroad Journal* states in 1908,

> It was the addition of addition of the staff to line which enabled the Prussian army under von Moltke to overthrow the combined armies of Austria and Southern Germany in an exceedingly short campaign, thus making possible a united German Kingdom, which in turn defeated the French in a campaign of less than two months.[27]

Emerson was dazzled by German army efficiency and its military technical achievements such as quick rail movement of troops and supplies, the quick evacuation of casualties with well-equipped hospital trains, mobile telegraph units, and improvements in weaponry such as breech loading

artillery and breech loading rifles. Emerson entirely missed or ignored von Moltke's concept of mission command. Emerson saw the army organization that von Moltke developed through the prism of scientific principles. Mistakenly or disingenuously, he portrayed von Moltke a sort omnipotent master of scientific management over Germany society. Emerson perhaps used this image to justify an authoritarian approach to the applying his military derived staff and line system to private industry.[28] He saw general staff officer's parallel in private industry as the "special expert" who would furnish the best methods of applying scientific principles of efficiency to all levels of an organization. According to Emerson's vision, as the special expert was a representative of the top leadership, the line officers were simply required "to use what is furnished" from the expert.[29] From Emerson's misconception of the general staff officer under von Moltke would came the modern efficiency expert and management consultant so humorously portrayed as bungling outsiders all named Bob in the 1999 dark comedy *Office Space*, a movie that has become a cult classic about the modern workplace.[30] Emerson's ideas on efficiency became a key part of scientific management of which he and Frederick Winslow Taylor were chief proponents. Scientific management would have profound influence over the American military in the twentieth century.

The application many of military general staff concepts as envisioned by von Moltke, to large commercial organizations was far better understood by an anonymous author writing in the America rail industry trade publication *Railway Age* in July 1949 . In his article entitled "Staff Work" and the Future of Private Ownership," the writer, mostly likely a railway executive and army reserve officer, believed that, "The secret of effective staff work, of course, lies in the widespread delegation of authority and responsibility to competent subordinates."[31] He saw that the staff work as applied to the railway industry had three objectives:

> (1) Getting into the policy-making picture significant economic, social, and technological information which is now omitted from consideration;
> (2) Stretching the minds and imaginations of younger railroad officers by requiring them to master a wider variety of jobs than their predecessors did, thus increasing their alertness and resourcefulness and;
> (3) Giving top management of the industry the widest possible knowledge of the environment in which the industry is living, with

> the end of getting the best "break" possible out of that environment.[32]

According to the author, giving top or strategic management information for the widest possible knowledge of the environment was necessary as rail executives not only had to be "competent administrators" and "brilliant experts" in their industry, most of them also had to spend many hours every week preparing and presenting testimony to legislators and regulators, "in hope of imparting to amateurs sufficient information to enable them to arrive at decisions of policy."[33] Accordingly, the author noted that in America of July 1949 left-wing and semi-subversive groups had superior "public relations" and manipulative skills over that of America's constructive forces. He noted that for the private railways it was a perilous time as they were "half-way in clutches of socialization."[34] Although he did not use the term, the unknown writer believed that a vital part of staff work was to develop effective strategic communications targeted at the general public, press, and government policymakers.

This clear vision of the application of general staff concepts to private industry was not *en vogue* at the turn of the twenty century in America. Instead, it was the concepts outlined by Emerson that would serve as the foundation for the field of scientific management.

**The Rise of Scientific Management**

The euphoria for industrial and scientific progress in the late nineteenth and early twentieth centuries gave rise to a number of pseudo – scientific fields applied to human affairs such as political science, sociology, and scientific management which all attempted to provide forms of decision making that was more "scientific", and thus believed to be the best means to manage complex problems. There existed a general hope that one could establish a "science of society" where the facts of human affairs would be subject to deterministic laws as in physics and chemistry and that such laws would be discovered by further research.[35] Along these lines Emerson came up with twelve principles of efficiency. He argued ,

> Efficiency like any other branch of applied knowledge, has its own laws. These laws are absolute. You cannot have high and continuous efficiency if any of these laws is neglected. Wherever

> there is high efficiency it will inevitably be found that it is attained by observance of all or one of these laws.[36]

However, these efficiency laws or principles were hardly scientific. They consisted of such things as inspiration, common sense, special expert advice, discipline, the fair deal, standard practice instructions, efficiency records, scheduling and dispatching, standard practice instructions, time study work, standardized conditions, standardized operations, and efficiency reward.[37]

Better even known than Emerson in the field of scientific management was Frederick Winslow Taylor. Taylor was credited with greatly improving the efficiency at the Midvale Steel Company in Philadelphia, Pennsylvania during his eight year tenure as master mechanic. Taylor established a system for manufacturing enterprises which broke down complex production tasks into a sequence of simple, standardized steps that permitted a standardized mass production line supported by a personnel management system that classified work into standard tasks and workers into standard specialties. Workers trained in these standard specialties became interchangeable parts of the manufacturing system to be placed where needed during the process. The management system was based on centralized control from the top, and all decisions made in the organization were done with overall efficiency in mind.[38] Taylor's approach to management rested on three premises: first it was possible in principle possible to have near to perfect information to be able to plan what to do; secondly, planners and doers should be separated; and third, there is but one right way to do things.[39]

Even within the steel industry not everyone believed that Taylor's approach was truly beneficial. In 1898 Taylor was allowed to implement his approach at the Bethlehem Shipbuilding and Steel Company in Bethlehem, Pennsylvania where he was hired as a consultant. Taylor greatly improved efficiency. However, in 1901 he was fired because Taylor's system required a large number of consultants to oversee the manufacturing process and the productivity gains were eaten up by the whopping wage bill of these consultants. In 1903, Bethlehem was sold to steel magnate Charles M. Schwab who quickly fired the consultants that Taylor had brought into the company. Undeterred, Taylor went on to lecture at the newly formed Harvard School of Business helping to ensure

that the concept of scientific management entered the academic mainstream.[40]

Scientific management became a matter of widespread public interest after the sensational Interstate Commerce Commission (ICC) public hearings in 1910. The ICC was the American federal government agency regulated the rates that American commercial railways could charge freight shippers. In the hearings lawyer Louis D. Brandeis, representing a group of shippers, and efficiency expert Emerson, suggested that scientific management could make American railways more efficient and thus save millions of dollars a day for the railways and forgo the need for freight rate increases.[41] Depending on one's perspective, Emerson and Brandeis were either visionary men or shady adventurers taking ethical shortcuts to their pieces of the American pie. Railway management experts proved that many of the scientific management suggestions for rail companies were misguided or blatantly deceptive. Unlike a manufacturing plant, a railway work force had to be spread out thinly over the distance of a railway line working under scant supervision and their work being checked by inspection. On the other hand, the scientific management system required the constant supervision of workers which was only possible in a large concentrated manufacturing plant. Even in large railway workshops, the repair, maintenance and construction tasks were generally too varied to allow work to be broken down into standardized steps to permit mass production. Furthermore, many of Emerson's statistics were shown to be manipulated. For example, Emerson depicted the Union Pacific Railroad as inefficient because it had the highest locomotive maintenance cost of any railway in the country. On other hand, he failed to acknowledge that the highest maintenance costs also resulted in the lowest operating costs. Many railway managers considered the scientific management experiments Emerson conducted in the Atchison, Topeka and Santa Fe Railway's workshops and roundhouses to be failures. Emerson showed that his scientific method reduced the cost of conducting locomotive maintenance, but failed to account for increased cost due to more mechanical failures while in service. A number of middle managers who observed the experiments believed that they led to the demoralization of the workforce who disliked being treated like automatons. Scientific management was questionable at best. At its worst it was shown to be unscientific as it relied on scattered examples amid varying conditions rather than careful experimentation and reproducible results. It was also criticized for ignoring the human element of management.[42]

While the railways rejected scientific management and the ranks of its critics grew, the concept had its many devoted followers as well. The discussion surrounding the 1910 ICC hearings served to popularize the concept and made scientific management an issue of widespread public discussion and soon it won a following among managers of certain manufacturing industries, within university business faculties and the American federal government. In 1899 US President William McKinley had appointed Elihu Root, a corporate lawyer, as the Secretary of War to reform the army by bringing modern business practices to the US War Department. Root was an early devotee of scientific management and paved the way for its introduction to the military. However, it was the Major General William Crozier, Chief of Ordnance from 1901 to 1918, who introduced scientific management in earnest to the US Army. The scientific management system was first applied to army manufacturing operations at arsenals and ordnance plants through the efforts of Crozier. In 1911, coinciding with the stir caused by the ICC hearings, Crozier completed two years of experimental use of scientific management at the War Department Arsenal at Watertown, Massachusetts. The Secretary of War Henry Lewis Stimson stated that the results of this experiment were highly "gratifying and full of promise."[43] Stimson had been a partner with the previous Secretary of War, Root, in the Wall Street law firm of Root, Howard, Winthrop and Stimson. Both Stimson and Root had some vested business interests in promoting scientific management as it was in line with the financial interests of many of their corporate clients. In the Department of War Stimson continued where Root had left off, embarking on an ambitious program to rationalize the Army's organization along business lines. Soon after the experiment at the Watertown Arsenal scientific management was introduced at other army arsenals and ordnance manufacturing plants. Crozier took a brief absence as Chief of Ordnance from 1912 to 1913 to serve as president of Army War College where he introduced scientific management to senior army officers. During and after the First World War the scientific management practices were more widely applied to other organizations within the army. Due to the apparent success of these practices and the influence of General Crozier on senior officer education during his tenure as president of the Army War College, the army became steeped in the theory and practice of scientific management in the interwar years.[44]

This passion for scientific management lead to attempts to break the complex phenomenon of war into interchangeable parts into where

military commanders could make decisions based on standard "scientific" principles. The individual initiative and decision making abilities of junior officers was distrusted in this scientific approach to war. According to US Army Major E.S. Johnson writing in the *Review of Military Literature* in June 1934 on the need for scientific principles of war:

> If not furnished such guides by someone in authority, they will provide them for themselves…commanders, being human, will evolve their own guides, which guides will often be false. Hence the need for unchanging principles[45]

This was great contrast to the ideas of the German Army during the same period, which from the time of von Moltke had subscribed to concept of mission orders. Because of the passion for scientific management the US Army did not develop anything resembling mission orders during the interwar years.[46]

