Baltic Security and Defence Review

Volume 13, Issue 1 2011

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

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

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 Evolution of the Security Notion and its Influence on the Concepts of Armed Forces Employment

By Major General (ret.) Krzysztof Załęski, PhD[*]

The contemporary concept of security and its form – both the actual and the desirable one – will be the subject of debates and scholarly theses for a long time to come because as the international security environment develops the security concept will consequently evolve. This principle can clearly be seen in recent events.

The security model we will try to attain in the future will be quite different from the one we knew in the second half of the 20th century and also different from the security model that is prevalent today. There is little doubt the authority of the state system that treats the state as in the traditional Westphalia model-- as a "sovereignty/unlimited power" and "autocracy"[1]—is a model that largely belongs to the past. The contemporary state is a scene of various political and social relations and approaches. Indeed, the armed forces have not managed to resist the effects of these relations. Given these key factors then the following questions are in order: What is the future of the armed forces? What future form should the armed forces take? And what are the key requirements for the armed forces that will make them effective tools to react to the current security threats?

It is generally emphasized in the literature on this topic that the era of the classical war threats, when mass and well armed and trained armies stood facing each other, is generally past us today. Why is this so? This has happened because the major threats and the conditions surrounding the threats of conflict have changed considerably. Today the threats and

[*] Krzysztof Załęski, PhD is a retired major general, Polish Air Force and also holds a PhD from the National Defence Academy. Devoted his professional military service mainly to the air force where he dealt with the issues of reconnaissance and air force employment in operations. He is the authors of numerous research studies and articles on defence strategy, security of the state, and air force employment in operations.

conditions are essentially of a different nature than before. In our time the threats and conditions are more asymmetric, while the essence of a conflict are various indirect actions made to avoid an enemy's strong points and to attack his vulnerabilities that are usually unprotected and treated as the so called soft targets[2].

Asymmetric threats include, first of all, terrorism and organized crime. But the current threats also include the potential use of weapons of mass destruction by various nonstate entities. The current threats also encompass various threats via information technology (information technology war or information war). Ulrich Beck calls all such terrorist groups "new global actors deprived of territorial and national roots, nongovernmental violence organizations."[3]

The activities of terrorist groups led to a situation where it is increasingly more difficult to observe the boundary between defensive and offensive operations. This is a relatively new phenomenon for the regular armed forces because they have to face network actors – i.e. the terrorist groups – who can undertake offensive actions in order to defend their values. Or these network actors may act in self-defence at the strategic level by attacking military and social targets at the tactical level as a means of counteracting the influence of cultures and ideologies alien to them.[4] In a similar manner we have to consider the case of cyber terrorism, which is also a phenomenon between attack and defence, although it seems to have more disruptive than destructive features.

The blurring of the hitherto existing boundaries of peace and war operations will undoubtedly cause helplessness and paralysis of the traditional hierarchical national and military structures which for many years were developed and prepared to execute traditional military tasks resulting from the assigned areas of responsibility.

Most often the network structures are indicated as the main source of threat to contemporary civilisations. As it is aptly noticed among the fundamental characteristics that shape strategic concepts of the armed forces employment[5] are: (1) operations and coordination of the network elements are not formally and hierarchically arranged, but emerge or change their subordination depending on the current needs and requirements related to the execution of a specific task; (2) networks are

characterized by dynamism in creating and breaking informational relations, and frequently the scope of such relations extends beyond the parent organization. This enables the tracks of the enemy activity to vanish if they cross international borders; (3) structural connections (internal and external) do not result from organizational activities, yet are the effect of common standards, values, interests and mutual confidence. These values can include a common enemy, ideology, ethnic descent, religion, and so on.[6]

The determinants presented here have led to the transformation in the way that security is perceived. In a similar manner, the scope of contemporary conflicts as well as the activity of terrorist groups have pushed the evolution of another completely new term, i.e. the "network war." This term is frequently identified with an emerging form of conflict, one less intense than the traditional conventional war, but equally dangerous in its ability to affect society.

Anonymous protagonists[7] of world terrorism make use of the network organization forms and its doctrines. Their strategy and technology are adjusted to the needs of the information era.[8] An excellent example of a network war is the current operation in Afghanistan. If the operation is not controlled by NATO forces then the armed actions of the opposition there could move directly into the forum of Europe, and the effects of this would be completely unpredictable in terms of regional security. It is beyond any doubt that this scenario provides the grounds for the international community to reinterpret the rules of armed interventions, especially the right to self-defence, and looks at means of taking action in the cases of imploded or dysfunctional nations.

Therefore, given this context, how should we approach the problems of national security? The large scope of the understanding reflected by the term "national security" does not allow a narrow scientific definition or any single universal definitions or one universal model to be employed.

However, **national security** is most frequently defined as a certain state of a nation when the basic factors are identified in various ways: (1) As the *state of balance* between a threat which emerged in effect of a potential conflict and the defence potential[9]; (2) As the *protection of a nation and its territory* against a physical attack. This includes the protection – by various

means – of vital economic and political interests which, if lost, could threaten the vitality of the nation's essential values[10]; (3) As the *state of social consciousness* in which the *existing threat level* does not arouse either the anxiety or fear that the recognized values can be maintained and furthered under the current defence capabilities[11]; (4) As the state of a society identified by the ratio *of the defence potential quantity* available against the scale of the threats[12]; (5) As *ability of a nation to protect its internal values against external threats[13]*; (6) As a common term encompassing both national defence and foreign relations, and particularly the conditions related to: a) *military or defence predominance* over any foreign nation or group of nations; b) mutually advantageous foreign relations; c) a state of defence enabling *to put up effective* resistance to enemies and destructive internal or external actions, overt or covert[14]; (7) A state achieved when the *organized defence and protection* against external and internal threats is effective as identified by the defence potential to the threat scale ratio.[15]

It is the author's opinion that the analysis of the present notional system explicitly indicates that, irrespective of the adopted definition, ***national security*** *as a system can be considered 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[16]*.

Taking into account the definition above, it should be noted that the available subject matter literature lacks an ***unambiguous notional differentiation between the national security system and the state's security system.[17]*** The term "*national security" can be treated as a term equivalent to the term "state's security."* It seems that such approach is not a serious conceptual malpractice because this interpretation can be also found in various official documents to include the National Security Strategy and documents of the National Security Office.

The evolution of the international security system shows that the creation of a new international order is a consequence of the turning point of 1989 and the following years.[18] Its effect at the international level[19] was the emergence of one new hegemonic leader in the world politics as well as a few smaller international parties with regional, and above regional, ambitions to reach the status of world power.

Under the new conditions and determinants, the strategic dilemmas that the nations have to face today are quantitatively and qualitatively disparate from those prior to 1990. The new conditions have a greater influence on changes in the international security environment that make the environment today more dynamic in its nature and more difficult to predict.[20] The widespread globalisation of the threats in the post Cold War order has transformed their character into a trans-border one. Therefore, it can be noted that threats today can grow more quickly and spread to new areas irrespective of geographical and territorial limitations[21].

The problems associated with security, and the challenges and threats to the states have become increasingly interwoven and linked with each other. As R. Hall and C Fox emphasize, *"It is no longer possible to separate terrorism from washing dirty money, or drugs, or smuggling-related organized crime."* In a similar way it is not possible to conduct war against one phenomenon exclusive of another phenomenon[22].

In view of these conditions, the process of taking a decision about the use of the armed forces in a contemporary security environment[23] is subject to a particularly stringent judgement made by the public opinion. It is a political process that is hedged with various conditions that often have little in common with the "traditionally defined" military matters. However, once such decisions to apply military force have been made then the society is likely to expect a "miraculous" solution. But these are rarely attained as quickly as the initial success of the American campaign in toppling the Taliban in Afghanistan in 2001.

An analysis of the Washington Treaty[24] indicates that, in order to achieve more effectively their security goals, the parties to the treaty will *maintain and develop the collective ability to repel an armed aggression.*[25] This provision can be perceived in two ways: **first**, that one's own security must be safeguarded using one's own resources and forces; **secondly**, that security is an expression of jointly developed defence efforts.

In reference to the thesis presented here it is worthwhile to note that the perception of self-reliance is the basis of a rational defence policy of any nation-- even under conditions of an alliance or coalition. The guarantor of this defence policy could be a powerful army, an efficiently functioning state machinery, or a highly developed defence education system,[26] an

economic-defence potential, and a prepared society conscious of its obligations. All these factors considered together from a synergic perspective constitute a proper defence potential. Its aforementioned elements could be extended to include diplomacy, geostrategic location, and in the age of globalisation and information revolution, also the so called GLOBINFO environment[27].

After the collapse of the bipolar power system the United States of America remains the only hegemonic leader of the world politics that simultaneously retains absolute predominance in four main security areas: (1) In terms of the military aspect it is a superpower state on an unprecedented worldwide scale; (2) In terms of the economic aspect – despite a worldwide economic crisis – the Unites States remains the main motor force behind the world economic development, even if China, Russia, Japan or Germany sometimes confront US with difficult challenges. Though these nations are predominant in one or other areas, none of them has all other indispensable indicators of a world superpower; (3) The US maintains total predominance in the area of the most sophisticated technology and; (4) Enjoys – so far – an unrivalled attractiveness as a modern democratic state relatively free of prejudice.[28] This gives the United States a strong position and unquestionable political influence that no other international body – so far – can rival.[29]

The new strategy, first implemented by the United States within the framework of the "war against terrorism," has been based on two basic assumptions. First of all, a terrorist attack is examined in terms of aggression, which explains employment of an armed force (a military strike), and not only as an action to be undertaken by law enforcement bodies. Secondly, the new strategy has been based on the rule of advance preventive actions, that is to say the capabilities to locate and attack the enemy before he can make an attempt to execute his planned strike. The strategy has been officially formulated and issued by the White House in its "Terrorism Countering Strategy" in which it is clearly stated that America "is at war."[30]

The outbreak of the war in Afghanistan and the nature of the attacks carried out by terrorists in the Philippines and Yemen provide — as expressed by A. Bienczyk-Missala and P. Greniach — a clear signal that, "at the present countering terrorism is to be the responsibility of the

military forces and not, as it was before, the police. Cooperation between other nations to conduct a fight against terrorism no longer means just cooperation on criminal matters, but also the creation of new military alliances or making use of the existing ones (NATO)."

S. Koziej calls the terrorism-related problems "the grey area of security." This is a completely new form of conflict in which – contrary to a classical conflict – the target is not the enemy forces, but their surroundings. However, as observed by General Professor B. Balcerowicz, the current armed forces are increasingly more oriented towards the third indirect state, also called the crisis state. In the theory and practice of strategy Gen. Balcerowicz points out that most attention is devoted to responding to a crisis. In consequence, such notions as peace operations or crisis operations are used, which denote operations below the threshold of war,[31] but are still carried out within the framework of a military response.

The events at the beginning of the 21st Century seem to confirm Paul Q. Hirst's thesis that humankind seems to be entering a century of conflict. The euphoria that arose after the end of the Cold War has faded away with the realization that old conflicts have been replaced by new conflicts and challenges. This has been precisely defined by Ulrich Beck as the "society of risk." Today we speak more often about a "worldwide society of risk which applies the cosmopolitan risk logic."[32]

The latest general strategic review of defence requirements in the *Quadrennial Defence Review*[33] conducted in the United States shows that an attempt has been made to find the balance between the requirements of the armed forces and the financial capabilities of the United States. The review report identifies two goals for the armed forces: (1) To keep a balance between the requirements of current conflicts and the future threats; (2) To maintain the structures of the reform process in order to ensure an adequate level of procurement and modernization in the armed forces' equipment.[34]

The North Atlantic Alliance cannot keep up with the United States in defence matters. This is mainly due to the disparity of resource allocation between the US and the European partners. Defence expenditures in the USA amount to approximately $1835 US dollars per citizen per year, while the European states' NATO members provide an average of only $546 US

dollars per citizen, and in Poland only $222 US dollars.[35] Because of this, Poland and the other European nations are dependent on a multidimensional allied cooperation. It confirms the thesis that we cannot speak today about risk management in terms of one nation.[36] International coalitions are, and will continue to be, necessary. This is especially important when one considers that coalition thinking can be the driving force of transformation among the existing organizations (for example NATO), while on the other hand it can serve to strengthen the integration processes of the developed structures (for example the EU)[37].

In case of a large scale conflict breaking out we cannot rely solely on our own armed forces. Thus, defence planning must be an allied element. According to allied expectations, we have to take into account that the Republic of Poland's Armed Forces must strive to maintain their involvement at a level required by the Alliance.

Looking at the challenges facing the armed forces at the threshold of the 21st Century it is noteworthy to quote the words of S. Koziej who argues that contemporary security is opposed to the way that it was perceived in the past and has become more: *informative, asymmetrical, networked and integrated*[38] and is mainly characterized by "information, asymmetry, networking and integrity (comprehensiveness) – these are the most characteristic and perhaps the most important features of modern security."[39]

How is this translated into the doctrine and substance of the Western armed forces? To begin with, it is necessary to explain the manner in which changes are perceived in the security environment. In the case of dissemination of information it should be noted that this notion is nothing less than the reality of an information revolution among the armed forces. In a wider sense this relates to the creation of a vast number of information links that leave their mark on all aspects of contemporary military activity.

Asymmetrization, as the second key factor-- the opposite of symmetrization in international relations.[40] This is caused by the political revolution that broke out as a result of the demise of the bipolar world. Asymmetry can be found everywhere where problems of countering terrorism are considered, or where the so called bankrupt or bandit nations

are the objects of international operations. Networking as a phenomenon is applicable to the rules by which terrorist networks function and, if examined in a global context, are increasingly perceived as an equivalent force in an informal sense with the superpowers in some aspects of the international arena.[41] Another part of this theme, integration, is the consequence of perceiving the current problems from the specialist military dimension of security and through the civil-military aspects of countering military threats as part of a contemporary integrated national and international security system.

So how do the notions presented relate to the armed forces? Despite the complexity of the character of the contemporary security environment,[42] if we refer to the armed forces we should also focus on the future strategic planning scenarios that will probably remain unchanged. These will be associated with: *identifying threat sources and determining the enemy's vulnerabilities; surveying the intent of his actions in order to collect a maximum amount of information; paralyzing the enemy's actions by gaining an advantage over his own information system; developing concepts and alternative scenarios concerning one's own mode of operations; executing precise pre-emptive attacks with the use of robotized combat systems and assets; stabilizing the situation after neutralizing the armed forces and containing the conflict.*

Considering the issues noted above, it can be assumed that the armed forces in the perspective of the next fifteen to twenty years could be characterized by: *multidimensionality of the operations space that extends beyond the air – sea – land area; the conceptual dominance that allows one to achieve information dominance over the material tools of combat; the precision of impact that is achieved as an effect of the wider application of precision strike assets; digitalization and high-tech implementation in the battlefield; flexibility in responding at the strategic level which is achieved by the increased manoeuvrability of one's forces'; minimizing the employment of assets in favour of precision strike precision; the greater robotizing of the battlefield as the number of unmanned combat platforms and specialist platforms capable of operating in any environment are increased.*

Do our armed forces have such features? Certainly not – at least for not all of them. Therefore, to sum up this line of thought it is worthwhile to mention once again the nonexistence of logical dependence between the quantitative size of the armed forces and their adaptation to the challenges of the contemporary national security environment.