Interestingly enough, during the interwar years another place where the scientific management received an enthusiastic reception was the Soviet Union. Both Lenin (Vladimir Illych Ulyanov) and Trotsky (Lev Bronstein) were vocal admirers of Taylor. At Lenin's order Taylor's works were translated into Russian and serialized in *Pravda*. With the rise of Stalin (Iosif Vissarionovich Dzhugashvili) to power scientific management simply became a way of driving workers to work harder and harder with the threat of being sent to the Gulag, or being denied food in case of collective farmers. By the late 1930s the ultimate result was an arbitrary upward creep of production quotas imposed on the workers by central planners.[47]

During the same period the US Army was not entirely under the spell of scientific management. As World War II approached reserve officers Colonel Carl R. Gray Jr. and Colonel C. D. Young drew up reorganization plans for army transportation units. Both were railway vice presidents in civilian life, Gray for the Chicago, Saint Paul, Minneapolis and Omaha Railway and Young for the Pennsylvania Railroad. Organization and management concepts from railway industry concepts, rather than scientific management, proved highly successful for the US Army Transportation Corps in managing theatre movements during the World War II and the Korean War.[48]

Another aspect of the US Army service support in Second World War and Korea, notably personnel administration, was directed firmly under the

scientific management concepts. Scientific management methods provided an administratively efficient personnel system to get replacements where needed. However, this approach did not take into account the social and psychological factors to build cohesive and effective units. In the Second World War, the army put administrative efficiency as the top priority over other considerations and, according to Hebrew University professor of military history Martin Van Creveld, this resulted in many US Army combat units often having low morale, poor cohesion and a lack of fighting power.[49] The US Army persevered during war despite a flawed personnel system and in the elation of victory in 1945 many of the lessons learned regarding unit cohesion and combat effectiveness were forgotten.

Thus an unsuitable personnel system based on Taylorian concepts largely remained in place through the Korean War, Vietnam and to the current day. The personnel system, based on scientific management concepts, was legitimized by its apparent success in the Second World War despite substantial evidence to the contrary. Many senior army officials believed that the personnel system produced a winning army that overcame the warrior cultures of Germany and Japan. There was also a misconception that German military prowess emanated from their mastery of scientific management, this perhaps originated with Emerson's misconceptions and which was reinforced by wartime propaganda that portrayed the Germans as industrial automatons. Much to their consternation American intelligence officers found from interrogation of German army personnel after the Second World War that the Wehrmacht employed neither mechanized methods of administration nor a points system in personnel management. Furthermore, it had little use for opinion polls, social workers, or psychoanalysis. The *Wehrmacht* was content to collect only modest amounts of statistical information and as a rule, did not employ strict mathematical models.[50]

Statistics and mathematical models were central to America's strategy making during the Vietnam War. The American military's passion for scientific management led to its increasing influence into politico - strategic and military decision-making and the sway of civilian experts trained in this field over the entire American defence establishment. The methodology of the civilian specialists guiding the Vietnam War effort was the economic conflict model using the assumption that international conflict could be analyzed in terms of rational strategic men. This approach had it limitations as it discounted the often intangible social

and cultural motivations of the enemy. Furthermore, the success of military operations was measured in terms of statistics which were often flawed in assumption and collection. Pentagon leadership imposed on military operations the ideas of scientific management including such ideas as the irrelevance of specific social and cultural conditions, centralized decision making, and a fixed best approach of doing everything.[51]

In American domestic law enforcement during the same period a similar approach was advocated for urban policing by experets tied to the Johnson administration in the wake of the political assassinations and race riots of the era. Their approach was based on metrics such as how fast it takes the police to respond to a complaint, or the time it takes to make an arrest after a crime. In the view of these experts, crime was caused chiefly by poverty, an assumption that criminal activity could analyzed in terms of rational economic actors. As poverty was outside of police control, the only strategy police could have was to respond efficiently. The alternative policing strategy which largely served to replace this type of computer – statistics based policing, is community policing, which focuses on shaping community environments and individual behaviors positively by proactive police work that seeks to prevent crime as opposed to just responding to it. The application of scientific management to domestic policing proved to be as unsuccessful in fighting crime as it had been to fight the Vietnam War.[52]

The failures of scientific management in guiding strategy in the Vietnam gave pause to passion of its application to military operations and strategy. Nevertheless, it would continue have to lasting influence on segments of the American defence establishment such as the US Army's Human Resources Command.[53] The soul searching in the US armed forces after the Vietnam War led to a renaissance in American military thinking that took place in the late 1970s and early 1980s and led to the concept of manoeuvre warfare that embraced mission command and many of von Moltke's other ideas, and moved away from the doctrinal approach of trying to apply scientific management to warfare.[54]

During the same period the glow of scientific management also faded in private industry. By the mid-1970s the American automobile industry, which had been a model of scientific management in the 1950s and 1960s, was in decline and unable to react to market conditions. During its heyday

the industry provided two former top executives to serve as Defence secretaries to include Charles Erwin Wilson of General Motors (GM) and Robert McNamara of the Ford Motor Company. As long the American automobile industry was producing predictable quantities of predictable products in a predictable market, the scientific management approach worked well. As the business environment became more complex and unpredictable with the petroleum shocks in 1970s and rise of foreign competition, the approach began to break down.[55] According to some observers of American business, in GM's case it was not so much production efficiency that gave it a successful business model but the skill of its CEO Alfred P. Sloan, Jr. through the 1920s to the 1950s to use the company's sizable resources to manipulate government policy and local economic conditions to keep the automobile market continuously expanding. The main strategy was to use the company's sizable financial muscle through a byzantine network of subsidiaries and holding companies to buy privately owned mass transit systems throughout the United States and systematically dismantle them, thus forcing the former users to have no other alternative than to purchase automobiles.[56] Once the American auto market was saturated, and GM not being nimble enough because of its rigid management practices to meet new foreign competition, the approach no longer worked. Eventually, this contributed to the company's bankruptcy. The source of much of this competition, Japan and its industrial practices, became of great interest to American managers and business schools.

Within the phoenix like recovery of Japan in the 1960s and 1970s, Japanese management practices were seen as major factors in Nippon's "economic miracle." They were seen as possible solutions to the many pressing problems facing American and Western European manufacturing industries, many of which were ailing by the early 1970s.[57] Japanese management practices would also have great influence on the America military. It was to certain extent a double circle as some Japanese management concepts had actually been introduced by American experts of the US occupation government of Japan under General Douglass MacArthur in the post Second World War era.

## W. Eduard Deming: Total Quality Management

In one of his first steps in occupation of Japan General MacArthur established the Civil Communications Section (CCS) to provide mass communications to the Japanese population. As the CCS broadcasted instructions and information over radio directly to the Japanese population, each household needed a radio. The CCS thus established an industrial division to coordinate the Japanese manufacture of small portable radios. MacArthur recruited a group of American engineers, many of whom were experts in quality control and had worked for Western Electric or Bell Laboratories before the war. Their task was to advise Japanese companies how to construct small portable radios of good quality. Between 1945 and 1949 they established testing laboratories and certified quality standards and advised Japanese managers in reopened in industrial plants. The occupational government's secondary aim of this advisory effort was that they wanted the Japanese to regain confidence in manufacturing and develop export products. [58]

Towards this end, in 1949 the CCS began sponsoring management seminars on quality techniques for the Japanese communications industry. One of the first speakers was W. Eduard Deming, who in 1921 had earned a bachelor's degree in electrical engineering from the University of Wyoming and in 1928 a doctorate in mathematical physics from Yale University. Deming had worked for Bell Laboratories, the research and development organization for Bell Telephone Companies. He first visited Japan to assist MacArthur's staff in compiling statistics for a census of Japan. In the CCS seminars Deming introduced his quality control approach which was to use statistics to achieve better quality control by recording the number of product defects, analysing why they happened, making adjustments and then further measuring the quality results. One refined the process until near perfect standards were achieved. Deming also advocated treating workers as associates and not as mere underlings. He saw it as a problem of poor management if workers were not motivated to work well. After the CCS seminars ended Deming continued to speak and consult in Japan and became very popular in Japanese management circles. Japanese manufacturing businesses were receptive to his ideas in 1950s and 1960s while American manufacturers were not as Emerson and Taylor still held strong sway over American manufacturing. The Japanese eagerness to adopt Deming's ideas was in part because they dovetailed with many Japanese traditions. The Japanese had long held hard

work and quality craftsmanship as important virtues. Furthermore, the Japanese had the well-established and widespread practice of "circumstantial adaptability", or taking in foreign methods and technologies adapting them to local conditions and then improving on them.[59] The Japanese manufactured goods won a reputation for quality, while many American products such as automobiles were increasingly seen by consumers as being of inferior quality. American manufacturing industries began to take an interest in the Japanese style of management and Deming's ideas.

While Deming's ideas were gaining more adherents among American manufacturers and on university business faculties, the American military was also starting to take notice. Japanese contractors and suppliers supporting the US Navy and US Air Force commands in Japan had gained a reputation for good quality and service. In 1982, several members of the Air Force's Directorate of Distribution at McClellan Air Force Base in Sacramento, California attended a seminar presented by Deming on quality control. Impressed with Deming's approach they decided to bring these concepts to their own organization, which provided logistics support for tactical fighters and stealth aircraft development. Initially, a small group spread headed the adoption of Deming's practices first at McClellan Air Force Base. The practices soon spread to other air related commands through the Air Force's research and development establishment at Wright-Patterson Air Force Base in Dayton Ohio. The Naval Air Systems Command headquartered at the Patuxent River Naval Air Station in Maryland adopted the concepts first at North Island Naval Aviation Depot in San Diego, California. With the apparent success in quality improvement the approach was extended in the navy to other aviation depots, shipyards, and naval supply centres.