[1] A. Zaremba, B. Zapała, (ed.), *Security Dimensions on the Threshold of the 21st Century. Between Theory and Practice* (Toruń: A. Marszałek, 2010) p. 14.

[2] Ibid. p. 16.

[3] Ulrich Beck, *Society of Risk*, (Warsaw, 2002) p. 114.

[4] The situation in Afghanistan indicates that this exact phenomenon is related to the means of attacking convoys and military posts in order to achieve military goals, i.e, to force foreign troops to withdraw from Afghanistan.

[5] A. Zaremba, B. Zapała, p. 17.

[6] Ibid. pp. 17 & 18.

[7] Protagonist – a term of Greek origin, in the theater of ancient Greece he was the main actor, the most outstanding actor among the actors' team, or in the play.

[8] A. Zaremba, B. Zapała, p. 18.

[9] W. Stankiewicz, *National Security Versus Non-armed War* (Warsaw: Studium, 1991) p. 73

[10] M.T. Taylor ed. ., *American National Security: Policy and Process*, (Baltimore, 1981) p. VII.

[11] C. Rutkowski, *Security and Defence: Strategies – Concepts – Doctrines*, (Warsaw, 1995) p. 30.

[12] *Glossary of Basic National Security Terms* (Warsaw: AON, 2002) p. 6.

[13] *The State's Foreign Policy*, (Warsaw: 1992) p. 242.

[14] *Dictionary of Military and Associated Terms* (Washington: 1987) p. 242.

[15] Ibid p. 141; and *Glossary of terms* ….

[16] The author's own study based on the presented definitions.

[17] *Dictionary of Military and Associated Terms p. 173 and Glossary of terms* ….

[18] Sł. Zalewski, *Political Security of the State* (Siedlce: A.P., 2010).

[19] R. Kulczycki et. al., *Policy and Strategy and the Republic of Poland's Security System in the 21st Century*, (Warsaw: AON, 2004) p. 16.

[20] Chances – Elements of the Challenges Volume Influencing the Fundamentals, Progress and/or Results of Our Actions Assessed as Positive, Facilitating and Accelerating. The same quoted above publication.

[21] Hybrid Threats – Hybrid threats are usually of a single attack nature, but are much more difficult to counter and are more dangerous. It has been noticed that attacks are more often directed against institutions and financial prosperous Internet users.

[22] C. Fox, R. Hall, "Rethinking the Security Issue," *NATO Review*, Winter 2001/2002, p. 7.

[23] M. Kozub, *The Strategic Security Environment in the First Decades of the 21st Century* (Warsaw: 2009) p. 5 "Many of the things surrounding us, although incomprehensible phenomena, could be more easily understood if we knew how to look in a new fresh way at the insane speed of changes which sometimes alter reality as in a crazy kaleidoscope. … it is a new sickness, something like being paralyzed by the future, (…) it is a SHOCK OF THE FUTURE", quoted from A. Tofler, *The Shock of the Future*, (Warsaw, 1998).

[24] The North Atlantic Treaty ratified in Washington, DC, on 4 April, 1949 (*Law Gazette* dated 19 October, 2000).

[25] Article 3 "In order to more effectively achieve the goals of this Treaty, the Parties to the Treaty, each individually and all collectively, by constantly and effectively providing self-help and mutual assistance, will maintain and develop their individual and collective ability to counter an armed attack."

[26] The system of defence education should be based on an effectively functioning modern military education which should take over part of educational tasks within the defence system in preparing staff for the military and non-military system. The military educational system currently undergoes a deep legal, structural and factual metamorphosis so it seems to be better prepared to execute educational tasks both in the military and non-military area.

[27] Koziej St. – the GLOBOINFO term is used to characterize the contemporary security environment which is based on global relations of information societies.

[28] Koziej St., *Strategic Problems of Global and EuroAtlantic Security*, (Warsaw, 2009) p. 29.

[29] Brzeziński, Z., *The Great Chessboard* (Warsaw, 1997) p. 9.

[30] A. Zaremba, B. Zapala, , (ed.), Security Dimensions on the Threshold of the 21st Century. Between Theory and Practice (Toruń: A. Marszałek, 2010) p. 24.

[31] Ibid.

[32] Ibid. p. 24

[33] Final report promulgated in February 2010, made available on internet web site http://www.defence .gov.qdr/images/QDR as of 12Feb10 1000.pdf, 29.10.2010, hrs 19.00.

[34] Final report promulgated in February 2010, made available on internet web site http://www.defence .gov.qdr/images/QDR as of 12Feb10 1000.pdf. Executive summary, 3010.2010, hrs 13.20.

[35] Statistical data from MOD budget department for 2010 (Poland's defence expenditures in comparison to other NATO nations), www.bip.mon.gov.pl/pliki/file/wersja%20polska.ppt, 26.09.2010, hrs 18.00.

[36] J. Pięta, B. Pruski, *Global Society of Risk [w] Contemporary Security Dilemmas – Theory and Practice*, (Warsaw: Marshal Józef Pilsudski WSBiO, 2009) p. 229.

[37] R. Szeremietiew, "The Republic of Poland's 2007 National Security Strategy – Limitations and Vulnerabilities."

[38] S. Koziej, Speech at a scientific conference at the National Defence Academy on 17th November 2010, "The New Quality of Security at the Threshold of the 21st Century –official web page of the National Security Office, www.bbn.gov.pl, 15.01.2011.

[39] Ibid.

[40] The collapse of the bipolar world in which all security problems, starting from threats, were subordinated to symmetrical bipolar relations through the adopted strategies and applied security means. In our time, the asymmetrical relations are of a greater significance and they are perceived in many respects by the method and believed in values, magnitude, structures, operating doctrines, etc.

[41] S. Koziej, quotation, speech.

[42] St. Koziej, Allied Dilemmas …, quoted publication, p. 78.

An Historical and Political Overview of the Reserve Forces of the two Southern Rim Baltic Sea Countries at the Beginning of the Twenty-first Century

By Colonel (Retired) Milton Paul Davis[*]

> NATO's current citizen-soldiers will be the basis for the new structures of reserve forces which will, in conjunction with relatively small groups of professional military women and men, provide security in the next century. … A new generation of Reservists - perhaps not only from the West, but from Central and Eastern Europe as well, will take the places of the conscripts and the voluntary reserves of the last three decades.[1]

Since the end of the Cold War in 1989 there have been dramatic changes in central and north-eastern Europe, which have affected security in the Baltic Sea Region. These changes have brought great reflection within the ten North Atlantic Treaty Organization (NATO)/European Union (EU) countries in the Baltic Sea Region of Europe. These reflections have been concentrated on the defence force structures that were developed to meet the security challenges of the Cold War.

Armed forces reserve and home guard were key elements of Cold War defence planning and organization of some countries surrounding the Baltic Sea. Are the reserve and guard forces still relevant to the

[*]Milton Paul Davis retired from the Active Guard/Reserve (AGR) program of the US Army in June 2002 as a Foreign Area Officer specializing on Europe (FAO-E) with the rank of colonel (strategic intelligence), having taken a leading role in the development of the Military-to-Military program between the Maryland National Guard and the Estonian Home Guard [*Kaitseliit*]. He graduated from the U.S. Army War College with one of the 1999 Army Foundation Writing Awards for research about the Baltics, and is a PhD scholar at Tallinn University. He is also Executive Director of the Maryland / Estonia Exchange Council (MEEC), a non-profit group. He has previously published two earlier articles about the Reserve and Home Guard forces in the Baltic Sea Region of North Central Europe [In 2006 concerning the three Baltic States (in a different journal) and in 2008 about the five Nordic countries (in this journal)].

contemporary security situation? This paper will overview the reserve and guard situation in Germany and Poland, the two southern rim Baltic Sea countries, by first explaining the role of the reserve and guard in the two basic defence models available: "total or territorial defence" and "collective defence." Second the paper will look into the future reserve systems in Germany and Poland. Finally the conclusion will show the relationship of these reserve systems to NATO and the EU and the implication of the relationship to the present security situation in north-central Europe.

The dramatic changes in the security situation with the end of the Cold War have been most evident in Germany and Poland's near neighbours, the three Baltic States of Estonia, Latvia, and Lithuania. Less than twenty years ago, these countries were not only behind the Iron Curtain and inside the Soviet Union, but also were the location of Soviet operational and strategic forces that had a menacing offensive posture towards Western Europe including West Germany. Today the Soviet military build-up in the three Baltic States is gone and the three countries are not only free and independent, but have maturing market economies. In 2004 all three countries joined the EU and NATO.

The changes in Europe with the end of the Cold War are not only evident in the three Baltic States, but are also very noticeable in other parts of Europe. Poland is no longer a member of the Warsaw Pact, but is now a member of the EU and NATO, and Germany is no longer divided into two countries. Consequently, with its geographic location the absence of the menacing activities of the Cold War have had a direct impact on the countries of the Baltic Sea Region.

The key to future cooperation within northern Europe is self-defence starting with a military that is credible to both friends and potential enemies. If the countries of the Baltic Sea Region desire help from other countries including NATO members, they need to be able to hold off the enemy at least long enough for that help to arrive. To restrain the enemy with limited budgets requires both a small professional military and a force that can expand the small military rapidly upon mobilization. To make this concept successful, a well-organized reserve and guard system is essential.[2] The reserve and guard system is an integral part of the "total or territorial defence" which is a model (sometimes called the Finnish-Swedish Way or

the Swiss Method). The concept is to have the whole country involved in its defence, not just the military.[3]

In total defence, business, industry, and local government, for example, are all involved in integral plans on how to defend the country. Local armed and non-violent actions are employed to help the security of the country. It is not just a military issue, but also a national issue.[4] This defensive strategy of "denial" and "total defence" can be adapted to the regional conditions of the local geography and can be summarized as follows: "…A great power aims at a swift military victory that forces the defender to capitulate militarily and surrender politically. Small countries must deny the aggressor its objective through extended, small-scale actions. They must mobilize, at short notice, reasonably well-equipped forces. Total defence also includes passive resistance by the civilian population."[5]

Table 1:
The ten EU/NATO countries of the Baltic Sea Region of Northern Europe

NATO	EU	Country	Size (sq kilometres)	Size (sq miles)	Population of country
Y	Y	Denmark	43,069*	16,629*	5.4 m.
Y	Y	Estonia	45,227	18,370	1.35 m.
N	Y	Finland	338,144	130,119	5.2 m.
Y	Y	Germany	357,050	137,691	82.5 m.
Y	N	Iceland	102,952	39,768	309699
Y	Y	Latvia	65,786	25,400	2.3 m.
Y	Y	Lithuania	64,445	25,174	3.4 m.
Y	N	Norway	324,219	125,182	4.6 m.
Y	Y	Poland	312,683	120,727	38.6 m.
N	Y	Sweden	449,793	173,654	9 m.

*Does not include Greenland and the Faeroe Islands.[6]

In a well-developed total defence system, standby reserves allow both active and reserve units to have the ability to grow when necessary in a rapid and organized fashion. For example, platoons become companies and companies become battalions, etc. This can be done by a conscript system that trains most of the adult male population to be ready to serve when needed.[7]

> The conscript system of most countries, using the total defence concept, has the troops on active duty for approximately one year. At the end of that time a few of the conscripts volunteer to stay on active duty or to join the home guard. But the majority become members of the reserves with some becoming part of organized units and others just ready for call up upon mobilization. Most countries using these concepts also have a system to provide these reserves some refresher training every few years.[8]

Another model does exist from the total concept, and this is the model of "collective defence" which has been the main concept of NATO.

> Collective defence is normally institutionalised, by a treaty and an organization, among participant countries that commit support in defence of a member country if it is attacked by another country outside the organization. NATO is history's most famous collective defence organization. Its Article V asks, but not fully requires, members to assist another member under attack.[9]

Before the end of the Cold War, European countries, which were not members of either the Warsaw Pact or NATO, mainly employed territory defence while the members of NATO employed a combination of territory and collective defence. Today with the EU developing its own defence initiatives and NATO reaching out to all of Europe, collective defence is becoming more important and, as the Supreme Allied Commander, Europe (SHAPE) has stated: "NATO has transitioned from a defensive alliance to a security focused alliance."[10]

The questions remain, are the German and Polish forces credible and how do the political leaders see their use? If a force is not credible, it will not deter the enemy. "The greater reliance on Reserve Forces in future defence arrangements is an attractive alternative for political leaders concerned about defence expenditures… The cost of Reserve Forces is a fraction of the cost of … Active Forces. Reserve Forces constitute … a credible deterrence (and) a stabilizing and less provocative element to an opposing international coalition."[11]

One key element in most of Europe is the non-active duty armed forces of the Home Guard units. A few countries without an official Home Guard have part of the reserves function like a Home Guard: Finland being an example of this concept. Home Guard units in most European countries that have a Home Guard are similar to the US National Guard or British Territorial Forces.[12] In most European countries the Home Guards (HG) are very professional and are closely associated with the regular forces. The HG units are completely filled with volunteers, are attached to the local community and are frequently aligned with the regular military in training, uniforms, chain of command, etc. At the same time, they have a paramilitary function to perform as auxiliary to the local police/fire/emergency responders and their primary mission in time of total war would be to conduct unconventional (partisan/guerrilla) warfare in conjunction with the regular military forces.[13]

The home guard, recruited in local areas, provides great advantages compared to active duty or reserve forces that are not recruited locally. In the home guard troops are:

a. Spread all over the country (which allows a very rapid mobilisation time);
b. Knowledgeable of the local areas (both geographical and societal);
c. Volunteers: commanders and soldiers are always willing, committed and motivated;
d. Deeply rooted in the social fibre of the society (almost a national popular movement);
e. Financially very reasonable to keep on stand-by; and
f. Bring many civilian acquired skills to the units.[14]

"Most of the armies [militaries] of NATO are organized with a mix of active and reserve forces. The size, composition, and the degree of mix is usually the result of a nation's perception of the ... threat, 'out of area' commitments, and (important) budgetary constraints."[15] Even Iceland with no military tradition is considering the development of a "National Guard" to aid its armed special police units now that US forces are no longer stationed in Iceland.[16] As the quote above shows, NATO's use of reserve forces allows countries to use models, such as the total and collective defence models, for their reserve forces. The following sections will comparatively examine the guard and reserve structures in Germany and Poland.

Germany

As Europe's largest economy and second most populous nation (after Russia), Germany is a key member of the continent's economic, political, and defence organizations. European power struggles immersed Germany in two devastating World Wars in the first half of the 20th century and left the country occupied by the victorious Allied powers of the US, UK, France, and the Soviet Union in 1945. With the advent of the Cold War, two German states were formed in 1949: the western Federal Republic of Germany (FRG) and the eastern German Democratic Republic (GDR). The democratic FRG embedded itself in key Western economic and security organizations, the EC, which became the EU, and NATO, while the Communist GDR was on the front line of the Soviet-led Warsaw Pact. The decline of the USSR and the end of the Cold War allowed for German unification in 1990. Since then, Germany has expended considerable funds to bring Eastern productivity and wages up to Western standards. In January 1999, Germany and 10 other EU countries introduced a common European exchange currency, the euro.[17]

Today Germany is considered as part of the west, but its long history of being on the edge of the east and never really part of "Roman" Europe, allows Germany to function as the true heart of Europe. Whereas France, Spain, and especially England have been unified states for hundreds of years, it is not exactly true of Germany, which did not become a modern nation-state until 1871. That is only 50 years before many of the modern countries of central and eastern Europe came into existence at the end of World War I, and so that means that Germany has some things in common with some of the countries that surround the Baltic Sea like Latvia, Estonia and even Finland.[18] The north-eastern section of Germany, which borders Denmark and the Baltic Sea, is the most similar culturally and physically to the Baltic States and Scandinavia. As you move south and west through Germany these similarities diminish.

Similarly, there are differences in each of the reserve and guard forces of the countries that touch the Baltic Sea. Germany, as well as Poland, Finland, and Iceland do not have an organized Home Guard (HG), whereas the other Baltic Sea states (Denmark, Estonia, Latvia, Lithuania, Norway, and Sweden) do. The Scandinavian model of "total defence," has

had a strong influence in all three Baltic States immediately after the end of the Cold War, and in Finland and Sweden even before the end of the Cold War. However the Scandinavian model was never as strong in Germany and now there is more German interest in the NATO concept of "Collective Defence," which has now gradually been adopted in all of the European NATO countries including the three Baltic States.[19]

Germany is the second largest and the most populated NATO/EU country on the Baltic Sea (See Table One). For over 750 years German culture and language have strongly influenced the whole Baltic Sea region. Even though Germany as a nation-state has been in existence since 1871, the German people have been in this geographic area for well over 2,000 years. Germany is a founding member of the EU and an early member of NATO as well as a long time member of the Council of Europe, the Organization for Economic Co-operation and Development (OECD), the Organization for Security and Co-operation in Europe (OSCE), and the United Nations (UN). The original capital and the capital since 1991 is Berlin with a population of 3.4 million, making it the largest capital city of any EU/NATO country on the Baltic Sea.[20]

Germany's form of parliamentary government is one of the very few federal republics in Europe. Germany is divided into 16 Länder (states). Each of these has their own state parliament. The legislative branch of the central government consists of two bodies: one similar to the US House of Representatives (Bundestag) and one like the US Senate (Bundesrat) with the Bundesrat (senate) representing the 16 states. Germany has a President, elected by special convention, who is the head of state and a Chancellor, like a prime minister, who is elected by the Bundestag (house). The Chancellor forms a cabinet and functions as the leader of the government, which includes the ministry of defence.[21]

The Roman Catholic Religion is the largest faith in Germany. But large parts of modern Germany have a great percentage of Lutherans and Muslims.[22] Martin Luther, the individual who is credited with starting the Protestant Reformation was born and lived in what is now called Germany. With the historical period of the reformation having started in the German region of Europe, religion has continued to play an important role in the development of both wars and peace including how Chancellor Bismarck in the late 1800s organized the foundations of modern

Germany.[23]

Many German dialects exist throughout the country making the language vary greatly across the nation. In addition English is widely spoken as a foreign language throughout the western part of Germany and among the young in the eastern part.[24]

Every country's history has a direct impact on how its military is organized and in the countries of the Baltic Sea region the events of World War II have had a major impact on the modern development of the military. But in case of Germany the events of World War II and the events of the Cold War have had not only a very significant impact on the development of the military but have also affected the way the population sees the uses of the military. "Germans are still to a degree, haunted by their history."[25] It is because of this recent history that the German people have developed one of the most pacifist sentiments and one of the better-organized pacifist groups of any nation in Europe. This recent history has caused German governments to be very careful in developing the German military for anything but a pure defensive force or a force to assist NATO as well as other international organizations with peacekeeping.[26] The government is also extremely reluctant to develop aggressive plans and programs for its military to be ready and trained to assist its police in dealing with potential large scale organized terrorism attacks after the 9/11 terrorist attack.[27]

Another example of World War II impact on present events is the fact that the German constitution (Basic Law) prohibits Germany's Federal Police from having any combat role. As any large police department, the Federal Police is organized like a paramilitary force but under the Ministry of Interior rather than the Ministry of Defence. When first looking at the German police with all of their specialized equipment there is the impression that it is like the US style National Guard units, but the Federal Police in Germany needs this specialized equipment because of the German constitution's ban on using the military to assist the police. The Federal Police force consists of approximately 30,000 individuals divided between nine regional commands. Much of its equipment resembles military equipment and its aviation section is one of the largest police helicopter forces in the world. The Federal Police has sections dedicated to hostage rescue missions, naval special warfare missions, airborne insertion techniques, etc.[28] German police does not have a combat role, but this

police force is well prepared to deal with most emergency domestic situations.

As a member of the EU, Germany has become involved with the EU's Security and Defence Policy (ESDP) and the EU's attempts to form an EU quick reaction capability. This includes the concept of European Union Battlegroups (EUBG) based on a Franco-British-German initiative from 2003 aimed at furthering the rapid response capabilities of the EU in the event of crises. Battlegroups are deployable task forces (at 10 to 15 days' notice), each with a multinational strength of some 1,500 military personnel, and are designed for rapid, robust action across the full range of tasks of the EU. Germany has been a member of and/or the lead nation in several of these battlegroups including one with Poland and other Baltic Sea nations. In fact, The Battle Group Concept is an excellent political statement that shows in a very reassuring way that Europe has a will to act militarily as a united Europe.[29]

As a member of NATO Germany has been very active in NATO's involvement in Europe and has also been involved in NATO's deployment in Afghanistan. In addition to the EU and NATO missions, Germany has had troops deployed in several locations outside Germany under the UN Flag. Presently all EU, NATO and UN missions are open to German reservists.[30]

Along with Norway, a Baltic Sea Nation, and other countries (e.g. Britain and Belgium), Germany is involved in a special training program with the USA called Small Unit Reciprocal Exchange Program (SUE) that allows German units to train in the USA and American troops not stationed in Germany to train in Germany. This program is open to both active and reserve troops, and has been shown in Norway and Germany to be very useful as a realistic training tool.[31]

> Unlike most other NATO countries, Germany stubbornly adheres to a policy of military conscription. At present, the Compulsory Military Service Act subjects all male German citizens to conscription into the German armed Forces (the Bundeswehr) when they reach the age of 18. …., the Bundeswehr contains both career forces (mostly officers, NCOs, and specialists) and Zeitsoldaten (soldiers who serve for limited periods before returning to civilian life). Zeitsoldaten encompass

> soldiers performing their basic military service, as required by law [conscripts], those who have voluntarily extended their initial tour, and members of the Bundeswehr's reserve components.[32]

This desire to hold on to the concept of conscription, which many Germans believe ensures the continuity of the democratic state, is not a new concept in Germany, but is a tradition that goes back at least until the 1848 Revolutions. With the end of the Cold War, many of the political parties in Germany believe that conscription should end and the military be made up 100% of volunteers, but the ruling party has not changed its position on keeping conscription.[33] After the election in 2009, this question was still up for debate even into late 2010.

A great number of German civilian and military leaders believe that the draft fills a very important function by keeping the military strongly linked to the general population and in addition, since 1990 the draft has helped integrate former East German citizens into a united Germany.

> A major factor sustaining conscription is that its elimination would deprive the public sector of the extraordinarily large number of individuals who perform low-paid community services as an alternative to military service (the Zivildienst). Each year over 100,000 Germans, approximately half the total number of draftees, choose to work for 10 months in retirement homes, community service organizations, and international development projects. The ease with which potential conscripts can declare themselves conscientious objectors has effectively transformed Germany's system of universal conscription into one of universal public service, at least for young men.[34]

Another factor that favours conscription is the concern that ending the draft would injure military recruiting, which is already under pressure because of the dropping birth rates. The Bundeswehr regularly recruits about one-half of its career personnel from its conscripts so that any change to the draft laws would have an impact on the total defence structure.

The two conservative political parties of Germany (the CDU/CSU) which make up the senior part of the coalition government of Germany have

historically been interested in keeping conscription. However, their junior partner in the coalition government, the liberal party (FDP), has been in favour of abolishing conscription for a long time. After the federal elections of late September 2009, the CDU/CSU and FDP parties reached a compromise and "signed a formal coalition agreement in November 2009, wherein which the draft period shall be reduced to six months in 2010, followed by a serious review about keeping the current system."[35]

In December 2010, the German government adopted a plan to abolish conscription by 1 July 2011 and reduce the size of the active military by approximately 10%. Germany believes that this plan will save approximately eight billion Euros over the next four years, but its repercussions on the military and the social services (presently manned with individuals who do community service in lieu of the military) will not be seen until late in 2011.[36]

The government of Germany treats everyone who has ever served in the military (either as a volunteer or a draftee) as a reservist. When individuals leave active duty they are eligible for reserve status after they have waited 12 months from the date of discharge. Members of the regular volunteer military who have retired are still under obligation until age 65. The requirements for female personnel are slightly shorter. Military members who do not stay in the volunteer military until retirement (like those who only serve their conscript time) "remain subject to call up [as reservist] until they reach age 60 for officers, 45 for NCOs, and 32 for soldiers (age 60 years in case of a national emergency)."[37] "In addition, retired active officers also remain in a reserve status (Wehrüberwachung) until having reached the age of 65."[38]

The German government can activate most reservists for 15-30 days of training annually. But within the German system, recalls to active duty are not uniform: those with special military related skills are called more often and those with unneeded skills might never be recalled. Most German reservists get their needed initial training in their specialty during their initial active duty, possibly during their conscript time, or from their civilian acquired skills.[39]

Table 2:
Comparison of present active and reserve component strength figures for Germany

Component	Army	Navy	Air Force	Total
Active[40]	167,500	24,000	62,000	253,500
Reserve[41]	64,700	8500	21,800	95,000

The German system for the training of reserve officers and NCOs puts emphasis on individual training and command post exercises. Even though reservists are eligible for mobilization until they reach a certain age (see above), they are usually only called for training during the first ten years after leaving active duty for officers, seven years for NCOs and four years for enlisted members.[42]

Germany's concept of managing reservists has them divided into three or four categories/groups:

1) The General Reserve or non-assigned reservists (Allgemeine Reserve, a passive reserve);
2) The Manpower Reserve or non-structurally assigned reservists (Personalreserve, an active reserve);
3) The Reinforcement Reserve or structurally assigned reservists (Verstärkungsreserve, an active reserve);[43] and
4) Deployment reservists (not an official title or official category but widely used).

Members of the General Reserve are only subject to mobilization in case of national emergency whereas members of the Manpower and Reinforcement Reserves can be called up for smaller scale needs of the country and/or the military as well as large scale national emergencies. The Manpower Reserve consists of mostly volunteers that can be placed in general assignments, and the Reinforcement Reserve is made up of specialists that are 100% volunteers to fill specific openings.

The deployment reserves are completely made up of volunteers from the above reserve categories that are provided with extra payments to do extra training and to be prepared for mobilization on very short notice for both domestic and international assignments.[44]

Germany has no equivalent of the British Territorial Army or US National Guard (NG). The vast majority of German reserves are mainly organized to support the active duty forces rather than to function as a well organized unit. Thus the greatest number of reservists in Germany are organized more like the US individual ready reserve with only a decreasingly small part of the German reserve system designed to function as independent units like the US NG or US local unit reserves.

As in the United States, Germany has an association of reservists that serves both the social and political needs of its members. Unlike the United States where none of the military associations receive any federal funds, this association in Germany is funded by the German federal government.[45]

But as in the US system, the members of the German reserve are well compensated in both pay and benefits for their reserve training and time. With the German birth rate declining, it would be hard for Germany to keep its military, including its reserves, at its present size if it were to end conscription, especially since Germany spends less than 1.5% of its gross domestic product on defence. This is one of the lower percentages within NATO.[46]

There is vast evidence, including at least two detailed studies by the US Congressional Budget Office and a less detailed one by NATO, showing that the cost of reserve units and personnel including training, use of resources, maintenance of equipment, pay and allowances is much cheaper than the same costs for active personnel.[47] There is ample data that a well trained NG division was and can be as professional as an active division. "This irrefutable evidence includes many observations over many years of one of the US National Guard's most famous divisions, the 29th Infantry Division, which in WW I, WW II (at D-Day), and in Kosovo, at the end of the Cold War, performed its combat and peace keeping duties exceptionally well while stationed overseas as it functioned as a US Army division filled with NG troops and led by NG officers."[48]

Now Germany, like most European countries, has to further reduce its government spending since the latest recession. This will most likely mean a further restraint on the military budget. One way that Germany could maintain its military posture within NATO and the EU, while at the same

time ending its dependence on conscripts, would be to cut back on its active strength while increasing its reserve strength. To do this and keep the reserves well trained and organized would mean changing the structure of the reserves to contain more units including large complex units and possibly home guard type units.

The leading predecessor of modern Germany, Prussia, very successfully converted the Prussian army from a professional military to a reserve military in the early 1800s. During the Napoleonic wars, Prussia was defeated by Napoleon in 1806. After the defeat, Napoleon limited Prussia to only a small professional army. Circumventing this requirement Prussia developed a very well organized reserve system. This system was so successful that under the command of General Blücher the Prussian Army won the Battle of Leipzig against the French in 1813. This was even more remarkable because this battle, won by the reserves, was the largest battle in Europe until World War I. Also the Prussians with their reserve army under the command of Field Marshal Blücher were the most important ally of the Duke of Wellington, the victor at Waterloo in 1815.[49] Maybe this process of building large well-trained and organized reserves should be repeated now as Germany is trying to cut expenses and at the same time meet its military obligations within the EU and NATO parameters.