From these practices the Naval Air Systems Command coined the term Total Quality Management (TQM) to describe this Deming-inspired Japanese-style management approach to quality improvement. TQM would eventually permeate all parts of the American military and defence establishment. In May 1988 Deming spoke to 500 top military officers and soon after he oversaw the establishment of a Department of Defence senior executive TQM training course. While TQM became official policy of the Department of Defence, in 1990 the Chief of Naval Operations retitled it for the Department of Navy as Total Quality Leadership (TQL) to emphasize the crucial role leaders have in the quality approach. The

change in labels did not affect any of the major elements of the Deming approach. TQL was introduced throughout the US Navy and Marine Corps to headquarters, commands, operational units, field activities, and systems commands. At the same time, the U.S. Army implemented in logistics units and maintenance bases. Israel, the then largest recipient of American military assistance funds, also implemented it to Israeli Defence Forces (IDF) support units and was first to test whether TQM had any use in combat units. [60]

As enthusiasm in the US military for TQM and TQL grew and spread to the defence establishments of allied countries, the elements of Japanese culture and philosophy that made Deming's ideas work in Japan were largely missing. According to defence and strategic management expert Chester W. Richards, lean production, a creation of the Toyota Group which represented the apex development of Japanese-style management in the 1980s and 1990s, relied more on a Taoist / Zen framework that had more in common with the classical Asian military and strategic thinkers Sun Tzu and Miyamoto Musashi than Deming's concepts. In essence, lean production was the implementation of Sun Tzu to the commercial world.[61] Lean production has much in common with the manoeuvre warfare concepts that were developing in the US military in the 1980s which embraced mission command and the swift, lean, and adaptable approach of Sun Tzu. According to Richards:

> Enterprises that successfully employ lean production routinely take market share from those who do not, and, because of their lower costs, generally post far better bottom lines. It should also be noted that improving mutual trust is a key element in implementing lean production, and that coincidentally; the people who invented lean manufacturing were careful students of Sun Tzu. To see the power of Sun Tzu's strategy applied to business, one need only note that between 1980 and 1990, General Motors' share of the U.S. market declined from 52 per cent to less than 30 per cent, largely driven down by the inroads of Toyota, Nissan, and Honda.[62]

However, in the widespread to diffusion of TQM/TQL to the military the element of circumstantial adaptability, which made Deming's concepts meld with Japanese culture and traditions, was often lacking. For the

Marine Corps TQL seemed something imposed from the top and outside. This was in contrast to the Marines implementation of manoeuvre warfare as a doctrine that was driven by a combination of the initiative of junior and mid-grade officers and the strong will of the Commandant of the Marine Corps. In contrast, TQL instruction to Marines came from the Department of Navy and was often taught by non - Marine civilian experts. This instruction introduced business jargon unfamiliar to Marines and created a subculture within the service with its own language. Marines steeped in the leadership examples of the likes of Smedley Butler and Lewis B. Puller were unimpressed by the success stories of the Ford Motor Company and the Sears and Roebuck retail chain.[63] The other military services had similar problems in applying TQM to leader development.
The Israeli Defence Forces also found difficulties in applying TQM broadly in what was essentially an effort to supplant classical military theory and strategic thought. Business performance indicators were not always transferable and relevant to the military. According to Boaz Ronen of Tel Aviv University, "Businesses measure performance by profit and loss, market share or the number of product defects, but in a tank battalion or a squadron of pilots, how do you measure performance?"[64] Along the same lines Israeli TQM expert Moshe Dov states, "the customer isn't another soldier; it's the state. That's very abstract. Beyond winning a war, a soldier can't determine what that customer wants."[65]

Along with the IDF the armed forces of another close American ally, Canada, adopted TQM. The Canadian Forces (CF) took this concept along with other business derived practices imposed from the top by the Canadian Department of National Defence. As in the US armed forces, many in the Canadian Forces saw TQM leading to a 'zero defects mentality,' where problems in the organization were glossed over or covered up because of a rigid officer evaluation system based on TQM principles where officers approved for advancement had to have total quality organizations under their command with 'zero defects.' In the US Army many this saw this mentality having its roots in earlier management concepts. The scientific management based system of Officer Efficiency Reports (OERs), which are used for periodic officer evaluation and to determine suitability for advancement, was standardized in July 1947 in line with reforms pressed by General George C. Marshall. The purpose of the OER was to support an up-or-out promotion system which was needed to build a mass mobilization army to take on the Soviets. At beginning of World War II the Army did not have enough trained officers at the middle

and upper ranks for to take on the responsibilities of a much larger force. The OER was prone to inflation by officers wanting to project their subordinates in the best light as officers as average or below average OERs would have their careers ended. Attempts to reform OERs with the Defence Officer Personnel Management Act of 1980 simply interjected more unrealistic expectations and could be simply used to 'rift' officers out of what was increasingly seen as a bloated officer corps that encouraged the 'zero defects mentality.'[66]

In Canada, where the implementation of TQM was seen as the origin of the 'zero defect mentality,' many in the Canadian Forces considered it to be the key contributing factor to the "Somali Incident" where members of the Canadian Parachute Regiment deployed on a peacekeeping mission tortured and murdered a Somali teenager in spring 1993. The catalyst for the incident was that superior officers did not want disclose that there were some members of the regiment unfit for deployment overseas because this was an admission of defects in unit training and personnel management. By 2000 many in the Canadian Forces leadership came to realize that TQM and other related business derived initiatives had only marginal benefits and were flawed in concept and execution.[67]

**The Revolution in Military Affairs**

Israeli and Canadian enthusiasm for TQM declined as its application was stretched to the limit in Israel and the Canadians clearly saw its limitations and hazards. Enthusiasm for it waned in the US armed forces as well. TQM became a common practice in some defence production and military support facilities, but could not be fully internalized in other segments of the military. TQL seminars were eventually dropped as part the military leadership education and 997 noted military historian Dennis Schowalter observed, "RMA [Revolution in Military Affairs] has replaced TQM as the acronym of choice" among members of the US Armed Forces.[68] The RMA was a technology-centric concept which, like the application of scientific management to military operations, treated war as a mechanistic process.[69]

As with TQM, Israel quickly adopted various RMA concepts throughout the IDF. Many of these concepts also proved unsuitable for the IDF and with the issuance of the Winogard Report in 2007,which investigated the Israeli military shortcoming in the 2006 "Summer War" in Lebanon,

commentator on military affairs William Lind observed "[what] became known as the Revolution in Military Affairs, or, more recently, Transformation. This vision of future war, a vision anchored in hi-tech, high-price "systems," is, I am happy to report, militarily dead."[70] Lieutenant Colonel Scott Stephenson, an instructor in the US Army Command General Staff Course is less precise in the date for the demise of RMA's popularity:

> One would have difficulty in pinpointing the exact time and place of RMA's demise. The exciting synergy of Special Forces and B-52s blasting the Taliban in 2001 seemed to renew its vogue. However, with the beginning of a full-blown insurgency in Iraq in late 2003, the use of "RMA" as a Pentagon mantra came to an abrupt end. The exact location of the phrase's collapse is open to speculation, but one place to look for it might be along Route Irish, between the Green Zone and the Baghdad International Airport. Near the shell of a burned out Humvee one might also find the detritus of RMA's associated concepts such as "perfect situational awareness" and "full spectrum dominance."[71]

While the RMA was not directly derived from civilian sector management as TQM/TQL was, its proponents heavily cited trends in private industry to promote the concept. In many ways it was an attempt to apply a business model to war. RMA supporters Vice Admiral Arthur Cebrowski and John J. *Garstka* contended that information systems would dominate future war citing several business studies showing how information systems allowed a business to dominate its field. According to Cebrowski and Gasrstka, the advantage conveyed by information networks is so overwhelming that certain new industries rewrote economic norms and achieved increasing returns on investment rather than diminishing returns. As a result, these firms came to dominate their specialized markets and locked out their competitors. Based on this example some RMA supporters developed the idea that modern war is similar to modern business and that the advantages that information networks give businesses could be applied to conflict situations with even better results.[72] In a critique of this approach Colonel T. X. Hammes of the US Marine Corps noted in 1998 that a rational business decision making process could not be applied to war. Hammes notes,

> How could a "business" possibly be rational when it is based on the concept of trading lives for ideas? How many lives is independence worth? Religious beliefs? Ethnic identity? This is the central problem to applying a business model to war. A business model assumes rational decision-making. Yet war is rarely rational and always highly emotional.[73]

This expresses the limitations of trying to apply a business model to warfare. The enemy has a vote and he usually will not act like a business competitor making rational decisions in reaction to market conditions within the legal and ethical parameters of the marketplace. The "wake up call" in this regard first came in July - August 2002 with Millennium Challenge 02, a three-week, all-service exercise involving 13,500 participants waging a mock war in seventeen simulation locations and nine live-force training sites to test RMA concepts. Within the free play exercise retired Marine Corps General Paul Van Riper played the opposing forces commander taking the role of the leader of a fictious rogue Persian Gulf state. Playing the opposing 'red' forces commander, Van Riper used motorcycle messengers to transmit orders, negating friendly blue forces' sophisticated electronic warfare capabilities. When the blue forces amphibious group entered the Gulf, Van Riper gave a signal coded message broadcast from the minarets of mosques at the call to prayer signal scores of seemingly harmless small craft and propeller planes to make al-Qaida-style suicide attacks or launch Silkworm-type cruise missiles against blue forces vessels and airfields along the Persian Gulf. Within the exercise simulation sixteen ships were sunk altogether a quick and embarrassing end to the most expensive and sophisticated military exercise in US history. The fleet was "reflated" and exercise was restarted with constrains applied to Van Riper's freedom of action. Nevertheless, the conduct of the exercise called into question the veracity of the many RMA related concepts that had been taken as mantra by a large part of the US military leadership.[74] Like scientific management, the RMA offered a mechanistic approach to war. Van Riper's red team was able to outthink blue forces with less available information in Millennium Challenge because the RMA approach lacked the human element. According to Van Riper,

> I told our staff that we would use none of the terminology that Blue Team was using. I never wanted them to hear word

> 'effects,'[from Effects Based Approach to Operations] except in normal conversation. I didn't want to hear about Operational Net Assessment. We would not get caught up in any of these mechanistic processes. We would use the wisdom, the experience, and the good judgment of the people we had.[75]

The information lock out which was perhaps possible in a business sector that allows a firm to dominate its field does not necessary work in warfare where the "competitor" is not bound by the legal and ethical constraints found in the marketplace and may not make decisions that seem rational or are predicable. Even in the business realm many leading experts have come to believe that in the contemporary fast-changing and unpredictable commercial environment organizations cannot always work like well-oiled machines with perfect information. According to Bungay, successful organizations "behave like organisms and are able to act more effectively with less information than their rivals."[76] From Bungay's perspective contemporary businesses can learn from the military. His solution is a firm that is organized more like the Prussian Army of von Moltke rather than a steel mill under Taylor's scientific management.[77] According to retired US Army Lieutenant Colonel Robert R. Leonhard, who serves as an analyst for national security affairs at the Applied Physics Laboratory at John Hopkins University, mission command, "gets the subordinates in involved in decision making." Leaders at, "lower levels are able to decide a course of action without having to wait for information to flow upward and orders to flow downward. They can perceive, decide, and act immediately."[78] Leonhard sees mission command as most effective in situations where uncertainty reigns and there is a lack of timely and clear information available to higher leadership. Hence initiative in decision making is most beneficially exercised at the level where the best information is available.[79] Bungay sees mission command as a way for civilian management thought to escape the moribund early 20th century legacy of scientific management. He argues,