Poland

Poland is an ancient nation that was conceived near the middle of the 10th century. Its golden age occurred in the 16th century. During the following century, the strengthening of the gentry and internal disorders weakened the nation. In a series of agreements between 1772 and 1795, Russia, Prussia (Germany), and Austria partitioned Poland amongst themselves. Poland regained its independence in 1918 only to be overrun by Germany and the Soviet Union in World War II. It became a Soviet satellite state following the war, but its government was comparatively tolerant and progressive. Labour turmoil in 1980 led to the formation of the independent trade union "Solidarity" that over time became a political force and by 1990 had swept parliamentary elections and the presidency. A "shock therapy" program during the early 1990s enabled the country to transform its economy into one of the most robust in Central Europe, but Poland still faces the lingering challenges of high unemployment, underdeveloped and dilapidated

> infrastructure, and a poor rural underclass. … Poland joined NATO in 1999 and the European Union in 2004. With its transformation to a democratic, market-oriented country largely completed, Poland is an increasingly active member of Euro-Atlantic organizations.[50]

Poland is a unique country in the fact that it is the only country touching the Baltic Sea that was behind the "Iron Curtain" during the Cold War and a member of the Warsaw Pact, but was not part of the Soviet Union. Consequently its development since the end of the Cold War has been different than other Baltic Sea countries, which were never in the Warsaw Pact. Likewise Poland is different than Estonia, Latvia and Lithuania, which were not independent countries during the Cold War. The three Baltic States, like Poland and Finland, became modern nation-states at the end of World War One, but Poland was able, like Finland, to maintain its "statehood" throughout the Cold War. Finland was not in the Warsaw Pact even though it did have the USSR looking over its shoulder.
At the end of the Cold War, if Poland wanted to look west, it had to radically change most of its institutions, but it did not have to change the culture of the Polish people since the Poles have looked west for over 1,000 years.[51]

> The most significant factors in understanding the history of Poland are the central role of Roman Catholicism in the life of the country and its people and the Western orientation of the Polish culture that derives from it. Also of central importance to Poland's historical development has been the country's geopolitical position – wedged between Germany and Russia on the great European plain without the protection of natural frontiers.[52]

Poland has always thought of itself as the "guard at the gate" to Western Europe no matter if it was to help stop the Mongols in 1241, to come to the rescue of Western Europe against the Ottoman Empire (Turks) in 1683 at the Battle of Vienna, to stop the Russian Bolsheviks in 1920 at the "bloodless battle of Warsaw,"[53] or by being the most eastern nation to join NATO in March 1999 and the EU in May 2004. Poland is not only a member of NATO and the EU but also a member of the Council of Europe, the Organization for Economic Co-operation and Development (OECD), the Organization for Security and Co-operation in Europe (OSCE), and the United Nations (UN). "But how the future unfolds

depends once again not so much on the Poles as on what happens in Russia and Germany. For there is no getting away from the fundamental problem heaped up in this area by history."[54]

Unlike England or Sweden, over its 1,000 year history Poland has seldom had the luxury and tranquillity to be able to determine its own destiny. The traumatic history of Poland can be best understood or symbolized by just realizing that Poland was three times divided up by Prussia (Germany), Austria and Russia. This included, from 1795 until the end of WW I, being completely erased from the map of Europe. With a long history of this much change in physical borders before the many years of the Cold War under Soviet domination, it is easy to see why the Polish people of almost all walks of life and all political parties have been such great supporters of NATO and the United States as guarantors of their future.[55]

Of all the countries touching the Baltic Sea, Poland's culture and history is one of the least affected by the Baltic Sea. The many reasons include that the three largest cities (Warsaw, Lodz, and Krakow) are hundreds of miles from the Baltic Sea and that for some years with the forced change of borders Poland did not touch the Baltic Sea. Poland is the fifth largest and the second most populated NATO/EU country touching the Baltic Sea (See Table One). An early capital of Poland for 300 years is Krakow that had been a member of the medieval Hanseatic League and presently has a population of over ¾ million. After a great fire in Krakow, the capital moved to Warsaw in 1596. Warsaw, the present capital of Poland, is the largest city in Poland with a population of over 1.5 million.[56]

Besides Polish, other languages are used in isolated circumstances like Belarusian, Ukrainian, and German, plus among young people, the use of English is increasing. Joseph Stalin extremely exasperated with the very large and very traditional Roman Catholic population in Poland once said "communism fits Poland like a saddle fits a cow:" Over 90% of the citizens of Poland were and are Roman Catholic with 5% being divided between Uniate (an Eastern Catholic religion), Greek Orthodox, and Protestant. Because of the events during and immediately after WWII, the ethnic background of over 98% of the people of Poland is Polish.[57]

At the regional level Poland is divided into 16 provinces (voivodeships) each headed by a governor. The county (powiat) is the administrative unit

at the local level with Poland having 373 counties.[58] At the national level Poland is a presidential-parliamentary system with a bicameral parliament and a separate judicial system. The prime minister is head of government and the other ministers operate as his cabinet. The president is chief of state as well as being the "titular commander-in-chief of the military and also has general responsibility for the police and foreign and defence policy."[59]

The development of the military, including the reserves, is always influenced by the history of the particular country. This is especially true in Poland, a country with a very troubled history. Thus since the end of the Cold War Poland has been trying extremely hard to build a very high quality defence force. Poland has been constantly increasing its expenditures on defence and so today Poland has one of the highest amounts spent on defence of any European country, relative to its size and population.[60]

Poland has two paramilitary organizations under the Ministry of the Interior totalling approximately 20,000 personnel: Prevention Units of the Police and the Border Guard.[61] They consist of some specialized sections with some military type equipment and these units could be used to assist the military in times of crisis. For example the Border Guard has ships, helicopters, small fixed wing aircraft, and special combat type land vehicles. The Border Guard has the capabilities to provide the protection of the state land border as well as, similar to a coast guard, the state sea border.[62]

> On 21 DEC ['07], nine of the states that joined the EU in 2004 -- including Poland -- will become part of the Schengen Agreement [a special part of the area of the EU]. That means visa-free travel for tourists and business people within the expanded area. The disappearance of internal EU frontiers also results in a revised mandate for the border police in the affected countries.[63]

Three of the seven countries that border Poland are not in the EU. Where Poland borders Kaliningrad (Russia), Belarus and the Ukraine, its border is the EU/Schengen area border, and thus a real frontier. Therefore even though the length of Poland's external borders has decreased because of being a member of the EU/Schengen area, the critical importance of the

remaining borders has increased and so has the responsibility of the Border Guard in both military matters (e.g. terrorism) as well as police type issues with smuggling, drugs, international crime, etc.

As a member of the EU, Poland has become involved with the EU's Common Foreign and Security Policy (CFSP) and its quick reaction capability, which, as stated above, includes the concept of EUBG. Poland is a leading nation of one of these European Battlegroups.[64]

At the same time, having been a member of NATO for ten years, Poland has transitioned from territorial defence to collective defence and has been very involved in the NATO developments in Afghanistan. In 2010 Poland has 2,600 troops in Afghanistan and with 400 more in reserve ready to go to Afghanistan on very short notice in case of an emergency. Some of these 3,000 troops are eligible to be in the reserves but have extended their active duty tours. In addition to the above, Poland has had troops supporting the US in Iraq and, under the UN flag, it has had troops in Kosovo.[65] As a member of the EU and a European member of NATO, starting in January 2003, Poland has become a core nation of Eurocorps, which is one of the greatest working symbols of a true integrated European defence establishment.[66]

Eurocorps is a force for the European Union and the Atlantic Alliance.[67] Eurocorps originally was considered a multinational army corps within the framework of the Western European Union (WEU) common defence initiatives. Headquartered in Strasbourg, France, the Eurocorps was established in the early 1990s, though it draws from European defence initiatives as far back as 1963. Today Eurocorps is much more than an army corps. It now is an outgrowth of the WEU since the WEU will cease to exist in 2011. Eurocorps presently has a dozen countries including Germany and Poland providing officers (including some members of the reserves on active duty) for its staff from EU and non EU as well as NATO and non NATO countries.[68] Eurocorps has become one of the operational embodiments of the EU's Common Security & Defence Policy (CSDP), while also having a good working relationship with NATO.

Along with the other Baltic Sea states of Estonia, Latvia, Lithuania, and some other European nations, Poland is involved with the United States in the State Partnership Program (SPP). In the SPP each country's military is

linked up with the National Guard of a US state. In the case of Poland the US State is Illinois. This program allows members of the Illinois Air & Army National Guard to train in Poland with the Polish military. Also Polish active and reserve troops train in the USA with members of the Illinois National Guard (ILNG). The SPP also has allowed both active and reserve members of the Polish armed forces to deploy together with members of the ILNG in Afghanistan.[69]

Up until late 2009, unlike most other NATO members, Poland had adhered to a policy of military conscription. Poland now has developed a complete professional military in 2010 with the last conscripts having left the military by the end of 2009.[70]

Past Polish law required all able-bodied males to serve in the military beginning at age 19 although volunteers may have joined as early as age 17. In 2009 Poland had about 80,000 conscripts in service. The active-duty tour was nine months for all services in 2009. All male university graduates were expected to serve as reserve officers with a one-year, post-graduate active-duty tour, although this requirement was frequently avoided. Conscientious objectors were granted alternative service.[71]

"The [Polish] reserve force is made up of former troops, subject to recall in the event of a conflict. Citizens are held in reserve until age 50 for former enlisted personnel, and age 60 for officers."[72]

Table 3:
Comparison of active and reserve component strength figures for Poland as of 2009

Component	Army	Navy	Air Force	Total
Active[73]	77,000	10,000	27,000	115,000
Reserve[74]	102,300	9,000	19,000	130,000

Reserve forces are designed to supplement military units existing in peacetime and to form new units in case of mobilization. Every member of the reserves has a proposed wartime assignment. Poland's present plans have the reserves divided into four categories:

1) Alert reserve – determines the youngest and the best trained

reservists who are foreseen to supplement mobilization needs of Armed Forces if they are not older than: officers - 40 years old, NCOs – 40 years old, & privates – 30 years old;

2) Qualified reserve – made up of Reservists designed for periodic rotations on mobilization posts during peace time if they are not older than: officers – 40 years old, NCOs – 35 years old, & privates – 35 years old;
3) Passive reserve – reservists with full qualifications to reinforce or replace fighting troops or replenish met losses if they are not older than: officers – 60 years old, NCOs – 50 years old, & privates – 50 years old; and
4) Ineffective reserve – determines those reservists who can be only used for territorial defence.[75]

Readiness – Reserve soldiers can be called up to attend military exercises or to serve compulsory service in these ways: a) immediate -as fast as possible, b) normal -planned, and c) voluntary.[76]

Poland, like Germany, has had no equivalent of the British Territorial Army or the US National Guard. The majority of the reserve forces of Poland are organized mainly to support the regular active duty forces rather than to function also as organized units. Thus the greatest numbers of reservists in Poland are presently organized more like the US individual ready reserve. There is no employer/employee support program in Poland, unlike in the US where there is the Employer Support of the Guard and Reserve (ESGR) program.

The yearly training program for reserves in Poland is based on a six-year cycle with no more than 90 days of training per year. Most years training is only for about 30 days. In addition to the above, individuals appointed to a leadership position within the reserves presently can be sent to 30-60 days of special training.

Presently training of reservists is broken into three groups based on the time necessary to meet standards of combat readiness in case of mobilization (similar to the first three categories of readiness for individual reservists listed above):

1) Reservists who are assigned to units whose time of preparation for combat readiness is 30 days or less are trained every year and attend four military exercises in a six-year period;
2) Reservists who are assigned to units whose time of preparation for combat readiness is between 31 and 90 days are trained three times in six years; and
3) Reservists who are assigned to units whose time of preparation for combat readiness is over 90 days are trained twice during the six year cycle.[77]

Even though there have been many changes and updates to the Polish laws and regulations related to the organization and training of the armed forces and especially the military reserves since the end of the Cold War, according to a Polish newspaper, the Gazeta, the greatest changes have come in late 2009 with the ending of conscription and also in 2010 with the long term repercussions generated because of the end of conscription.[78]

In the conclusion to his "Vision of the Polish Armed Forces 2030", Brigadier General Marek Ojrzanowski states:

> [The] evolving security environment, including the operational one, forces necessity to adjust the armed forces to new challenges. This may be achieved only through a comprehensive change to be done within the … [military] transformation process. The starting point and a prerequisite for an effective transformation of the armed forces is implementation of a coherent and based on profound analyses Vision of the Armed Forces which would be commonly supported by political, social, scientific and military circles.[79]

On 10 June 2009, Jane's Defence Weekly stated "Poland [is] to restructure land forces." These massive changes are part of a Ministry of Defence program to stop conscription and save money at the same time. Naturally the only way to save money while stopping conscription is to reduce the size of the active forces and develop reserves that are very well trained and organized.[80]

According to a copy of the approved 2009 Ministry of National Defence of the Republic of Poland's statement on Reserve Forces' future development, a new type of organized reserve is being created in Poland starting in 2010. This new reserve force will be called the National Reserve Forces (NRF) and it will in many ways be very different from the present reserve system. It presently seems that the new system may well have some similarities to a former version of the US National Guard that was mainly used for domestic issues but could be used overseas if troops volunteered (see details below). The new NFR will coexist with part of the Polish former reserve system that will stay in existence to function more like the US Individual Ready Reserve (IRR) for wartime requirements. The NRF is using 2010/2011 to transition from the old reserve system to the new and this transition includes the development of legislation which among other benefits will allow employers of NRF personnel to be compensated for time when an employee is away for training, to allow incentives to be paid to former active duty personnel for joining the new NRF, and to develop benefits for NRF personnel.[81] In other words the NRF will have the administrative support that it takes to operate efficiently in peacetime as well as wartime.

This new NRF system will have four main missions:

1. Operate against natural disasters and to restore the aftermath;
2. Provide crisis management actions;
3. Accomplish missions abroad;
4. To reinforce military units with manpower reinforcement, to modernize training facilities, to repair and maintain equipment, to restore stocks, etc.[82]

Naturally the NRF will accomplish these missions in support of and in conjunction with the regular professional Polish military. As previously stated the new NRF will not completely replace the present reserve system, but will be in addition to a modified version of the present reserve system, without conscripts.[83]

Basically there will be two systems:

1. Reserve mobilization system to supplement the military units for wartime.
2. The NRF (as an integrated part of the supplement system in Polish Armed Forces) for peacetime crisis missions with the aim to supply mainly the service support units.[84]

In the future the Polish military will be a smaller but very professional military with a well organized reserve system with part of it (NRF) set up to have some of the characteristics of the late 19th Century British Territorials and/or the US National Guard before 1900.[85]

As regards the use of reserves, before WW I the US National Guard was much less centrally organized than it is today and the state militias, as they were known at that time, were mainly used for domestic issues. But state militias could be used abroad as volunteers e.g. during the Spanish American War of 1898. With the coming of WWI, the American federal government passed several laws which made it easier for the state militias to be trained to federal standards and mobilized for use overseas. The British had similar issues with its Territorial Army at the beginning of WWI.

> [In WW I] two-fifths of the AEF [American Expeditionary Force] soldiers were in Guard units, which sustained two-fifths of all causalities. Of the 1,400,000 men who entered combat, 440,000 came from what were originally NG units. Without the Guard mechanism, the US would not have been able to express its great power as fast or as effectively as it was able to do.[86]

The British Territorial Army and the US state militias (National Guard) provided the largest quantity of trained troops in the early stages of British and US entry into WW I. Even though presently the Polish NRF does not have a direct mission in case of a large war affecting NATO in Europe, the fact that a large number of well trained troops will be available means that, in case of a threat to the survival of NATO and Poland, the government could change the rules and use them as was done in Britain and the USA for WW I. Thus this concept that Poland is developing, even though new and very different, has a precedent that shows it is a proven method to use reserve forces to help prepare for future emergencies and at the same time reduce the costs of having a very large active duty military force.

Conclusion

Several global forces are driving the worldwide changes in military reserve policies. First, the end of the Cold War has reduced the need for very large armies to wage protracted military campaigns on a

> continental scale. … Second, [is] the advent of "post-modern" military organizations – which are more open to females, manned by volunteers rather than conscripts, less differentiated from their civilian societies – (…) Third, despite the demands of the global war on terrorism, inflation-adjusted defence budgets remain well below Cold War levels in most countries. These funding limitations have led national military establishments to reduce their overall force structure … and, due to the belief that part-time soldiers cost less than regular troops, to rely more heavily on their reserve components.[87]

There is considerable debate among Western nations about potential new members of NATO, the defence mechanisms of the EU, and how to improve security in Europe. According to a specialist on world security, Barry Buzan, international security is a five dimensional issue (military, political, economic, societal and environmental) and joining NATO only assists with one or maybe two of these dimensions. Some Baltic Sea counties have joined the EU. This step has helped add another one or two of Buzan's security dimensions. By being NATO and EU members and working closely together with other European nations, maybe all five of Buzan's dimensions have been addressed for Germany and Poland as part of the Baltic Sea Region.[88]

The positive attitudes of Germany and Poland towards joint cooperation in northern Europe should be contrasted with Russia's antagonistic attitude, which drives some of the external debate about the security of the Baltic Sea Region. Since the end of the Cold War should Russia be seen as the enemy or even a threat? Russia had hoped to develop a buffer zone between it and the West or at least a trading zone, but no one in the Baltic Sea Region is interested in being part of this "gray zone." "Russia's threats have produced precisely the opposite of their intended aim."[89] Russia's unpredictable actions, as demonstrated by its actions of temporarily cutting off natural gas to the Ukraine and Belarus, create tension and only fortify Polish interest in looking westward to both NATO and the EU.[90] As stated by a member of the Finnish Parliament, 4 September 2007: "Neutrality is a thing of the past."[91]

The programs in NATO and the EU that promote interoperability, although complicated to coordinate, help to strengthen the credibility of the militaries in the eyes of any potential foes. The programs increase the

ability of the reserve and standing forces of these Baltic Sea states to train successfully to NATO standards no matter if a country is a new member of NATO or one that has been a member a long time.

Lieutenant General Hillingso of Denmark has stated that a major reason for membership in a collective defence organization like NATO is that, if a country is a member of NATO, it does not matter if it is defendable or not because an attack on one country is an attack on all. An enemy would think twice before it attacks small nations, if it knows that all NATO would mobilize. A key statement the general makes is that for a group of small nations to survive they must work together and they must have a total defence system that mobilizes the whole nation. He and others advocate the theory that to mobilize the whole country, a strong reserve and guard system is needed that is quick to respond with credible plans and weapons.[92]

In the field of collective defence, Germany and Poland have believed for the West (NATO/EU) to be able to help them, they must be strong enough to hold on until reinforcements arrive. Germany and Poland have helped themselves by adopting NATO standards for interoperability, participating in NATO exercises, working with EU and NATO partners, and developing both total and collective defence systems which include credible reserve structures.[93]

The reserve component concept first developed by the Swedes, Prussians (Germans), and other Europeans in the 1700-1800s is very significant today in northern Europe:[94] "This idea that the army was not to fight the next war, but was to train the nation to fight the next war, should not be underemphasized! ... Theoretically, the Prussians believed, when the reservists marched off to war, his hometown support marched (symbolically) with him."[95]

This concept of total mobilization that allowed Finland to successfully defend itself in WW II against the USSR is a model for other countries. The reserve systems of Germany and especially Poland are becoming increasingly professional. The modern German and Polish reserve forces are more easily able to mobilize within a few hours to protect strategic locations and be a part of collective defence by providing host nation support. Also, if necessary, the future reserve forces of Poland might be

able to form plausible partisan forces, which would provide an additional deterrent to any enemy thinking of attacking.[96]

The home guard concept continues to develop in northern Europe. Poland is developing its NRF, which in some small ways is similar to Finland's "*Maakuntajoukot*" or Provincial Forces (PF), a *de facto* HG. In other words, the Polish NRF is a reserve built and organized with a few of the characteristics of a "Home Guard," yet it is not a separate entity and is a specialized part of the regular reserves under the centralized control of the regular military forces.[97] In addition if you include the PF in Finland as a *de facto* HG and the new NRF in Poland as having some of the traits of a HG, then all ten of the EU/NATO nations in the Baltic Sea Region have HGs except Germany and Iceland. However, even Iceland with no military is considering the development of a "National Guard."[98]

As stated previously, since the 2009 German election Germany initially reduced the length of time conscripts are required to stay on active duty and now in 2011 German conscription will end. This change will most likely gradually force Germany to modify its use of reserves and the way they are organized. The cost factor is one governmental reason for more interest in greater use of HGs and/or organized reserves that function in ways similar to HGs. Recent budget constraints and the reduced expense of HGs *vs*. more financially demanding active forces could be a key issue in decisions. With the German conscript system ending, greater interest in organized unit reserves is a possible outcome. "The Bundeswehr's deputy chief of staff is also the commissioner for the reserves, a fact that underscores the [possible] growing importance of the reserves in the Bundeswehr."[99]

Until the end of 2009 both Germany and Poland used conscripts for the purpose of creating large standby reserves. Now only Germany uses that formula and soon Germany will end conscription. Both Germany and Poland have also used their conscript systems to keep a link between the military and civilian societies. A well organized local reserve system (like a home guard) can also develop a strong link between military and civilian societies as is seen in other parts of the Baltic Sea region as well as with the UK Territorials and the US National Guard.[100]

As stated above, one area that allows Germany and Norway to excel in training is their involvement in the USA's Small Unit Reciprocal Exchange Program (SUE). Germany and Norway are the only Baltic Sea countries that are part of this program, but other countries do belong (e.g. Britain and Belgium). The SUE allows reciprocal training exchanges of company size units every year for training and 50% of the costs are paid by the USA. Countries formerly behind the "Iron Curtain" (e.g. Poland and Estonia) are eligible to be able to apply for 100% coverage by the USA.[101]

In the case of Germany and Norway, for many years the active and reserve forces of Germany as well as the HG of Norway have trained with active, reserve, and NG forces of the USA. Every year the German and Norwegian military have had exposure to training opportunities from a non-Nordic/non-European source. Therefore long before the end of the Cold War, the recent European reductions in the size of active forces, and the consequent improvement of reserves and HGs, Germany and Norway have had some special company size training for its military. Maybe this long-term special cooperative military training can partly explain German & Norwegian preparedness. Naturally annual training with the US military is only one factor, but it is something that could be explored by other Baltic Sea countries. The training opportunities allowed by law under the State Partnership Program (SPP) between nations (e.g. Poland with Illinois and Estonia with Maryland), could be expanded into SUE by a memorandum of understanding (MOU) before the SPP ends in its present format and cuts off valuable realistic training for Poland just when it is developing a new reserve system.

As the following summarizes, and the above sections on each country help demonstrate, the countries of the southern rim of the Baltic Sea Region are carefully modifying their defence organizations including the concept of conscripts and reserves to deal with current situations:

> Throughout the world military reserves are changing. National governments are transforming the relationships between their active and reserve components; the allocation of roles and responsibilities among reserve forces; and the way they train, equip, and employ reservists. One central precept is driving these changes: Nations no longer consider their reservists as strategic assets suitable primarily for mobilization during major wars. Whereas previously they managed reservists as supplementary forces for use mainly during national

emergencies, major governments now increasingly treat reservists as complementary and integral components of their "total" military forces.[102]

Acknowledgements

The author would like to recognize the late Brigadier Mart Tiru, Brigadier Vello Loemaa, Brigadier Meelis Kiili, Lieutenant Colonel Harri Ints, and Lieutenant Colonel Kalle Teras all of the Estonian Armed Forces for their assistance provided on this project. In addition special thanks are due to the many German, Polish, and other officers who were interviewed and corresponded with the author.

The same author published an earlier article (Sep. 2008) in the *Baltic Security and Defence Review* looking at the reserves and home guards of the five Nordic countries. A previous article (Dec. 2006) in the *Journal of Baltic Studies* looked at the reserves and home guards of the three Baltic States (also an unpublished version of that article in 1999 at the US Army War College, Carlisle, PA). These papers were presented at the 17th and 20th Association for the Advancement of Baltic Studies (AABS) Conferences in Washington, DC.

---

[1] Sjouke de Jong, NATO's Reserve Forces, (London: Brassey's, 1992), p. XIV

[2] NATO Information Services, NATO Handbook, (Brussels: NATO Office of Information and Press, 1989), p.77

[3] Interview with Brigadier Michael Clemmesen, Danish Commandant of the Baltic Defence College, Tartu, 26 March 1999.

[4] E-mail interview with Swedish Captain Odd Werin, Officer of Partnership Coordination Cell, Mons, Belgium, 18 January 1999.

[5] Jan Arveds Trapans, "The Baltic States: Defence and Geopolitics," European Security, 7-3 (Autumn 1998): 93.

[6] W.C. Thompson, Nordic, Central and Southeastern Europe (The World Today Series), *7th ed.* (Harpers Ferry, WV: Styker-Post Publications, 2007), pp. 1-326.

[7] Interview with Colonel Risto Gabrielsson, Finnish Head of Tactics, the Baltic Defence College, Tartu, 26 March 1999

[8] Interview with Lieutenant Colonel Sten Wadensjo, Swedish Assistant Commandant and Colonel Peter Hodel, Swiss Instructor, Baltic Defence College, Tartu, 26 March 1999.

[9]Colorado University, "Conflict Information Consortium," 29 March 2008 [http://conflict.colorado.edu and

http://www.colorado.edu/conflict/peace/treatment/collsec.htm

[10] General John Craddock (USA, Commander of SHAPE). "NATO: Bucharest and Beyond" Presentation. National Defence University, Washington, DC. 20 February 2008.

[11] Colonel Alexander A.C Gerry (Ret. USAR), "NATO Reserve Forces Review." The Officer. July (1990): 12

[12] In Britain the words Home Guard have a connotation similar to the US State Guard or US State Militia. The British call their local professional militia the Territorials which are very similar to the US National Guard in that they are professional and aligned with the regulars as the Home Guards are in many NATO/EU countries.

[13] Interview with Professor Jeppe Trautner, Danish Head of Defence Administration, Baltic Defence College, Tartu, 27 March 1999.

[14] E-mail conversations with Major Sune Ullestad (Chief Public Affairs Officer of the Swedish Home Guard), Stockholm, 29 & 30 May, 2 & 3 June 2008.

[15] Lieutenant Colonel (US Army) Robert E. Tripp, "Reserve Forces of the NATO Armies" (research project, NATO Defence College and US Army War College, 1991), p. 3.

[16] Military Periscope [Iceland] (Nations/Alliances/Geographic Regions). [http://www.militaryperiscope.com/nations/naeur/iceland/organzn/index.htm1]. Web page. 7 August 2007

[17] Central Intelligence Agency, "Germany," June 2009, The World Fact Book, [https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html].

[18] Mary Fulbrook, A Concise History of Germany, 2nd Ed. (Cambridge: Cambridge University Press, 2001) pp.1-8.

[19] Interview with Christian-Marc Liflander (Graduate of the US Military Academy), Counsellor (Defence), Estonian Embassy, Washington, DC, 20 June 2006 and interview with Lieutenant Colonel Harri Ints, National Liaison Representative of Estonia to the Supreme Allied Commander Transformation (NATO), Norfolk, Virginia, 24 February 2006.

[20] Bureau of European and Eurasian Affairs, "Germany," Background Notes (Washington, DC: US State Department, 12 March 2010) [http://www.state.gov/r/pa/ei/bgn/].

[21] Thompson, pp. 225-240 and e-mail interview with Lieutenant Colonel Jörg (George) Neureuther of the German Army, Norfolk, 12 July 2010.

[22] Interview with Lieutenant Colonel Peter Grundhoff of the German Army, Norfolk, 17 February 2009.

[23] Peter Hintereder, Facts about Germany [web], 2 August 2009 [http://www.tatsachen-ueber-deutschland.de/en/content-home/book.html].

[24] Federal Research Division, Library of Congress, Germany: A Country Study, Area Handbook Series (Washington, D.C.: Government Printing Office, June 2009) [http://memory.loc.gov/frd/cs/detoc.html].

[25] Thompson, p. 168.

[26] Charles C. Moskos, John A. Williams, and David R. Segal, editors, The Post Modern Military (Oxford: Oxford University Press, 2000), p. 88.

[27] Interview with Lieutenant Colonel Sven Lange, PhD, of the German Army, Norfolk, 17 February 2009.

[28] Military Periscope [Germany] (Nations/Alliances/Geographic Regions). http://www.militaryperiscope.com/nations/naeur/germany/organzn/index.htm1]. Web page.7 August 2009

[29] The European Foundation, "The European Parliament is calling for EU army," European Journal, Stone, 23 February 2009,

[http://europeanjournal.typepad.com/my_weblog/2009/02/the-european-parliament-is-calling-for-eu-army.html], and e-mail interview with Commander Christian Hillmer, Assistant Naval Attaché, Embassy of the Federal Republic of Germany, Washington, DC, 23 June 2010.

[30] Theo Sommer, "No Draft Dodgers, They," The Atlantic Times of Berlin, September 2008

[http://www.atlantic-times.com/archive_detail.php?recordID=1443#] and

interview with Grundhoff.

[31] Interviews (phone and e-mail) with active duty Sergeant Major Terry Werley of the US National Guard, Washington, DC, 28 May –3 June 2008.

[32] Richard Weitz, The Reserve Policies of Nations: A Comparative Analysis (Carlisle: The Strategic Studies Institute, U.S. Army War College, 2007), p. 49.

[33] Interview with Captain Ralf Schmitt-Raiser, Naval Attaché and Assistant Defence Attaché, Embassy of the Federal Republic of Germany, Washington, DC, 17 December 2008.

[34] Weitz, p. 50.

[35] Neureuther.

[36] Defence & Aerospace News, "Germany endorses plan to abolish conscription by 2011," Brahmand.com, December 2010

[http://www.brahmand.com/news/Germany-endorses-plan-to-abolish-conscription-by-2011/].

[37] Interview with Lieutenant Colonel Peter Rieger of the German Armed Forces Command, Reston, Virginia, 17 December 2008.

[38] Neureuther.

[39] Grundhoff.

[40] Schmitt-Raiser.

[41] Interview with Commander Kai Tetzlaff of the German Navy, Washington, DC, 29 July 2009.

[42] Peter Struck, The Bundeswehr Reservist Concept (Berlin: Bundesministerium der Verteidigung, 10 September 2003), p. 17.

[43] Grundhoff.

[44] Reserve Forces Intelligence, "The German Reserve," pp. 3-5 [web] 10 February 2009

[http://www.reserveintelligence.com/ and

http://www.reserveintelligence.com/articulo.asp?page=1&pagina=seccion.asp&seccion=&titulo=The+German+Reserve&nombre=Reserves+around+the+World&id=25].

[45] Struck, p. 20.

[46] AICGS Policy Report 2008 (Washington, DC: American Institute for Contemporary German Studies, Johns Hopkins University), p. 15.

[47] Robert F Hale, "Improving the Readiness of the Army Reserve and National Guard: A Framework for Debate" (Washington, DC: Congressional Budget Office), p. 9 [web] 18 July 2010 [http://www.cbo.gov/doc.cfm?index=11380], John Enns, "Substituting Reserve/Guard units for Active-Duty units to reduce costs: Five Examples" (Washington, DC: Congressional Budget Office), p. 1 [web] 18 July 2010 [http://www.cbo.gov/doc.cfm?index=10761], and NATO, "National Reserve Forces Status - USA" (Brussels: 2006), p. 3 [web], 18 July 2010 [http://www.nato.int/nrfc/database/usa.pdf].