> I have worked with many groups of managers who are seeking to escape the confines of their 20th century legacy. For them, mission command is like manna from heaven. The armed forces have been urged for many years to learn from business. Perhaps it is time for the teachers and the pupils to swap places.[80]

## Conclusions

Since the first half of 19th century there has been a steady flow of ideas back and forth between the military and civilian field of management. Civilian enterprises and military organizations often face the same basic problem -- working with increasingly sprawling organizations in increasingly complex environments. However, there have been clear boundaries in the fruitfulness of this exchange. From recent experience with RMA concepts and TQM, and with earlier experiences with scientific management, the principal lessons for the military seems to be that there are general limitations of what can applied from civilian management practices and the scope of their application. TQM and scientific management might have been suitable to make a defence production facility more efficient, but the concepts have proven themselves unsuitable as general leadership concepts for the services, for building cohesive military units, or to be a model for the decision making process regarding military operations and strategy. Scientific management and TQM seemed to work the best when applied to certain aspects of military logistics, manufacturing and industrial processing where there is not a great deal of uncertainty. In the case of scientific management there was the early recognition that it was not applicable to all sectors of civilian industry, as in the case of the rail industry. Arguably at the time of Root, Stimson and Crozier scientific management was still a business fad and had not been fully proven - not even in steel manufacturing. It was perhaps accepted as Gospel too quickly and in too many sections of the US military establishment where it was not appropriate. In a similar way, TQM brought some positive benefits to segments of the military. Yet again there was an attempt to apply it too widely without enough effort made to adapt the concept to specific organizational cultures such as the US Marine Corps. Circumstantial adaptability, so successfully practiced by the Japanese, was entirely missing.

The application of McCallum's management concepts were appropriately limited, coming during the Civil War and used to cope with a new set of transportation and logistical challenges of a previously unprecedented scale. But his concepts only had an influence on one part of the army, and that for a short time. However, McCallum's concepts later seeped gradually into the American military leadership's consciousness and organizational doctrine as McCallum's ideas became widespread in the commercial realm.

As mentioned earlier, the flow of ideas is a two-way street and concepts developed in the military-- such as mission command and general staff work-- if properly understood can be applied to commercial organizations. As in the case of Emerson, there is the danger of misunderstanding or misinterpreting military concepts and applying them to the civilian realm in a less than beneficial way. By the same token, a number of lessons can be derived from historical experience as caveats in applying civilian management concepts to the military in the future. First, war and business are not the same and business models cannot be fully applied to warfare. There must also be the realization of the limitations of what can be applied from civilian management to military and where in the military it can be applied to armed forces and defence organizations. Although it is often beneficial to adopt new concepts from the commercial world, care must be taken not to move too quickly and broadly on what might just be a short-lived and questionably effective fad. Armed services and military support organizations have their own specific organizational cultures, thus concepts from the commercial world usually must be modified and adapted to meet the specific circumstances of the organization. By the same token, smaller allied armed forces must think hard about their own specific circumstance before adopting business derived concepts which are currently *en vogue* with the American military or any other larger allied militaries, even if they are your main defence partner.

[1] Valeri Ratchev, "Government, Management, Command, Leadership: Setting the Context for Studies of Defence Management," in Hari Bucur-Marcu, Phillip Fluri, Todor Tagarev (eds) *Defence Management: An Introduction.* (Geneva: Centre for the Democratic Control of Armed Forces. 2009), p. 23

[2] Alfred D. Chandler, "Anthracite coal and the beginnings of the industrial revolution in the United States," *Business History Review.* (Summer 1972), p. 178

[3] Carl R. Gray. "The Military Railway Service up to the Italian Campaign," *Military Review.* (May 1948), p. 5, W.F. Riter, "Rail Transport: A Military – Historical Study," *The Quartermaster Review*. (March – April 1927), 'http://www.qmfound.com/rail.htm' (4 January 2005), US Army Transportation Corps (hereafter cited as USATC) *Transportation Handbook Number One for the Organized Reserve Corps.*. (Fort Eustis VA: Army Transportation School.1949), p. 65, James A. Van Fleet, *Rail Transport and the Winning of Wars.* (Washington DC: Association of American Railroads. 1956), p.12

[4] Anglevine. *The Railroad and the State: War, Politics, and Technology in Nineteenth Century America.* (Stanford CA: Stanford University Press. 2004), p. 66, Barry R. Nemcoff, "Railroads For The US Army," *Railroad Magazine.* (December 1952), p. 43, USATC *Transportation Handbook Number One for the Organized Reserve Corps.*, p. 65

[5] Anglevine. *The Railroad and the State.* , p. 66, Chandler and Salsbury, "The Railroads: Innovators in Modern Business Administration," p. 160, Frederick C. Gamst, "The Context and Significance of America's First Railroad on Boston's Beacon Hill," *Technology and Culture.* (January 1997), p. 79

[6] Anglevine. *The Railroad and the State.* , p. 130

[7] E. G. Campbell, "United States Military Railroads: War time Operation and Maintenance," *Journal of the American Military History Foundation.* (Summer 1938), p. 72

[8] Alfred D. Chandler**.** *Strategy and Structure: Chapters in the History of the American Industrial Enterprise.* (Cambridge MA: The MIT Press. 1969), p. 22, Alfred D. Chandler, "The Railroads: Pioneers in Modern Corporate Management," *Business History Review.* (Spring 1965), pp. 28 – 29, A.D. Chandler and S. Salsbury, "The Railroads: Innovators in Modern Business Administration," in Bruce Mazlish (ed). *The Railroads and the Space Program: An Exploration in a Historical Analogy.* (Cambridge MA: MIT Press.1965), pp. 138 – 139

[9] Daniel C. McCallum, "Superintendent's Report," in Chandler. The Railroads: Pioneers in Modern Management," in Alfred D. Chandler (ed). *The Railroads: Pioneers in Modern Management.* (New York: Arno Press. 1979), p. 35

[10]Alfred D. Chandler, "The Railroads: Pioneers in Modern Corporate Management," *The Business History Review.* (Spring 1965), p. 28, Chandler. Strategy and Structure: Chapters in the History of the American Industrial Enterprise. , p. 22, Chandler and Salsbury, "The Railroads: Innovators in Modern Business Administration," p. 139

[11] Chandler, "The Railroads: Pioneers in Modern Corporate Management," pp. 34 - 35, Chandler and Salsbury, "The Railroads: Innovators in Modern Business Administration," pp. 140 – 141, Leland H. Jenks, "Early History of a Railway Organization," *The Business History Review.* (Summer 1961), p. 157, J. Edgar Thomson, " The Pennsylvania Railroad: Organization for Conducting the Business of the Road," in Chandler. *The Railroads: Pioneers in Modern Management.* , pp. 3 – 24

[12] Karl F. Eklund, "In Forty or Eight to Rosecrans: The First Wartime Use of Railroads for Strategic Purposes." *Military Review.* (February 1951), pp. 14 – 21, E. G. Campbell, "United States Military Railroads: War time Operation and Maintenance," *The Journal of the American Military History Foundation.* (Summer 1938), p. 88, Gray, "The Military Railway Service Up to the Italian Campaign," p. 5

[13] George E. Turner. *Victory Rode the Rails: The Strategic Place of Railroads in the Civil War.* (Indianapolis: Bobbs-Merrill. 1953), p. 375

[14] John W. Barriger. *Railroads in the Civil War: A Lecture at the Los Angeles County Museum, November 24, 1964*. (Philadelphia PA: National Railway Historical Society. 1966). pp. 37 – 38, R. E. Riegel, "Federal Operation of Southern Railroads during the Civil War," *The Mississippi Valley Historical Review*. (September 1922), p. 137

[15] Chandler and Salsbury, "The Railroads: Innovators in Modern Business Administration," pp. 136

[16] Anglevine. *The Railroad and the State*, p. 164

[17] Stephen Bungay, "Mission Command: An Organizational Model for Our Time." *Harvard Business Review Blog Network* (2 November 2010) 'http://blogs.hbr.org/frontline-leadership/2010/11/mission-command---an-organizat.html' (12 March 2012), Stephen Bungay, "Moltke – Master of Modern Management: The Art of Action - How Leaders Close the Gaps Between Plans, Actions and Results," *The European Financial Review* (April - May 2011), p. 55

[18] Larry M. Foster, "Coaltion Leadership Imparatives," *Military Review*. (November – December 2000), p. 59

[19] On network centric businesses as an example for the concept of network centric warfare - Arthur K. Cebrowski and John J. Garstka, "Network-Centric Warfare: Its Origin and Future," *Proceedings of the US Naval Institute*. (January 1998), pp. 28-35

[20] D.F. Hannigan "Moltke," *United Service; a Quarterly Review of Military and Naval Affairs* (March 1893), pp. 224 – 226, Hajo Holborn, "The Prusso – German School: Moltke and the Rise of the General Staff," in Peter Paret (ed) *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. (Princeton NJ: Princeton University Press. 1986), pp. 285 – 286, Jack D. Hoschouer, "Von Moltke and the General Staff," *Military Review* (March 1987), p. 63

[21] Otto Friedrich *Blood & Iron: From Bismarck to Hitler the Von Moltke Family's Impact on Germany* (New York: Harper. 1995), p, 78, Hannigan, "Moltke," p. 228, Hoschouer, "Von Moltke and the General Staff," p. 64

[22] Bungay, "Moltke – Master of Modern Management," pp. 54 – 55, Martin van Crevald. *Fighting Power German and US Army Performance, 1939 – 1945*. (Westport CT: Greenwood Press. 1982), pp. 35 – 38

[23] Bungay, "Moltke – Master of Modern Management," p. 55

[24] Michael D. Krause, "Moltke and the Origins of the Operational Level of War," in Michael D. Krause and R. Cody Phillips (eds) *Historical Perspectives of the Operational Art* (Washington DC: Center for Military History. 2005), pp. 140 – 141

[25] "Organization." *American Engineer and Railroad Journal*. (1 October 1908), p. 393