[48] Interview with Chief Warrant Officer Four (Retired) Ivan Dooley, Secretary/Treasurer of Maryland Military Historical Society, Fifth Regiment Armory, Baltimore, 19 July 2010.

[49] Robert Mantle, Prussian Reserve Infantry, 1813-15 (London: Napoleonic Association, 1976). Pp 2-3

[50] Central Intelligence Agency, "Poland," August 2009, The World Fact Book [https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html].

[51] Lonnie R. Johnson, Central Europe (Oxford: Oxford University Press, 2002), pp. 223-275.

[52] Harold D. Nelson, ed., Poland: A Country Study, Area Handbook Series (Washington, DC: Library of Congress, Government Printing Office, 1984), p. 3.

[53] H.A.L.Fisher, A History of Europe, Volume II (Glasgow: Fontana/Collins, 1939), p.1291.

[54] Adam Zamoyski, The Polish Way (A Thousand-year History of the Poles and their Culture) (New York: Hippocrene Books, 1994), p. 397.

[55] University of California at Santa Barbara, "Oral History Project," 17 August 2009
http://www.history.ucsb.edu/projects/holocaust/Resources/history_of_lviv.htm

[56] Bureau of European and Eurasian Affairs, "Poland," Background Notes, US State Department, Washington, DC, 7 October 2009

[http://www.state.gov/r/pa/ei/bgn/].

[57] Thompson, p. 294.

[58] Institute for Local Government and Public Service, Local Government in Central & Eastern Europe "Local Government in Poland" (Budapest: 18 August 2009) [http://lgi.osi.hu/publications/2000/25/Chapter_5.PDF].

[59] Thompson, p. 310.

[60] NATO Press Release, "Financial and Economic Data Relating to NATO Defence" (Brussels, 19 February 2009).

[61] Jeffrey Simon, "Poland Prepares for the Alliance," Joint Forces Quarterly (Summer 2000).

[62] Interviews (face-to-face and e-mail) with Brigadier Marek Ojrzanowski, Polish Army Officer-in-charge of Polish delegation to NATO office of Transformation, Norfolk, September 2009.

[63] DW-World.de, "Polish Border Guard," Deutsche Welle of Bonn, 29 November 2007 [http://www.dw-world.de/dw/article/0,,2975710,00.html].

[64] European Foundation.

[65] Military Periscope [Poland] (Nations/Alliances/Geographic Regions - Army). Web page 1 July 2010

[http://www.militaryperiscope.com/nations/naeur/poland/organzn/index.htm1]

[66] Interview with Colonel Andrzej Kopacki, Military Attaché, Polish Embassy, Washington, DC, 14 December 2009.

[67] "Eurocorps - a force for the European Union and the Atlantic Alliance" (Strasbourg: September 2010) (http://www.eurocorps.org/).

[68] Ibid.

[69] Phone interviews with Captain Doug Coop of the Illinois Army National Guard, Springfield, Illinois, 7 and 19 September 2009.

[70] interviews (face-to-face and e-mail) with Lieutenant Colonel Jacek Perkowski of the Polish Army, Norfolk, 17 February and 22 June 2009.

[71] Military Periscope [Poland], Armed Forces: Conscription, 1 July 2009.

[72] Ibid, Armed Forces: Army, Navy, Air Force, 1 July 2009.

[73] Department of Budget, Polish Ministry of Defence, "Budget Power Point Presentation" (Warsaw, March 2009).

[74] Military Periscope [Poland]. Armed Forces: Army, Navy, Air Force, 1 July 2009.

[75] NATO, "National Reserve Forces Status - Poland" (Brussels: August 2009) [http://www.nato.int/nrfc/database/poland.pdf].

[76] Ibid.

[77] Ibid. & interviews (e-mail and phone) with Major James Fisher of the Illinois Army National Guard, stationed in US Embassy, Warsaw, Poland, April 2009.

[78] Rich, 2009, "National Force reserves - the idea of reinforcing the army," Gazeta (Newspaper), Warsaw, 1 April 2009

[http://wiadomosci.gazeta.pl/Wiadomosci/1,80708,6453322,Narodowe_Sily_Rezerwowe__pomysl_na_wzmocnienie_armii.html].

[79] Polish Ministry of Defence, "Vision of the Polish Armed Forces 2030" (Warsaw, May 2008), p.34

[http://www.wp.mil.pl/pliki/File/vision_of_paf_2030.pdf].

[80] Grzegorz Holdanowicz, "Poland to restructure land forces," Jane's Defence Weekly, 10 June 2009, p. 18.

[81] Department of Transformation, "Official written statement on the reserve forces future development," Ministry Of National Defence of the Republic of Poland, Warsaw: November 2009.

[82] Ojrzanowski, 3 July 2010.

[83] Sylwester Michalski and Romuald Szeremietiew, "Our Diary," Nasz Dziennik (Newspaper),Warsaw, 30 December 2009

[http://www.naszdziennik.pl/index.php?dat=20091230&typ=po&id=po61.txt].

[84] Polish Ministry of Defence, "Narodowe Siły Rezerwowe, Vademecum"

(Warsaw, March 2010), p.11

[http://www.profesjonalizacja.wp.mil.pl/plik/file/NSR/vademecum_nsr3.pdf].

[85] Isabella Leszczyńska, "Army civilians want to mend a hole in the armor," Dziennik (Newspaper), 31 March 2009, Warsaw

[http://www.dziennik.pl/polityka/article352104/Armia_chce_cywilami_latac_dziury_w_pancerzu.html].

[86] John K. Mahon, History of the Militia and the National Guard (New York: Macmillan, 1983), pp. 168-169.

[87] Weitz, p. 121.

[88] Barry Buzan, People States & Fear: An Agenda for International Security Studies in the Post-Cold War Era, 2nd ed. (London: Harvester Wheatsheaf, 1991).

[89] Stephen J. Blank, "Russia and the Baltics in the Age of NATO Enlargement, " Parameters XXVIII-3 (Autumn 1998): 56.

[90] Dr. Rein Ruutsoo (Tallinn University). "Energy Policy of the European Union and Baltic Security Discourse" (Presentation at the 20th Conference of the Association of the Advancement of Baltic Studies. Washington, DC, 17 June 2006).

[91] Pertti Salolainen, "Finland: As non-members of NATO, we are outsiders by choice," Financial Times, 4 September 2007.

[92] Lieutenant General K.G.H. Hillingso, "Defensibility," Baltic Defence Review, 1 (1999): 36-40.

[93] Clive Archer, "Nordic Involvement and the Baltic States Security: Needs, Response and Success," European Security 7-3 (Autumn1998): 57.

[94] Andre Corvisier, Armies and Societies in Europe: 1494-1789 (Bloomington, IN: Indiana University Press, 1979).

[95] Wilbur E. Gray, Prussia and the Evolution of the Reserve Army: A Forgotten Lesson of History (Carlisle: The Strategic Studies Institute, U.S Army War College, 1992), pp. 10-11.

[96] Erkki Nordberg, The Baltic Republics: A Strategic Survey, Finnish Defence Studies 6 (Helsinki: National Defence College, 1994), p. 80.

[97] Interviews (personal and e-mail) with Colonel Pekka Toveri of the Finnish Army, Norfolk, 30 Apr, 6 Sep 2007, 5 Jan, 28 May, & 2 Jun 2008.

[98] Milton Davis, "An Historical and Political Overview of the Reserve and Guard Forces of the Nordic Countries at the Beginning of the Twenty-first Century," Baltic Security and Defence Review 10 (2008): 183-184.

[99] Moskos, Williams, and Segal, p. 85.

[100] Ibid, p. 99.

[101] Werley, 28 May – 3 June 2008 and July 2009.

[102] Weitz, p. vii.

Is Kosovo the Beginning and the End? Swiss Military Peacekeeping

By Marco Wyss[*]

After the fall of the Berlin Wall, peacekeeping expanded rapidly. It was believed that with the end of the Cold War a peaceful era would finally be possible, the United Nations (UN) Security Council had become more permissive and proactive, and the western states desired to play a role in the fight against human suffering. The failures in Somalia, Rwanda and Bosnia abruptly suspended this process, and the Security Council became reluctant to authorise new missions. Yet through a variety of factors, such as geographic proximity, the learning of "lessons" and new concepts and practices, by the late 1990s, peacekeeping resumed in earnest. Learning from earlier failures, the UN and regional organisations shifted their focus on so-called peace support operations (PSO), i.e. multifaceted operations that combine a robust military force with a significant civilian component. In such missions, an UN-authorised multinational force is responsible for providing security, while an interim UN administration – often in conjunction with other organisations – attempts to establish a functioning democratic state. Accordingly, this version of peacekeeping involves civilian policing, institution building, infrastructure reconstruction and reconciliation.[1] Since 1999, there is such a PSO – or integrated mission – in Kosovo, where NATO, the UN, the OSCE and now the EU provide security and try to establish a stable democracy.[2]

Despite holding to its neutrality tradition, Switzerland did not remain aloof from this process and became increasingly interested in the idea to promote peace abroad. During the first post-Cold War decade, the Swiss began to reform their security and defence policy. They tried to move from an autonomous to a cooperative security strategy, and decided to add international peace and domestic support to the armed forces' traditional task of territorial defence. This policy shift found its most clear-cut expression in Switzerland's participation in NATO's Kosovo Force

[*] Centre for Security Studies (CSS), ETH Zurich

(KFOR). The sending of a Swiss Company (Swisscoy) in 1999 even preceded the official security white paper "Security through Cooperation" and the related military reform. Since then, a partial reform and yet unapproved security and defence white papers call for a substantial increase in the number of Swiss peacekeepers. But despite such objectives, the Swisscoy remains with approximately 220 soldiers Switzerland's sole significant military contribution to peacekeeping.[3]

The Swiss participation in KFOR is strongly appreciated by partner nations, it benefits the development of the Swiss Armed Forces through "lessons learned", a stable Kosovo is to Switzerland's advantage, the deployment is sustainable, there are sufficient volunteers, and the population is generally supportive of the mission.[4] Nevertheless, despite these advantages and favourable conditions, the Swisscoy could be Switzerland's first and last substantial military peacekeeping mission for years to come. Although the newly independent Kosovo remains unstable, crime-ridden, economically weak, and minority rights are still not guaranteed, the civilian side of peace support starts outweighing the military side. Meanwhile, even though peace support theoretically remains a pillar in Switzerland's security strategy, in practice there is no new substantial military peacekeeping mission on the horizon. While Switzerland's military system imposes limits on the armed forces' ability to deploy abroad, a large percentage of the Swiss population clings to the ideal of civilian peace promotion and views military peacekeeping in breach of neutrality.[5]

More importantly, while some on the left political spectrum question the armed forces *per se*, the large but strongly conservative people's party (*Schweizerische Volkspartei*, SVP) calls for a return to the Cold War posture, with a heavy reliance on territorial defence and an end to military operations abroad. The SVP Federal Councillor and Defence Minister Ueli Maurer generally accepted and defended the Federal Council's majority view on the need for international military cooperation and peacekeeping. But soon after taking office in 2009, he clearly stated his belief that military operations abroad should not be part of Switzerland's security strategy:

> "The Swiss Armed Forces may benefit from missions abroad in isolated cases, but they are not an end in themselves. The Swiss

> Armed Forces are a political instrument and enjoy precisely that extent of backing as the political support they have. This support, however, has been crumbling for quite a long time and the euphoria that Switzerland is able to make its mark with operations abroad is wrong in my view".[6]

This paper, therefore, argues that Swiss military peace support will probably die out after Swisscoy. Despite a general trend towards military peacekeeping, the stated intention of the Federal Government to increase the contribution to military peace support, as well as the beneficial and largely successful experience in Kosovo, the future of Switzerland's military peacekeeping looks grim. If new substantial military missions fail to materialise, the Swiss Armed Forces could find themselves internationally isolated, and – as a logical consequence – its transformation into a modern military force would be hampered. On the way to this conclusion, the paper will first give a historical overview of Swiss peacekeeping and present the evolution of Switzerland's security and defence policy since the end of the Cold War. Then, the history and present state of the Swisscoy will be analysed. Thirdly, I will evaluate the Swiss military experience in Kosovo, and draw conclusions on the actual state and the future of Switzerland's military peacekeeping more generally.

From Autonomy to Cooperation?

During the Cold War, Switzerland was neutral in its status and policy, and did not take part in any military alliance or defence arrangement. In line with their neutrality, the Swiss maintained the military policy of armed neutrality, which aimed at dissuading a potential attacker or, if need be, defending the national territory. Therefore, they relied on large and rather well-equipped conscript armed forces. This defensive posture evolved largely in reaction to the European Cold War, wherein the Soviet Union was perceived as the most probable aggressor.[7] Due to this strict understanding of neutrality, Switzerland's participation in peace-building was very limited during the Cold War, and remained mostly within the limits of good offices. In 1953, Berne agreed to send approximately 100 officers and other ranks to Korea to support the Neutral Nations Supervisory Commission in overseeing the armistice between the two Koreas. Yet as Switzerland had been chosen by the Western Allies and was thus perceived – together with Sweden – as a western neutral in the

commission, the Federal Government became reluctant to engage again in additional peacekeeping efforts abroad. Accordingly, from the 1960s on, the Swiss were only willing to take on logistical, technical and humanitarian tasks in peacekeeping operations in Congo, Cyprus and the Middle East. On a military level, these activities were limited to such "niche" activities as the sending of individual officers or medical and logistical units. During the late 1980s, in view of the failed attempt to join the UN, Switzerland increased its support to UN peacekeeping operations. But this support remained limited to providing mostly civilian personnel, as well as technical and financial means.[8]

In the wake of the dramatic changes in the European strategic environment after the fall of the Berlin Wall, the Federal Council reaffirmed its commitment to increase Switzerland's role in international peace-building. In 1990, Berne reacted with a new security policy. In addition to conventional threats, the white paper listed the dangers resulting from natural and man-made disasters, migratory flows, ethnic conflicts, etc. As a corollary, it was foreseen that, in addition to territorial defence, the armed forces also participate in peacekeeping and support civil authorities at home.[9] In the military reform of 1992, due to the clinging to neutrality, homeland defence remained the armed forces' main task. But nevertheless, the participation in peace missions was for the first time listed as one of the tasks.[10] In 1994, however, the timid attempt to create an international role for the Swiss Armed Forces suffered a significant setback, as the population rejected the participation of armed Swiss soldiers in UN peacekeeping missions.[11]

The political leadership nevertheless remained decided to follow the path of a more international strategy, and after joining NATO's Partnership for Peace (Pep) in 1996, it presented the new security policy "Security through Cooperation" in 1999. Switzerland was not supposed to find its security autonomously, but in cooperation with other countries and authorities, inside and outside of the country. International peace support and crisis management gained in importance and seemed to reach parity with territorial defence. The white paper called on the armed forces to develop a capacity to intervene and cooperate at home and, more particularly, abroad.[12] By the early 2000s, the majority of the population approved this increasingly international security outlook by voting first in favour of the

participation of armed soldiers in peacekeeping missions, and then for UN-membership.[13] In 2003, the Swiss approved a military reform in line with the new security policy, which aimed at preparing the armed forces for their new and cooperative role: the interoperability was increased by a modular structure (battalions instead of corps), organisational measures were taken to improve the jointness, the territorial defence capacity was cut back and, despite maintaining conscription, the strength was almost halved to 220,000 soldiers.[14]

Yet both the new security policy and the new defence reform were never entirely put into practice. The commitment to peacekeeping has largely been limited to the Balkans, and Swiss security policy has become increasingly inwards-looking. Neutrality's rise to new prominence, the increasing fear of terrorism, the absence of a conventional military threat, and financial pressure led the authorities to search for an increased role for the armed forces inside the country. The partial defence reform "Development Step 2008/11", even though it called for a numerical increase in PSOs from a little more than 200 to 500 soldiers, mainly redistributed resources from territorial defence to the domestic support role.[15] The new security policy of 2010, which has yet to be approved by Parliament, confirms this reorientation. Admittedly, this policy is not a strategy, but a mere compromise between domestic political forces.[16] Although the conservatives succeeded in restoring the importance of territorial defence on paper, and the liberals could preserve limited international cooperation, these roles are outweighed by the armed forces' domestic tasks.[17] In line with this security policy, the "Army Report 2010" outlines the Government's view on the armed forces' future development. Even though the PSO personnel is supposed to be increased to 1,000, and national defence is described as the armed forces' key competence, the bulk of the resources is dedicated to domestic tasks. Meanwhile, with no potential aggressor in sight, the Federal Council intends to reduce the strength to 80,000 soldiers, to freeze the military budget at SFr. 4.4 billion and, despite conscription, to enlarge the armed forces' professional core and stand-by force.[18] Yet, as will be discussed later, it is highly unlikely that the Swiss Armed Forces of the future will look like this, especially with regard to their role in PSOs.

The ambiguity of Switzerland's post-Cold War security and defence policy clearly appears in its participation in military peacekeeping. Although there

has been a significant increase over the last twenty years, Swiss contributions have nonetheless been quantitatively and qualitatively limited – especially if compared to the contributions of the other Cold War neutrals Austria, Finland, Ireland and Sweden.[19] Admittedly, with the vote against the participation in UN peacekeeping missions in 1994, the armed forces' new international role did not have a very promising start. As a result, Switzerland's military peace support role was limited to the sending of unarmed military observers, most prominently for OSCE missions and to the Balkans. But with the more cooperative security strategy of the late 1990s and early 2000s, came the first Swiss military deployment of company-size since the Neutral Nations Supervisory Commission in Korea. In 1999, the initially unarmed Swisscoy was sent to Kosovo to participate in the NATO-led KFOR.[20]

The Swiss confirmed their commitment to the Balkans in 2001, as they approved the arming of their soldiers – for self-defence only – in PSOs abroad. This gave Swiss peacekeeping a wholly new dimension, as it enabled the Swisscoy to take over also traditional military tasks. On the same basis, Switzerland participates since 2004 with approximately twenty soldiers in Bosnia and Herzegovina in the EU mission EUFOR ALTHEA with so-called Liaison and Observation Teams (LOT). But to date, the Swisscoy remains the centre-piece of Switzerland's military peacekeeping, which focuses predominantly on the Balkans and pales in comparison to the peace support activities of Austria, Finland, Ireland and Sweden.[21]

The Kosovo Experience

The Kosovo War of the late 1990s had an important impact on Switzerland, which in the wake of the flood of refugees hosted the largest amount of Kosovo Albanians in proportion to its population. As the episode of the Bosnian crisis in 1995/96 had demonstrated to the Swiss Government, international peace and humanitarian operations could reduce the refugee flows towards Europe. Moreover, it was realised that Switzerland's participation in such operations was advisable, if support from other countries in dealing with the Kosovo Albanian refugees was expected.[22] As a result, the Swiss made already a military contribution to international humanitarian activities during NATO's bombing campaign. In April 1999, the Federal Government decided to launch "Operation

Alba", which consisted of Swiss Air Force Super-Puma helicopters to provide logistical support for the UNHCR.[23]

Also in April, then Defence Minister Adolf Ogi suggested to his fellow Federal Councillors to participate in an international peacekeeping mission in Kosovo after the end of hostilities. In addition to humanitarian reasons and the need to reduce the refugee flow to Switzerland, he also saw an opportunity to put the coming cooperative security policy into practice. As the fighting over Kosovo came to an end in early June, and the UN passed the resolution for an international peacekeeping force, he could finally convince the Federal Council to send troops. On 23 June 1999, the Swiss Government decided in favour of a military participation in KFOR. The Swisscoy was to be composed of 160 volunteers, and the mission to participate in the pacification and reconstruction of Kosovo was provisionally limited until 2000. As the Swiss soldiers were to be unarmed – for Swiss military law forbade the sending of armed units abroad – their activities were limited to logistical, transport, infrastructure and medical tasks. In return for this support role, the Austrian Contingent (AUCON) agreed to protect the Swisscoy.[24]

After three months of planning and training,[25] the first Swiss contingent arrived in Kosovo in early October 1999, four months after most other national KFOR contingents.[26] As planned, the Swisscoy was assigned to the AUCON in the sector of the Multinational Brigade South (MNBS), and shared a camp together with Austrians and Germans in Suva Reka, in the Prizren district of Southern Kosovo. Although the Swiss soldiers successfully fulfilled their supportive role, the fact that they were unarmed proved to be critical and inefficient.[27] The leadership of the Austrian and German contingents were full of praise when it came to the actual work and the non-lethal equipment of the Swisscoy. Yet they criticised that being unarmed it was not a fully functional military unit, and was to a certain extent a burden: it could neither participate in military peacekeeping, nor in protecting the camp; and the Austrians had to divert their forces to protect it. The Swiss were aware of these limitations and felt a certain impotency. This was most obvious in their very limited mobility, for if they wanted to work outside the camp, they had to be accompanied by their armed Austrian colleagues. But overall, the Swiss Government was satisfied with the Swisscoy, and in October 2000 it prolonged the mission for another year.[28]

Nevertheless, the Federal Council was not blind to the problems of an unarmed Swiss contingent. Already in October 1999, and in line with the new cooperative security policy, it requested to change the military law (article 66) to allow for the arming of an entire military contingent for self-defence purposes in PSOs. By mid-2001, both the Federal Assembly and the people had accepted this change. The caveat of the modified article was, however, that the sending of more than 100 armed soldiers abroad requested the Parliament's approval. In September 2001, the Federal Council thus submitted a bill to upgrade and prolong the Swisscoy mission to the two Federal Chambers. The upgrade did not only include the equipment of the soldiers with personal weapons, but also important qualitative and quantitative changes to the operation: the Swisscoy was to receive a unit for security tasks – equipped with armed armoured personnel carriers (93 Piranhas) – to participate in the guarding of the camp, the protection of convoys and Swiss construction sites, as well as to carry out road checks and patrols; and, through the deployment of a Super-Puma helicopter, Switzerland was to help filling the gap in KFOR air transport capacities. As a consequence of these changes, the strength was to be increased to 220.[29] On these lines, the Federal Assembly approved to prolong the mission in Kosovo until 2003.[30]

By autumn 2002, the first armed Swisscoy contingent of 220 soldiers had been put in place and began to fulfil its expanded mission.[31] Already in spring 2003, the Federal Government gave a positive evaluation of the transformed operation and its achievements. The arming had happened without any difficulties, was considered appropriate, and the Swiss soldiers had given a good account of themselves, inasmuch in their support as in their military peacekeeping and air transport role. The expanded mission was praised by Switzerland's KFOR partners and by the Supreme Headquarters Allied Powers Europe (SHAPE). The NATO powers were certainly satisfied, but in light of their priorities shifting towards Iraq and Afghanistan and the resulting force reductions in Kosovo, they intended to spur Switzerland on to make additional compensating contributions in the Balkans. Although the Swiss were flattered, their militia system set limits to operations abroad. Nonetheless, the Federal Council still believed that the Swisscoy had a positive impact on the military reform under way, and was a sign of solidarity in helping to create a peaceful and stable Kosovo, which was in the interest of Switzerland and the whole of Europe.[32] On

these grounds, the Federal Assembly agreed to prolong the mission without increasing it for another two years.[33]

Everything seemed to proceed according to plan. But in March 2004, the eruption of violent unrest between ethnic Albanians and ethnic Serbs caught the UN Interim Administration Mission in Kosovo (UNMIK) and KFOR by surprise. During approximately two days, these organisations lost control over the situation, were unable to provide security to all inhabitants of Kosovo, and reacted hesitantly or too late. The violent unrest was a serious setback for the stabilisation efforts in the region. While KFOR and especially UNMIK incurred a heavy credibility loss, the Swisscoy gave a good account of itself during these crisis days. Together with their Austrian colleagues, Swiss infantry soldiers succeeded in keeping Albanians and Serbs at a distance, and prevented Albanians from assaulting the Serb district of Orahovac in western Kosovo. As a result, the esteem of the Swiss troops in Kosovo remained high. This episode had, however, an impact on both the KFOR and the Swisscoy mission.

Switzerland's NATO partners temporarily halted their troop reductions, reaffirmed their commitment to a secure, stable and multi-ethnic Kosovo at the Atlantic Alliance's 2004 Istanbul summit, and reorganised KFOR for being able to anticipate and prevent renewed eruptions of violence.[34] This brought also modifications to the Swisscoy: the infantry unit was expanded through the reduction of engineering and logistical troops; Swiss soldiers became part of KFOR's tactical reserve; and infantry soldiers received additional training and equipment to meet violent unrest. The most significant consequence of this episode for Switzerland was, however, that the mission was questioned at home. It was feared that if the situation in Kosovo would get completely out of control, Swiss soldiers could become involved in peace-enforcement operations – which Switzerland's interpretation of neutrality and military law forbade. Nevertheless, the Federal Council remained determined to stay in Kosovo, and thus had to argue strongly in favour of renewing the Swisscoy mandate in late 2004. According to the Federal Council, the events in 2004 had made it clear that an international peacekeeping force remained essential for building a secure and stable Kosovo. It was feared that a renewed outbreak of civil war in this region could lead again to large refugee flows, to conflicts between the Albanian and Serbian Diasporas, and to increased Albanian criminality in Switzerland. Therefore, it was argued, the Swisscoy had to

remain in Kosovo.[35] The Federal Assembly accepted this view, and the slightly modified mission was prolonged until 2008.[36]

Thereafter, the Swiss population's fear of an escalation of violence did not materialise. KFOR was restructured according to plans, and the four MNBS were replaced by five Multinational Task Forces (MNTF). This new structure had to allow for more flexibility and mobility, as well as for operations outside the former brigade areas through so-called "Cross Boundary Operations". The Swisscoy's infantry unit was – in addition to its traditional security tasks – periodically employed in such operations with different MNTFs, and its logistical and air transport troops supported MNTF South (S). In both these roles the Swiss earned praise from their KFOR partners, and the local population continued to hold the Swisscoy in high esteem.[37]

While KFOR's efforts contributed to a more stable Kosovo, the status of this region remained unresolved. The Ahtisaari Plan, which involved quasi-statehood for Kosovo, was vetoed by Russia. But in early 2008, backed by major western powers – such as the US and the UK – the ethnic Albanian leadership unilaterally declared Kosovo's independence. Switzerland was among the first countries to recognize the new state, and the Federal Government declared its commitment to the Swisscoy mission, and to provide judicial and police support to the European Union Rule of Law Mission (EULEX) to Kosovo.[38] Already before the proclamation of independence, Berne had been determined to prolong the Swisscoy deployment until 2011. It had even requested the possibility to increase the mission by 50 soldiers, if a deteriorating situation would require reinforcements.[39] The SVP and the Green Party opposed the Federal Council, and argued that to remain in Kosovo after a unilaterally proclaimed and disputed independence discredited Switzerland's neutrality status. They were, however, unsuccessful, and the Federal Assembly followed the government.[40] The need for additional troops did not materialise. The Swisscoy continued to fulfil its tasks as before, and was for the first time given the opportunity to guard the KFOR headquarters in Pristina.[41]

Although Kosovo was still far from being a modern and functioning democratic state, the security situation continued to improve. KFOR thus decided to start the phase called "Deterrent Presence", which led to

important troop reductions in two steps. The first reduction to 10,000 has already been made, and the second step with a reduction down to 5,000 is actually taking place. Moreover, in February 2010, the MNTFs were succeeded by mission-tailored Multinational Battle Groups (MNBGs). Through these changes and the important reductions of the international military presence in Kosovo, the Swiss contribution has increased in significance. In addition to its security, logistical and air transport support roles, the Swisscoy has taken on new tasks while maintaining the same personnel strength. Since early 2010, Switzerland has provided an Explosive Ordnance Disposal (EOD) unit, and four Liaison and Monitoring Teams (LMT) to maintain a link between the population and KFOR, and to anticipate outbreaks of violence.[42] Whereas he remains sceptic about Switzerland's participation in PSOs, Defence Minister Ueli Maurer visited the Swisscoy in late 2010 and has endorsed the Federal Council's decision to prolong the mission until 2014, which has yet to be approved by Parliament.[43]

Consequently, Switzerland's military commitment to Kosovo lasts already for more than a decade, and will continue well into the 2010s. Yet one can question its benefits, the Swiss Armed Forces' PSO capacities, and whether the Swiss will increase, reduce or abolish their cooperative military peacekeeping role.

Benefits and Obstacles

Switzerland's participation in KFOR was the first and so far the only time that a relatively large national military unit was integrated into a NATO-led PSO. With the exception of the largely successful intervention during the violent unrest of 2004, the Swisscoy's work has been rather unspectacular. Nevertheless, the contribution is important, for it helps preventing violent unrest and protecting the different ethnic groups. In short, the Swiss play a role in bringing security and stability – the conditions for a successful reconstruction – to Kosovo.[44] A stable and democratic Kosovo is not only in the interest of Switzerland's security, but also of its armed forces, which have been able to discover their strengths and weaknesses for future PSOs.

Both Bern and the KFOR partners are satisfied with the Swisscoy. While the infantry unit has stood up to its role as a security provider, the Swiss contingent has performed particularly well in "niche" capacities, such as

logistics, construction, transport and EOD. In these tasks, the professional background of Swiss militia soldiers has proved to be a significant asset, as they bring expert knowledge from their civilian lives as policemen, builders etc. Moreover, their generally good language skills have been helpful for the cooperation in multinational staffs and with local partners and NGOs. When it comes to equipment, the Swiss do not have to shy away from comparison with partner contingents, for they possess modern infantry, logistical, transport, engineering and technical equipment. Since the initial deployment in 1999, the Swisscoy has also adapted the material to its evolving roles and needs on the ground. More generally, the experience within KFOR has provided the Swiss Armed Forces with an opportunity to test interoperability and capacities in international crisis management, as well as to "learn lessons" for their training and development.[45] While these lessons have gradually improved the training of new Swisscoy contingents, they are also of use to the general military training. Finally, officers and other ranks who have served abroad provide their units at home with practical military experience.[46]

Meanwhile, the Swisscoy has not encountered any significant recruitment difficulties. On average, there have been 600 to 1000 applicants for the 220 places in each contingent, and there has only been a shortage of doctors and staff officers.[47] The average volunteer is neither an adventurer, nor is he financially motivated. The motivation stems rather from the desire to contribute to the common good, the belief in the meaningfulness of the tasks, and the search for a new challenge. These incentives are not frustrated on the ground, and are also responsible for the soldiers' high personal satisfaction during the mission.[48] But despite these positive recruitment experiences, the militia system with its limited personnel resources is a significant stumbling block to maintain or increase the Swiss Armed Forces' participation in PSOs.