[26] "Organization," p. 393, Morgan Witzel, "The Art of Management and Military Science," *European Business Forum* (Spring 2004), p. 68

[27] "Organization," p. 393

[28] Harrington Emerson, "The Duration of the World War," *Outlook* (16 June 1915), p. 372, , "Organization," p. 393

[29] Harrington Emerson, "The Fundamental Principles of Efficiency," *The Railway Age*. (6 May 1910), p. 1144

[30] Steven S. Little. *The Milkshake Moment: Overcoming Stupid Systems, Pointless Policies, and Muddled Management to Realize Real Growth*. (Hoboken NJ: John Wiley & Sons. 2008), p. 50
[31] "Staff Work" and the future of Private Ownership," *Railway Age* (July 1949), p. 32
[32] Ibid.
[33] Ibid, p. 31
[34] Ibid. p 32
[35] Charles A. Beard, "Limitations to the Application of Social Science Implied in Recent Social Trends," *Social Forces* (May 1933), p- 506
[36] Emerson, "The Fundamental Principles of Efficiency," p. 1144
[37] Ibid.
[38] "An indictment of the New Science of Management," Current Literature (June 1911), p. 622, Harold F. Smiddy & Lionel Naum, "Evolution of a "Science of Managing" in America," Management Science (October 1954), pp. 6 -7, Donald E. Vandergriff, "The Specter of Taylorism," Defense and the National Interest. 'http://www.defense-and-society.org/vandergriff/specter_of_taylorism.htm' (9 November 2007)
[39] Bungay, "Moltke – Master of Modern Management," p. 52, Frederick Winslow Taylor. *The Principles of Scientific Management.* (New York, NY: Harper and Brothers. 1911), p. 13
[40]Witzel, "Where Scientific Management Went Awry," p. 91
[41] William J. Cunningham, "Scientific Management in the Operation of Railroads," *The Quarterly Journal of Economics*. (May 1911), pp. 539 -540 , Leland H. Jenks, "Early Phases of the Management Movement," *Administrative Science Quarterly*. (December 1960), pp. 422 – 423, Smiddy & Naum, "Evolution of a "Science of Managing," p. 10
[42] "An indictment of the New Science of Management," p. 623, Cunningham, "Scientific Management in the Operation of Railroads," pp. 549 – 551, Albro Martin. *Enterprise Denied: Origins of the Delcine of the American Railroads, 1897- 1917*. (New York, 1971), pp. 211 – 219, "Letters to the Editor: Scientific Management," *Railway Age* (17 February 1911), pp. 310 - 311
[43] "War Department Endorses Scientific Management," *Railway Age* (10 November 1911), p. 966
[44] James E. Hewes Jr. *From Root to McNamara: Army Administration and Organization*. (Washington DC: Center for Military History. 1975), p. 14, *New York Times* (29 September 1910), Peter B. Peterson, "The Pioneering Efforts of Major General William Crozier (1855 - 1942) in the Field of Management," Journal of Management. (September 1989), pp. 503 – 515, David F. Schmitz. *Henry L. Stimson: the First Wise Man.* (Wilmington DE: Scholarly Resources. 2001), pp. 12 – 13, Donald Vandergriff *The Path to Victory: America's Army and the Revolution in*

*Human Affairs.* (Novato, CA: Presidio Press 2002), pp. 41 – 44, Vandergriff, "The Specter of Taylorism."

[45] E.S. Johnston, "Principles of War," Review of Military Literature. (June 1934), 91-125, E.S. Johnston, "A Science of War," *Review of Military Literature.* (June 1934), pp. 140-41

[46] van Crevald. *Fighting Power German and US Army Performance, 1939 – 1945*, pp. 37 – 38

[47] Morgen Witzel, "Where Scientific Management Went Awry," *European Business Forum* (Spring 2005), p. 91

[48] Rowan P. Alexander, "Our Military Railway Transport Service," *Army Information Digest.* (May 1951), p, 51 Carl R. Gray, "The Military Railway Service up to the Italian Campaign," *Military Review.* (May 1948), p. 8, Gary Jennings, "The KCOMZ Story," *Army Information Digest*. (October 1953), p. 57

[49] Van Crevald. *Fighting Power: German and US Army Performance, 1939 – 1945*, pp. 178 – 179

[50] Van Crevald. *Fighting Power: German and US Army Performance, 1939 – 1945*, p. 164, Vandergriff. *The Path to Victory: America's Army and the Revolution in Human Affairs*., p. 73

[51] Colin S. Gray, "What Rand Hath Wrought," *Foreign Policy* (Autumn 1971), p. 111, Victor A. Thompson, "How Scientific Management Thwarts Innovation," *Society* (June 1968), 126 – 128

[52] Peter Moskos, "Angels in Blue: The Virtues of Foot Patrol," *The American Interest.* (September – October 2009), pp. 112 – 113, *Wall Street Journal* (20 July 2012)

[53] Vandergriff, "The Specter of Taylorism."

[54] John English, "The Operational Art: Development in the Theories of War," in B.J.C. McKercher and Michael A. Hennessy. *The Operational Art: Development of the Theories of War.* (Westport CT: Praeger. 1996), p. 16

[55]Bungay, "Mission Command: An Organizational Model for Our Time," Bungay, "Moltke – Master of Modern Management," p. 53, Deborah Shapley. Promise and Power: The Life and Times of Robert McNamara. (Boston MA: Little, Brown and Company. 1993), p. 24

[56] *Chicago Tribune* (13 March 1974), *New York Times* (17 October 1972), James Howard Kunstler. *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape.* (New York: Simon & Schuter. 1993): 90 – 91

[57]Peter F. Drucker, "What we can Learn from Japanese Management," *Harvard Business Review* (March – April 1971), pp. 110 - 111

[58] James R. Nagl, "TQM and the Pentagon," *Industrial Engineering* (December 1994), p. 57 Ron Zemke, "A Bluffer's Guide to TQM," *Training* (April 1993), p. 50

[59] Ton D. Barna, "TQL: Not What We Expected," *Marine Corps Gazette* (March 1993), p. 22, Jiro Horikoshi (Shojiro Shindo & Harold Wantiez trans) *Eagles of Mitsubishi: the Story of the Zero Fighter.* (Seattle WA: University of Washington Press. 1992), p. 92, Peter M. Leitner, "Japan's post war economic success: Deming,

quality, and contextual realities." *Journal of Management History* (1999), p. 489, *Los Angeles Times* (25 October 1999), James R. Nagl, "TQM and the Pentagon," *Industrial Engineering* (December 1994), p. 57

[60] *G.* Ronald Gilbert, "Quality Improvement in a Federal Defense Organization**,"** *Public Productivity & Management Review.* (Autumn 1992), pp. 66 – 67, Archester Houston & Steven L. Dockstader. *Total Quality Leadership: A Primer.* (Washington DC: Department of Navy Total Quality Leadership Office. 1997), pp. 11 – 12, Nagl, "TQM and the Pentagon," p. 58, *The Wall Street Journal.* (24 August 1993), Zemke, "A Bluffer's Guide to TQM," p. 50

[61] Chester W. Richards. *A Swift, Elusive Sword: What if Sun Tzu and John Boyd Did a National Defense Review?* (Washington DC: Center for Defense Information. 2003), p. 61

[62] Ibid, p. 62

[63] Barna, "TQL: Not What we Expected," p. 22, Donald E. Humpert, "TQL? You Mean That's Still Around?" *Marine Corps Gazette* (October 1996), pp. 22 -23

[64] *The Wall Street Journal.* (24 August 1993)

[65] Ibid.

[66] G.I. Wilson & Maj. Donald Vandergriff, "Leading the Human Dimensions Out of a Legacy of Failure," in America's *Defense Meltdown: Pentagon Reform for President Obama and the New Congress.* (Washington DC: Center for Defense Information. 2008), pp. 57 - 61

[67] Stephen Brent Appleton. *The US and Canadian Army Strategies: Failures in Understanding.* (Carlisle Barracks PA: Strategic Studies Institute. 2003), p. 2 – 3, Mark E. Catreli, "The Doctrine of Accountability," *Marine Corps Gazette.* (November 1998), p. 58, Dennis C. Tabbernor. *The Aftermath of the Somalia Affair.* (Toronto: Canadian Forces College 1999), p. 4 – 5

[68] Williamson Murray, "Thinking About Revolutions in Military Affairs," *Joint Forces Quarterly* (Summer 1997), p.69

[69] Vandergriff, "The Specter of Taylorism."

[70] William S. Lind, "The Death of the RMA," *On War #224 Defense and the National Interest* (2 July 2007) 'http://www.dnipogo.org/lind/lind_7_03_07.htm' (14 April 2012)

[71] Scott Stephenson, "The Revolution in Military Affairs: 12 Observations on an Old of Fashion Idea," *Military Review* (May – June 2010), p. 38

[72] Cebrowski & Garstka, "Network-Centric Warfare: Its Origin and Future," pp. 28 – 29, T.X. Hammes, "War Isn't a Rational Business," *Proceedings of the US Naval Institute.* (July 1998), p. 22

[73] Hammes, "War Isn't a Rational Business," p, 23

[74] *Army Times* (16 August 2002), *The Guardian* (6 September 2002)

[75] Malcolm Gladwell. *Blink: The Power of Thinking Without Thinking.* (New York: Little, Brown & Company. 2005), p. 118

[76] Bungay, "Moltke – Master of Modern Management," p. 53

[77] Ibid.
[78] Robert R. Leonhard. *Fighting by Minutes: Time and the Art of War*. (Westport CT: Praeger. 1994), p. 119
[79] Ibid., p. 120 – 124
[80] Bungay, "Mission Command: An Organizational Model for Our Time."

# Hellyer and the Unification of Canada's Armed Forces

*Lt. Col. J E M Carey-Hughes Krh, British Army*[3]

*"There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success than to take the lead in the introduction of a new order of things" Machiavelli*

## Introduction

This article uses the experience of the Unification of the Canadian Armed Forces in the 1960s to examine the influence of leadership and management on strategic change, focusing in particular on the actions of Paul Hellyer, the Defence Minister. The paper will begin by establishing the key themes which run through change management models and which should be borne in mind throughout the paper. It will then describe the situation in Canada at the time and demonstrate why change in the Canadian Armed Forces was necessary. The second part of the paper will examine the 1964 Defence White Paper which proposed the reforms, focusing in particular on the events that occurred and the actions and behaviour of the Minister - rather than providing a detailed breakdown of the technicalities of the reforms. The primary focus will be on Unification rather than the more successful Integration as this is where the majority of problems occurred. A brief look at the legacy of this programme and further study of Hellyer's personality will lead to the analysis, where the successes and failures of the overall change programme will be highlighted, using the change themes identified as a yardstick. Finally the paper will conclude by examining the reasons for the failure of Hellyer's policy and what lessons should be heeded by politicians currently looking to reform their Armed Forces.

## The management of change

Considerable literature exists on the subject of Strategic Change. Indeed, the subject has evolved and matured over the past 50 years and thus numerous different theories and models abound. An in-depth analysis is not within the scope of this article, however a few key themes and

[*] Prize Paper of the Baltic Defence College Higher Command Course 2011

concepts need to be highlighted to provide metrics by which to assess Hellyer's endeavours.

Strategic Change itself is generally viewed as so complex that it is virtually impossible to control and therefore it is only the **process** of change that can be managed; change is dependent on its context[1] and as a result there are "no grand blueprints for long-term successes or quick fixes for immediate salvation".[2]

Strategic Change may be approached "either in an all-in-one, big bang fashion, or in a more step-by-step, incremental fashion".[3] The "big bang" approach is likely to be more relevant when an organisation is facing a crisis and immediate action must be taken, irrespective of the disruption caused. The incremental approach is often preferable as it allows building on existing skills, routines and beliefs so that the change is efficient and likely to win the support of those involved.[4]

This support is inextricably linked with overcoming resistance to change and is therefore key.[5] Although effecting Strategic Change may involve structural change in an organisation, the primary task is in fact cultural change - shaping how the people in that organisation change their outlook, attitudes and behaviour.[6]

The table below outlines three well recognised change models. The models are different but a number of overlapping themes relevant to this study are apparent:

| **Kanter et al's 10 Commandments for Executing Change[7] (1992)** | **Kotter's 8 Stage Process for Successful Organisational Transformation[8] (1996)** | **Luecke's Seven Steps[9] (2003)** |
|---|---|---|
| 1. Analyse the organisation and its need for change | 1. Establish a sense of urgency | 1. Mobilise energy and commitment through joint identification of business problems and their solutions |
| 2. Create a shared vision and common | 2.Create the guiding coalition | 2. Develop a shared vision of how to |

| | | |
|---|---|---|
| direction | | organise and manage for competitiveness |
| 3. Separate from the past | 3.Develop a Vision and Strategy | 3. Identify the leadership |
| 4. Create a sense of urgency | 4. Communicate the Change Vision | 4. Institutionalise success through formal policies systems and structures |
| 5. Support a strong leader role | 5. Empower broad based action | 5. Focus on results not on activities |
| 6. Line up political sponsorship | 6. Generate short-term wins | 6. Start change at the periphery, then let it spread to other units without pushing it from the top |
| 7. Craft an implementation plan | 7. Consolidate gains and produce more change | 7. Monitor and adjust strategies in response to problems in the change process |
| 8. Develop enabling structures | 8. Anchor new approaches in the culture | |
| 9. Communicate, involve people and be honest | | |
| 10. Reinforce and institutionalise change | | |

**Fig 1. Three Models for Change Management**

**Urgency** – fostering a sense of urgency will prevent an initiative from stalling, especially when faced with difficult problems; once momentum is gained, it will be harder to derail the process.

**Leadership** – strong leadership and guidance are required from the outset and the team must be carefully chosen to complement each other's strengths and weaknesses; leaders need to be appropriate, credible and

trusted.[10] Kotter warns in particular of the danger of participants with big egos and those he describes as "snakes" who generate mistrust and kill off teamwork.[11]

**Vision** – the proposed endstate or outcome of the change needs to be clear, desirable, imaginable and feasible.[12] It should not be created in isolation but refined and guided by the leadership team.[13]

**Strategy** – the strategy communicates how the vision will be implemented in terms of the ends, ways and means available and provides the top-level guidance for the more detailed planning process.

**Communication** – a vision is of little use if it is not a shared vision; the only way to ensure adequate buy-in is to communicate the vision as widely as possible, in a manner that is simple and explains any potential inconsistencies.[14] Most importantly though, is the need for this communication to be two-way, enabling feedback - it is better to rework things in the short term than heading off in the wrong direction from the outset. If the vision is not accepted then the rest of the process will fail.[15]

**Structures** – the organisation must be adjusted to encourage and facilitate the change.

**Consolidation** – whether it is the quick-wins advocated by Kotter or more long term successes, the changes must be made to take hold. Interim successes should be seized as they provide encouragement which will assist in accelerating the longer term acceptance of cultural change. It must be remembered that cultural change is a gradual process which does not happen overnight.

**Flexibility** – "no plan survives contact with the enemy". Common sense dictates that any strategy or plan must be able to respond and adapt as it progresses, either as a result of actions and events or feedback from those affected or charged with implementation.

Failure to understand and devote sufficient resources to each of these themes is likely to result in failure. As this paper progresses to discuss the events of Unification, these themes should be borne in mind.

## Defence in post-war Canada

As a result of geography and history Canada's Defence Forces are now marginal to security and the Defence Policy essentially serves non-security objectives; this makes it difficult to determine the character and size of the Defence force needed to attain these objectives. In the 1950s and 1960s, defence policy was founded very much in the post-war NATO mindset of "balanced collective forces" whereby a country contributed specialized forces as part of a wider NATO or UN effort.[16]

A previous attempt to unite Canada's Armed Forces in 1922 under command of a single Minister and Chief of Staff had proved to be unworkable from the outset and was abandoned within 5 years.[17] At the end of World War II, the government once again conducted further reorganization which resulted in the creation of common pay scales, legal services, cadet colleges and discipline codes. The Deputy Minister's office was reorganised along functional lines and a Chiefs of Staff Committee was established to promote inter-Service cooperation and coordination.[18] In later years, the medical services were consolidated, along with the postal and chaplain services, with limited success. Despite these changes, there did not seem to be an increase in efficiency or economy – indeed the costs of Defence were spiralling, resulting in a lack of investment in new equipment; the proportion of the Defence budget spent on procurement had fallen from 43% in 1954 to an estimated 13% in 1963/4.[19]

In 1963 the Royal Commission on Government Organization (widely referred to as the Glassco Commission after its chairman J. Grant Glassco) was established to investigate the organisation and methods of government departments to promote "efficiency, economy, and improved service in the dispatch of public business".[20] It noted that "procrastination and inter-service disagreements, amounting to a virtual refusal to accept direction, [had] proved formidable obstacles to progress". The report also criticised the size of the administrative organisations supporting the services and that it was uneconomic to maintain separate organisations covering the common tasks of budgeting, accounting, supply, construction and general administration.[21] The report did however note that the nature of Defence meant that it was unique compared to other government departments and that at times military considerations must take primacy over the management and organisational principles being proposed for other departments. It noted that administration in peace and war is very different

and warned of creating structures in peacetime to save money at the expense of military effectiveness in times of war.[22]

**The new Defence Minister – Paul Hellyer**

The new Liberal Government of 1963 saw the appointment of a new Defence Minister, Paul Hellyer, whose military background was limited to brief service during World War II in the Royal Canadian Air Force before subsequently joining the Army as a private. Hellyer was convinced that Defence was both uncontrolled and out of control, the Armed Forces were barely beholden to the Civil Power and wasted time and money fighting out inter-Service rivalries – if they communicated at all. "It is the issue of who is going to set military policy – the military or the government. They have been unfettered for so long they just can't get used to the idea of taking direction".[23]

Furthermore, Hellyer was also faced with economic problems and wanted to increase the proportion of the fixed budget spent on procurement back to an acceptable level of 25%, this was to be achieved by manpower reductions of 30% in addition to efficiency savings elsewhere.[24] Shortly after arrival in office, he suspended all major procurement programmes since he felt that "policy was being set by the equipment procured" and that future options should not be restricted by early and relatively unconsidered commitment to expensive procurement programmes.[25]
In addition to regaining control over the Services, Hellyer's goal was to develop well-equipped flexible, conventional forces, with the strategic mobility to move them quickly to meet emergencies anywhere in the world.[26]

Hellyer ultimately believed that the only way he could achieve these aims was via the Unification of Canadian Armed forces.[27]

**1964 Defence White Paper**

The 1964 White Paper drew heavily, but selectively,[28] on the Glassco report, which was sadly too subtle in expressing its warning that Defence needed to be treated differently; it was also unable to proffer a suitable approach which would balance "peacetime efficiencies with wartime effectiveness".[29] Hellyer used the report to provide authority and validity to the concepts he was proposing and although he agreed with the assessment of the problem, his proposed solution was radically different.

The paper was the first comprehensive statement of Defence policy since 1947 and cleverly linked Defence objectives to resources and structural elements. It had four primary objectives: a single recruiting organisation; a single basic training organisation; a single basic trades organisation; full integration of the headquarters and commands. Implicit in this was the introduction of modern management methods, the elimination of duplication and ultimately a higher loyalty to "Canadian Forces".[30]
The first step was the establishment of a single Chief of Defence Staff (CDS) and a single Defence HQ[31] within 4 months. The second step was the reorganisation and integration of the field command structure within a year into a structure based on functional commands, reducing the number of headquarters from eleven to six. This paper will refer to these first two steps as Integration.

Hellyer stated that "if in achieving these objectives, a single unified Defence Force for Canada is clearly the logical end result, then such a unified Defence Force will be established".[32] This would be the final third step – Unification - which would only happen after a "considerable time". It was widely perceived that this would require a separate government decision in the future, thus offering the advance opportunity for debate[33]- a view that was encouraged and supported by Hellyer.

It should be noted that the paper did not provide a plan or organisational model, as it was the responsibility of the "Defence Staff to work out the problems"[34]- the added benefit of this approach being that it allowed flexibility to make adjustments as the circumstances dictated, without the shackles of policy.[35]

**Integration**

Even though the appointment of a single CDS was made more difficult by a lack of precision and clear aims,[36] the Integration process was largely seen as being a logical step which was both justifiable and necessary from an administrative and personnel standpoint[37] and to that end was largely well received – there were doubts and clarifications, but these were generally minor.

McLin notes that there was a "striking, if not perfect, degree of concurrence in the goals of this program, even among the Service Chiefs" and that this was enhanced by the fact it was viewed as being a ground-

breaking experiment which might provide a model for other countries to emulate.[38] Service Chiefs sent messages to their servicemen urging cooperation with the government's plans.[39]

The new National Defence Headquarters (NDHQ), as a result of the lack of detail and short timescales, did not have an auspicious start. Within less than four years it had been subject to three major changes, swinging at one extreme from a purely *functional* structure which struggled to account for inevitable *element*[40] specific issues, to the other extreme which was too *element* based and thus failed to provide the *functional* unity that Integration aimed to achieve. The final structure[41]managed to achieve a workable balance of both and was thereafter widely and enthusiastically supported by serving officers,[42] although as will be seen later, failed to account for Canada's geography and thus generated considerable long-term duplication with lengthy parallel lines of communication.

**Unification**

In contrast to Integration, there was no operational requirement for Unification – it was seen as an ill-conceived peacetime construct. The decision to impose a single uniform and rank structure was seen as the ultimate proof that the Minister did not understand the military, and became a rallying point for those who opposed Unification.

In the years before Unification, as Hellyer's true intent emerged, increasingly bitter arguments and debate took place – arguments which were either ignored or dealt with in an adept, albeit slippery, manner by Hellyer, who had managed to portray himself as a champion of progress over the reactionary "Colonel Blimps" in the military. He was arrogantly dismissive of any opponents in the military, irrespective of rank, effectively branding them as anachronistic dinosaurs. He was convinced that much of the resistance was purely out of ignorance or self-interest and Service preservation.[43]

The Chiefs of Staff Committee was kept in the dark about the Minister's plan- their advice was neither sought nor welcomed when it was offered.[44] On occasions he would deliberately circumvent the CDS and the chain of command in order to gain support from elsewhere.[45] Even the officers from Hellyer's Defence Staff, largely picked by the Minister himself, soon

found themselves turning their back on him when asked to write a plan with no foundation or precedent.

Voices of dissent were eliminated – the Chief of the Naval Staff, Rear Admiral Brock was sacked 1964; it was no secret that he held reservations which he had expressed through Service channels[46]. In his own testimony, he pointed out that in other countries Unification had only been suggested by crackpots and discarded[47]. He was succeeded by Rear Admiral Landymore, who having previously been informed by Hellyer that the new system would not be" rammed down the throats" of the military and that the reorganization would be given time to evolve, was informed by the same Minister that "Unification was a fact. It was coming and coming soon. Commanders could either accept it or get out".

As Landymore toured his units during 1965, he found it difficult to provide detailed information on Unification as he had little to give. Communication via the chain of command was minimal and frequently information was "leaked" to the media by a Defence spokesman.[48] In June 1966, Landymore informed Hellyer that Unification could lead to disaster; this was followed 10 days later by an announcement of the "retirement" of the CDS, Vice Chief of Defence Staff (VCDS), Chief of Personnel and the Comptroller General.[49] Shortly afterwards, Landymore was informed that he himself would be involuntarily retired in the future. Subsequent resignations were referred to by the media as the "admirals' mutiny" and within a month, of the thirteen most senior officers in the armed forces, only two had held their present appointments for more than a month.[50] This should have sent alarm bells ringing that there had been a complete breakdown in trust between Minister and the senior officer corps, but Hellyer was in fact overjoyed that the "logjam" had been broken, paving the way for more modern thinking officers to follow[51] - indeed he was reported in the Toronto Star as saying that he "had no intention of letting anyone "even if he is an Admiral" tell the Government how to run the Armed Forces".[52]

At a visit in July 1966 to HMCS Stadacona, the Minister was openly booed over the Unification issue,[53] although he plays this down in his autobiography, stating it was only the officers which had booed him and that their minds had been long polluted by Landymore.[54] Hellyer was clearly too thick-skinned to identify the real issue – namely the depth of

feeling within the Military that had led them to demonstrate such insubordination as to openly boo the Defence Minister?

Hellyer needed a compliant ally as his CDS and duly appointed General Allard, who was not expected to protest too much, so long as he was able to continue to pursue his own personal agenda of championing the francophone cause within the Canadian Armed Forces – a cause which viewed the traditions of the past as being very much associated with the British.[55] Even with a "tame" CDS, Hellyer was still unable to consult and share information, a fact Allard was reminded of in March 1967 when he discovered that the newly redesigned Naval flag he was about to present, had in fact been further changed by Hellyer without any consultation.[56] Unification was finally "introduced" by a political sleight of hand - despite the rising tide of revolt and previous assertions that there would be opportunity for official prior debate. Bill C-243, widely anticipated to cover the details, asserted that Integration and Unification were simply different stages in the same process and that as such, legislation had already been passed and that Unification had already been achieved – this bill was merely tying up the loose ends. The "considerable period of time" thus being only 29 months in reality.[57] Hellyer had achieved his goal.

**Post-unification**

After Hellyer, Unification became a matter of such political pride that successive Liberal Defence Ministers simply reinforced Hellyer's policies. Only in 1979, with the brief change to a Progressive Conservative government, did the Defence Minister establish a task force to examine the merits and disadvantages of Unification; it concluded that with regard to financial savings, increased operational effectiveness, increased flexibility and rapid decision-making, it is dubious whether Unification has achieved the intended goals.[58]

As an example, changing the administrative system in NDHQ from one of command unity to functional unity resulted in long parallel lines of communication and the ability to coordinate only after arrival at the HQ. In 1971, this resulted in more than 700 committees within the HQ.[59] As a result, in the 1970s the command organization shifted to a more workable functional/regional command based system.[60]

Many of Hellyer's non-operational organisations have survived to this day, such as the recruiting group, common training schools, centralized pay etc.[61]

However, Bland asserts that Canada had denigrated "the military way in favour of concepts derived from institutions concerned with bureaucracy and making money"[62]and that ignoring of military advice during Unification was the start of a growing trend. This was echoed in 1972 by Brig-Gen Leslie who warned of a drift towards "too much management, too little command", a trend that continued for another 30 years.[63] This continuing malaise was highlighted by the Somalia "incident" in 1993, when members of the Canadian Airborne Regiment tortured a young thief to death, leading to the subsequent disbandment of the Regiment. Canadian Forces were seen as being poorly led, overtasked, undermanned, underfunded and behind the times.[64]

Canadian Forces are currently undergoing a major transformation programme as a result of the 2005 Defence Policy.

## The Minister

Although a picture of Hellyer's character and methods has emerged, this section will consider his character in more detail, as it was a key influence on his conduct.

Hellyer viewed himself as being a "minister courageous enough to grasp the nettle",[65] however others were less complimentary. In his memoirs, Brock describes Hellyer as being "a young man, ambitious for power, with political clout but little political sense of conscience".[66] He is described as being forthright, self-confident, sly and politically clever[67]- prone to being suspicious and even hostile towards those who would question his goals. Indeed he used a clever series of misdirections to keep his critics off balance - such as referring to reports which he had commissioned but which only he had access to. Many believed that although Hellyer had a vision of where he wanted to go, any debate as to the detail would allow his political enemies to entangle him in the details and thus he insisted that it was only his responsibility to present the concepts, the details themselves would be worked out later by his Staff.[68] Paul Martin, the then Secretary of State for External Affairs noted that reorganisation of the Armed Forces appeared to be somewhat of a consuming interest for Hellyer.[69]

In terms of his political career, Hellyer had aspirations to succeed Pearson as the Liberal leader and Prime Minister. He knew that he had energy and decisiveness and had created a high profile for himself in a department that had a tendency to break careers rather than make them. In his mind, Unification would consolidate his position.[70]

Although there may be no correlation with his abilities as a Minister, it would be remiss not to mention that Hellyer's unconventional views were not limited to Defence. On 3 Jun 1967, he flew into St Paul, Alberta, to officially inaugurate an UFO landing pad.[71] In more recent years, he has revealed his conviction that UFOs exist and indeed claims to have seen them.[72,73]

In later years, Hellyer's political career lacked consistency and ambition outdid principle as he changed parties several times. After his resignation from the Liberals in 1969, he remained as an Independent for two years. After failing to establish a new "Action Canada" party in 1971, he promptly changed his political allegiances and joined the Progressive Conservatives for a number of years before being ousted. He later rejoined the Liberal Party in 1982 before being defeated six years later. In 1997, he formed the Canadian Action Party which continues to exist as a little noticed minority party.[74]

**Analysis**

Hellyer's personality and conduct should now be clear. These will now be analysed against the change management themes highlighted previously.
As discussed earlier, previous attempts at reforming the Services had failed and to that end Hellyer, doubtlessly influenced by his political ambitions and desire for rapid political stardom, was impelled to take the "big bang" approach and tackle the problem with urgency; this is unsurprising considering the circumstances. In these two areas Hellyer succeeded, however in all others he failed.

Hellyer's concept of leadership proved to be an autocratic one. Instead of building a guiding team of complementary strengths and weaknesses, he simply sacked those who questioned his authority and where possible replaced them with somebody who would comply and not speak out. There was no preparation stage or an attempt to shape opinions in advance. As dissent grew, he became even more inflexible and grew

convinced that he was the only one that was right: by stating that "the problems are from the very senior people only"[75] he failed to appreciate that it was in fact their duty to highlight their concerns. Hellyer side-stepped political procedure and alienated and ignored his Service chiefs, rapidly destroying any credibility and trust. It is highly likely that Kotter would include Hellyer in his "snake" category.

The vision proposed by Hellyer was his and his alone, although supported by the Prime Minister. There was no consultation or process to ensure that it was clear, desirable, imaginable or feasible, and therefore no scope for feedback and change. A vision flawed from the outset will be difficult to successfully communicate; this may be why Hellyer purposely avoided adding any kind of strategy, let alone detail to his plan. Despite this lack of detail, the process of Integration was generally successful because the (limited) vision was realistic, familiar and logical and was therefore accepted – the military, in an absence of detail, made the best of the situation and improvised, adapted and overcame. Unification was none of these and therefore in the absence of detail, with disruptive leadership and an inexplicable and undesirable outcome, it is little surprise that the implementation team picked by Hellyer soon turned their backs on him. The announcement of a single uniform and common rank structure demonstrated that he had not only failed to understand the moral component of fighting power, but that he did not appreciate that the three Services were very different for very good reasons: each Service operates in a unique operational environment and as result will always have different strategic perspectives, doctrines, operational roles and missions – to that end, there will always be inter-Service competition.[76]

The structures themselves were of course the key aim of the change process. The Integration process was supposed to establish the necessary headquarters to control the process, however being arranged on purely functional lines failed to appreciate the operational imperative and Canada's unique geography. As a result the headquarters were overburdened with establishing their own internal organization and structure.

At the Defence Council in Dec 1965, the Comptroller-General, Fleury, argued that "it would be premature to take another major leap forward now", while the Chief of Personnel, Dyer, urged an evolutionary approach. Hellyer wanted to press on and was not listening. As a result he missed the

opportunity to capitalise on the success of Integration which would generate a quick win and allow the initial cultural changes to take hold.

The lack of detail in Hellyer's plan, combined with his misdirection over the final intention of Unification enabled him to sidestep any political resistance from within his own party. Regrettably the Prime Minister, who was the one man who should have reined in Hellyer's headstrong charge, was also his closest political ally and had little interest in defence.

## Conclusion

Canada's minimal requirement for Armed Forces to ensure security means Defence issues are not usually high on public and political agendas. Hellyer was an ambitious politician who intended to use Defence as a springboard to greater things. Few politicians had previously had the courage to do what Hellyer intended - developing a Defence Policy based on Canadian needs and interests, reducing costs and tackling three Services which were largely pursuing their own agendas. Unfortunately Hellyer failed to understand that his final vision was neither understood nor desirable, as he tried to impose an administrative based model on an operationally focused organisation. Hellyer failed to appreciate that large scale change creates strong resistance based on anxiety, rumours and suspicion – something which a clear and unambiguous strategy, combined with constant communication are designed to address.

The Armed Forces of many Western Countries are currently undergoing "transformation" aimed at achieving exactly what Hellyer set out to initially achieve, namely the development of "well-equipped flexible, conventional forces, with the strategic mobility to move them quickly to meet emergencies anywhere in the world". Under the sense of security afforded by NATO and at a time of economic crisis, politicians will be more tempted than ever to rush to reduce Defence expenditure to reinforce other, more vote-winning, departments – despite the growing diversification in global security challenges. As has been demonstrated in this paper, large scale change requires careful planning and preparation in order to be successful, activities which take time and funds. It must be recognised that the Military is different to other government departments and as such many of the tempting "management efficiencies" which work elsewhere would be detrimental to operational efficiency - the ultimate military raison d'être. Where an incremental approach to change is

adopted, the Military must be wary of the risk of "death by a thousand cuts", whereby little changes are accepted and go largely unnoticed, however in time, the cumulative effects become debilitating. It is the responsibility of senior officers within the Military to guard against this, otherwise they risk presiding over an ineffective organisation. In order to assist with this, they must endeavour to develop suitable metrics to reflect operational effectiveness and where possible articulate the often intangible issues which are difficult to defend. The need for Joint forces is not the same as the need for Unified forces – there are some areas which can be combined, but the differing nature of the work each individual Service undertakes means that there is ultimately a limit to how far this can go.

It must be recognised that the fundamentals of change are similar in all organisations, irrespective of environment and vocabulary; a suitable change process model should therefore be chosen, resourced and applied.

If he had stopped with integration, Hellyer may have been respected and well-remembered as a Defence Minister[77] but he insisted on continuing with his crusade, ignoring the ever-louder dissenting voices. It is ironic that Hellyer states in his autobiography that "failure to accept change can prove disastrous"[78] and yet he was unable to contemplate change in his own plans.

**Abbreviations**

| | | |
|---|---|---|
| CDS | - | Chief of the Defence Staff |
| NATO | - | North Atlantic Treaty Organisation |
| NDHQ | - | National Defence Headquarters |
| UFO | - | Unidentified Flying Object |
| UN | - | United Nations |
| VCDS | - | Vice Chief of the Defence Staff |

[1] Julia Balogun and Veronica Hope Hailey, *Exploring Strategic Change* (Hemel Hempstead: Prentice Hall Europe, 1999), 2-5.

[2] Andrew Pettigrew et al, *Shaping Strategic Change* (London: Sage, 1992), 273.

[3] Balogun and Hope, *Exploring Strategic Change*, 21.

[4] Gerry Johnson and Kevan Scholes, *Exploring Corporate Strategy (6th ed)*(Harlow: Prentice Education Limited, 2002),536 .

[5] John P Kotter, *Leading Change* (Boston, Mass.: Harvard Business Review Press, 1996), 132-3 .

[6] Balogun and Hope, *Exploring Strategic Change*, 2.

[7] Rosabeth Kanter et al, *The Challenge of Organizational Change: How Companies Experience It and Leaders Guide it* (New York: The Free Press, 1992), 383 .

[8] Kotter, *Leading Change*, 21.
[9] Richard Luecke, *Managing Change and Transition* (Boston, Mass.: Harvard Business School Press, 2003), 33-47.

[10] Baltic Defence College, HCSC Workshop on Leadership and Cooperation, Dr Myriame Bolle, August 23, 2011.
[11] Kotter, *Leading Change*, 59-61.
[12] Ibid., 72.
[13] Ibid., 81.
[14] Ibid., 90.
[15] Ibid., 99-100.
[16] Jon B McLin, *Canada's Changing Defense Policy, 1957-1963: the Problems of a Middle Power in Alliance* (Baltimore: John Hopkins Press, 1967), 195-6, 213.
[17] James A Boutilier, ed, *The RCN in Retrospect, 1910-1968* (Vancouver and London: University of British Columbia Press, 1983), 335.
[18] Boutilier, *Retrospect,* 335.
[19] McLin, *Canada,* 196.
[20] Douglas L Bland, *The Administration of Defence Policy in Canada, 1947 to 1985 (*Kingston: Frye, 1987), 25.
[21] Boutilier, *RCN in Retrospect,* 336.
[22] Bland, *Administration*, 27.
[23] J L Granatstein, *Canada, 1957-1967: The Years of Uncertainty and Innovation* (Toronto: McClelland and Stewart, 1986), 224.
[24] McLin, *Canada*, 196.
[25] Ibid., 194.
[26] Ibid., 194.
[27] Jean V Allard, *The Memoirs of General Jean V. Allard (*Vancouver: University of British Columbia Press, 1988), 262.
[28] Bland, *Administration*, 38.
[29] Ibid., 28.
[30] Daniel Gosselin, "Hellyer's Ghosts: Unification of the Canadian Forces is 40 Years Old – Part One", *Canadian Military Journal,* Vol 9, No 2, http://www.journal.dnd.ca/vo9/no2/03-gosselin-eng.asp.
[31] McLin, *Canada*, 195.
[32] Granatstein, *Uncertainty*, 227-8.
[33] McLin, *Canada*, 199.
[34] Bland, *Administration*, 39.
[35] Daniel Gosselin and Craig Stone, *"From Minister Hellyer to General Hillier: Understanding the Fundamental Differences between Unification of the Canadian Forces and its present Transformation"*, Canadian Military Journal (Winter 2005 – 2006): 7.
[36] Douglas L Bland, *Chiefs of Defence: The Government and the Unified Command of the Canadian Armed Forces* (Toronto: Canadian Institute of Strategic Studies, 1995), P71.

[37] Allard, *Memoirs*, 253.
[38] McLin, *Canada*, 199.
[39] Granatstein, *Uncertainty,* 226.
[40] The term 'Element' replaced the former terminology of 'Service'.
[41] Bland, *Administration*, 159.
[42] Vernon J Kronenberg, *All Together Now: The Organization of the Department of National Defence in Canada 1964-1972* (Toronto: Canadian Institute of International Affairs, 1973), 68.
[43] Paul Hellyer, *Damn The Torpedoes: My Fight to Unify the Canadian Armed Forces* (Toronto: McClelland and Stewart, 1986), 177-8.
[44] Bland, *Administration*, 50.
[45] Ibid., 51.
[46] Jeffry Brock, *The Dark Broad Seas. Memoirs of a Sailor* (Toronto: McClelland and Stewart, 1981), 337.
[47] Granatstein, *Uncertainty*, 240.
[48] Boutilier, *Retrospect,* 340.
[49] Ibid., 340.
[50] Ibid., 341.
[51] Hellyer, *Torpedoes*, 163.
[52] Ibid., 165.
[53] Boutilier, *Retrospect*, 341.
[54] Hellyer, *Torpedoes*, 180.
[55] Allard, *Memoirs*, 254.
[56] Ibid., 267.
[57] Bland, *Administration*, 49.
[58] Ibid., 193.
[59] Ibid., 183.
[60] Daniel Gosselin, "Hellyer's Ghosts: Unification of the Canadian Forces is 40 Years Old – Part Two", *Canadian Military Journal,* Vol 9, No 3, http://www.journal.dnd.ca/vo9/no3/04-gosselin-eng.asp.
[61] Ibid.
[62] Bland, *Administration*, 210.
[63] Gosselin, Ghosts Part Two.
[64] David J Bercuson, "Up From the Ashes: The Re-professionalization of the Canadian Forces after the Somalia Affair" (presented at "The Decline of Citizen Armies in Democratic States: Processes and Implications", a conference organized by the Begin-Sadat Center for Strategic Studies, Bar-Ilan University, Tel Aviv Israel, June 18-19, 2008), http://www.journal.forces.gc.ca/vo9/no3/06-bercuson-eng.asp
[65] Hellyer, T*orpedoes*, 214.
[66] Brock, *Memoirs*, 273.
[67] Bland, *Administration*, 37.

[68] Ibid., 36.
[69] Ibid., 37.
[70] Granatstein, *Uncertainty*, 233.
[71] Alberta Online Encyclopedia, "UFO Landing Pad", Heritage Community Foundation, http://wayback.archive-it.org/2217/20101208164807/http://www.abheritage.ca/stvincent-stpaul/st_paul/community_UFO_en.html.
[72] Paul Hellyer, Speech at National Press Club, Ottawa, Canada, September 27, 2010, http://www.youtube.com/watch?v=RGyFWyNuF3s.
[73] Daily Mail. "'I believe in UFOs... and I've seen them': Former Canadian defence minister accuses American government of cover-up," Mail Online, February 26, 2011, http://www.dailymail.co.uk/news/article-1360737/I-believe-UFOs--Ive-seen-says-ex-defence-minister-Paul-Hellyer.html#ixzz1cOYsTZkV.
[74] Andrew Moran, Inside Canada's Political Parties: The Canadian Action Party, *Digital Journal*, http://digitaljournal.com/article/299809.
[75] Granatstein, *Uncertainty,* 235.
[76] Gosselin, Ghosts Part Two.
[77] Granatstein, *Uncertainty*, 241.
[78] Hellyer, *Torpedoes*, 178.

# NOTES