Successful participation in peacekeeping and international crisis management requires available and rapidly deployable military forces, as well as a personnel reservoir to sustain the mission.[49] Yet the militia system does hardly fulfil these conditions, there are not many professional servicemen, and practical experience abroad is not a condition *sine qua non* for a military career. As a result, the Swiss Armed Forces have only very few and small standing military formations available, and it would take several months to recruit a contingent. The recruitment has to take place

on an all-volunteer basis, for both the militia and even the professional personnel have no obligation to serve abroad.[50] Moreover, long-term deployments can be problematic for militia personnel, because they could miss the boat in their civil-professional life. It would thus not only be difficult to rapidly increase the Swisscoy, but also to add another operation. Manpower is not, however, the sole limitation. The political process can also delay the sending of troops, for Switzerland's participation in PSOs necessitates not only a UN or an OSCE mandate, but also the Federal Assembly's approval. Finally, military peacekeeping has not been a determinant factor in the structural development of the armed forces. The organisational and logistical structures are not sufficiently geared towards long-lasting and large operations abroad.[51]

Consequently, Swiss PSO contingents are relatively small. It is undisputed, that Switzerland's military peacekeeping contributions have been of high quality, but in relation to an entire multinational operation they remain subcritical. This has even been the case in Kosovo, where the Swisscoy is Switzerland's most significant PSO-contribution to date. Moreover, in contrast to the other Cold War neutrals – Austria, Finland, Ireland and Sweden – the Swiss Armed Forces are not allowed to participate in peace-enforcement operations, and remain limited to traditional peacekeeping and "niche" contributions. With the partial exception of the Swisscoy infantry unit, this policy is insofar problematic that it does not allow for gaining practical experience in purely military tasks. Correspondingly, officers rarely have the opportunity to practice command in real-time military operations. Finally, as the Swiss arrive after most other national contingents in the operational zone, and are neither a NATO nor an EU member, they do not participate in the planning stage of the operation. As a result, the strategic, doctrinal and tactical lessons are limited. The latter would be, however, essential for the future development of the Swiss Armed Forces.[52]

In sum, although the Swisscoy has provided valuable lessons and can be sustained, Switzerland's participation in PSOs remains limited and hampered by its military system. Therefore, the mission in Kosovo does not have a significant impact on the armed forces, and a rapid and sustainable deployment of troops to the same or another theatre would face almost un-surmountable difficulties.

Conclusion and Outlook

The Federal Council as a whole desires to prolong the Swisscoy mission. As the operation can be sustained at relatively low cost, and does not question the armed forces' territorial defence and domestic support roles, the Federal Assembly will probably follow suit. In addition, they are aware that a stable Kosovo is in Switzerland's interest, because of the country's large Albanian and Serbian Diasporas and relative geographic proximity to the Balkans. Notwithstanding these rather selfish considerations, Kosovo's future remains uncertain, and it is still far from being a functioning, stable and internationally recognised democracy.[53] It is thus important that KFOR, which has the highest leverage among all the international or regional organisations operating in Kosovo, continues to provide military security for civil reconstruction.[54] More specifically, in light of KFOR troop reductions, the steady Swiss PSO commitment to Kosovo has gained in importance. Nevertheless, the civilian side of peace support will hopefully start outweighing the military side, and make the Swisscoy superfluous. With no other mission in sight, Switzerland's withdrawal from Kosovo would temporarily end the Swiss Armed Forces' role in military peacekeeping.

Increased participation in PSOs is, however, in Switzerland's interest, for it is beneficial to Swiss security; provides an opportunity to get involved in the planning and decision-making processes of operations within international organisations; gives practical military experience, which contributes to the future development and modernisation of the armed forces; enables professional officers to qualify for positions in military bodies of international organisations, such as the UN Department of Peacekeeping Operations; provides access to the military know-how of other nations; and last but not least, demonstrates Switzerland's solidarity to the world. Thus, the Swiss could consider – in addition to KFOR – taking part in large UN or EU PSOs on Europe's periphery.[55]

Yet although Swiss military participation in PSOs, even in NATO-led operations, is not limited by legal constraints, the future looks rather the opposite. In contrast to the late 1990s and early 2000s, the Swiss Government's margin of manoeuvre for international cooperation has become increasingly narrow. The government's last white paper, which calls on the armed forces to increase their role in PSOs, has already been

opposed by the conservatives, who believe that military peacekeeping is incompatible with neutrality.[56] As liberals do not want to return to a Cold War defence posture and many social-democrats have joined the green party in its desire to abolish first conscription and then the armed forces, the latter will probably continue to search refuge in domestic tasks within Swiss borders.[57] With the increasing polarisation of political forces in Parliament and a Defence Minister who openly criticises military operations abroad, a new significant Swiss military peacekeeping contribution seems unlikely. As a country that lacks the political will to contribute another large contingent to PSOs, Switzerland will thus continue to focus on its role as a provider of "specialised" or "niche" capacities.[58]

---

[1] Bellamy, Alex J.; Williams, Paul; Griffin, Stuart, *Understanding Peacekeeping* (Cambridge: Polity Press, 2004) pp. 75-92, 165.

[2] On the interplay between these four organisations in Kosovo see Dursun-Ozkanca, Oya, "Does it take four to tango? A comparative analysis of international collaboration on peacebuilding in Bosnia and Herzegovina and Kosovo", *Journal of Balkan and Near Eastern Studies*, Vol. 12, No. 4, 2010, pp. 443-451.

[3] Misteli, Valentin; Möckli, Daniel; Wyss, Marco, *Streitkräftetransformation neutraler und allianzfreier Staaten: Schweiz, Schweden, Österreich, Finnland und Irland im Vergleich*, Ressortforschung zuhanden des Eidgenössischen Departements für auswärtige Angelegenheiten, (Zürich: Center for Security Studies (CSS) ETH Zürich, 2010) *passim*.

[4] For the Swiss population's view on Switzerland's security policy and armed forces see Szvircsev Tresch, Tibor; Wenger, Andreas; Würmli, Silvia; Bisig, Esther, *Sicherheit 2010: Aussen-, Sicherheits- und verteidigungspolitische Meinungsbildung im Trend*, (Zurich: Center for Security Studies and Military Academy ETH Zurich, 2010).

[5] Andrey, Marjorie, "Security Implications of Neutrality: Switzerland in the Partnership for Peace Framework", *Connections: The Quarterly Journal*, Vol. 9, No. 4, 2010, 88-95.

[6] Furer, François; Frik, Walter, „Wenn wir schon Auslandeinsätze machen, dann möglichst gut…", Interview with Federal Councillor Ueli Maurer, *Swiss Peace Supporter*, No. 2, 2009, p. 5.

[7] Jean-Marc Rickli, "European small states' military policies after the Cold War: From territorial to niche strategies", *Cambridge Review of International Affairs*, Vol. 21, No. 3, 2008, pp. 311-312.

[8] Fanzun, Jon A.; Lehmann, Patrick, *Die Schweiz und die Welt: Aussen- und sicherheitspolitische Beiträge der Schweiz zu Frieden, Sicherheit und Stabilität, 1945-2000*, Zürcher Beiträge zur Sicherheitspolitik und Konfliktforschung Nr. 57, (Zürich: Forschungsstelle für Sicherheitspolitik und Konfliktanalyse der ETH Zürich, 2000) pp. 109-115; Wenger, Andreas; Mauer, Victor; Schwerzmann, Dominik, *Die Schweiz und friedensunterstützende Operationen: Trends, Chancen, Herausforderungen*, (Zürich: Center for Security Studies ETH Zurich, 2003) pp. 23-25. See also Haudenschild, Roland, „Auslandeinsätze der Schweizer Armee", *Allgemeine Schweizerische Militärzeitschrift* (hereafter *ASMZ*), Vol. 172, No. 1, 2006, pp. 14-15.

[9] „Schweizerische Sicherheitspolitik im Wandel: Bericht 90 des Bundesrates an die Bundesversammlung über die Sicherheitspolitik der Schweiz vom 1. Oktober 1990", *Bundesblatt*, 1990, pp. 847-904.

[10] „Bericht des Bundesrates an die Bundesversammlung über die Konzeption der Armee in den neunziger Jahren (Armeeleitbild 95) vom 27. Januar 1992", *Bundesblatt*, 1992, pp. 850-1015.

[11] Spillmann, Kurt; Wenger, Andreas; Breitenmoser, Christoph; Gerber, Marcel, *Schweizer Sicherheitspolitik seit 1945: Zwischen Autonomie und Kooperation,* (Zürich: Verlag Neue Zürcher Zeitung, 2001) pp. 190-191.

[12] „Sicherheit durch Kooperation: Bericht des Bundesrates an die Bundesversammlung über die Sicherheitspolitik der Schweiz (SIPOL B 2000) vom 7. Juni 1999", *Bundesblatt*, 1999, pp. 7657-7734.

[13] Andreas Wenger, „Herausforderung Sicherheit: Eine Beurteilung der sicherheitspolitischen Grundlagen der Schweiz mit Blick auf die Zukunft", in Wenger, Andreas (ed.), *Bulletin 2005 zur schweizerischen Sicherheitspolitik*, Zürich: Center for Security Studies ETH Zürich, 2005, p. 11.

[14] „Bericht des Bundesrates an die Bundesversammlung über die Konzeption der Armee XXI (Armeeleitbild XXI) vom 24. Oktober 2001", *Bundesblatt,* 2002, pp. 967-1051.

[15] „Botschaft über die Änderungen der Armeeorganisation und des Bundesgesetzes über die Massnahmen zur Verbesserung des Bundeshaushaltes (Rechtliche Anpassungen zur Umsetzung des Entwicklungsschrittes 2008/11 der Armee) vom 31. Mai 2006", *Bundesblatt*, 2006, pp. 6197-6248.

[16] Daniel Möckli (ed.), *Umstrittene Schweizer Sicherheitspolitik: Dokumentation der Hearings zum Bericht 2010*, Zurich: Center for Security Studies, 2010, *passim.*

[17] „Bericht des Bundesrates an die Bundesversammlung über die Sicherheitspolitik der Schweiz vom 23. Juni 2010", *Bundesblatt*, 2010, pp. 5133-5221.

[18] „Armeebericht 2010 vom 1. Oktober", http://www.news.admin.ch/NSBSubscriber/message/attachments/20669.pdf, accessed on 3.11.2010.

[19] Wenger, Andreas; Mauer, Victor, „Die Schweiz und friedensunterstützende Operationen: Eine verteidigungspolitische Herausforderung mit strategischer Dimension", in Wenger, Andreas (ed.), *Bulletin 2004 zur schweizerischen Sicherheitspolitik*, Zürich: Center for Security Studies ETH Zürich, 2004, p. 19.

[20] Fanzun, Lehmann, *op. cit.*, pp. 115-119; Wenger, Mauer, Schwerzmann, *op. cit.*, pp. 25-26.

[21] Wicki, Dieter, „Perspektiven für das künftige schweizerische Engagement im Bereich der militärischen Friedensförderung", in Wenger, Andreas; Victor, Mauer (ed.), *Bulletin 2006 zur schweizerischen Sicherheitspolitik*, Zürich: Center for Security Studies, 2006, pp. 114, 117. For an overview of Swiss peace support see SWISSINT, "Peace Support Factsheet", *Federal Department of Defence, Civil Protection and Sport*, http://www.vtg.admin.ch/internet/vtg/en/home/themen/einsaetze/peace/factsheet.html, accessed on 14.02.2011.

[22] Wenger, Andreas; Breitenmoser, Christoph; Mäder, Markus, „SWISSCOY-Einsatz im Kosovo: Erster Schritt der Schweizer Armee zur militärischen Normalität in der Sicherheitskooperation", in Gabriel, Jürg Martin (ed.), *Schweizerische Aussenpolitik im Kosovo-Krieg*, Zürich: Orell Füssli, 2000, pp. 122-123.

[23] Borchert, Heiko, "The Kosovo Conflict and the Swiss Contribution", *European Security*, Vol. 8, No. 4, 1999, pp. 176-177.

[24] „Schweizer Beteiligung an Kosovo-Friedenstruppe: Weiteres Massnahmenpaket zur Balkanpolitik", *Neue Zürcher Zeitung* (hereafter *NZZ*), 24.06.1999, p. 13.

[25] „Die Planungsmaschine für Kosovo-Einsatz läuft: ‚Swiss Company' ab Mitte September operationell", *NZZ*, 08.07.1999, p. 11.

[26] Wenger, Breitenmoser, Mäder, *op. cit.*, pp. 124-125.

[27] Ernst, Andreas, „Casablanca liegt am trockenen Fluss: Augenschein bei der Swiss Company in Suva Reka", *NZZ*, 16.10.1999, p. 15.

[28] „Die Swisscoy in Kosovo – Anspruch und Realität: Bewaffnungsfrage sorgt für Differenzen", *NZZ*, 13.12.1999, p. 9; „‚Kleiner, aber feiner Beitrag': Verlängerung des Swisscoy-Einsatzes", *NZZ*, 26.10.2000, p. 13.

[29] „Botschaft zum Bundesbeschluss über die Schweizer Beteiligung an der multinationalen Kosovo Force (KFOR) vom 12. September 2001, *Bundesblatt*, 2001, pp. 6068-6078; „Sicherheitskräfte für die Swisscoy: Parlament entscheidet über Verlängerung des Einsatzes", *NZZ*, 14.09.2001, p. 13.

[30] „Bundesbeschluss über die Schweizer Beteiligung an der KFOR vom 12. Dezember", *Bundesblatt*, 2001, p. 6555.

[31] „Swisscoy erstmals bewaffnet im Auslandeinsatz: Siebtes Kontingent tritt den Dienst an", *NZZ*, 05.10.2002, p. 14.

[32] „Botschaft zum Bundesbeschluss über die Schweizer Beteiligung an der multinationalen Kosovo Force (KFOR) vom 14. März 2003“, *Bundesblatt*, 2003, pp. 3149-3162; „Schmid hält an Swisscoy-Einsatz fest“, *NZZ am Sonntag*, 02.03.2003, p. 10; „Bericht 2003 über den Einsatz der Schweizer Kompanie (SWISSCOY) in der multinationalen Kosovo Force (KFOR) zuhanden der Aussenpolitischen und Sicherheitspolitischen Kommissionen des National- und Ständerates“, *Federal Department of Defence, Civil Protection and Sport*, http://www.vtg.admin.ch/internet/vtg/de/home/themen/einsaetze/peace/swisscoy.parsys.49441.downloadList.80287.DownloadFile.tmp/swisscoybericht2003d.pdf, accessed on 16.02.2011.

[33] „Bundesbeschluss über die Beteiligung an der KFOR vom 22. September 2003“, *Bundesblatt*, 2003, pp. 6881-6882.

[34] “Istanbul Summit Communiqué”, 28.06.2004, *NATO Press Releases*, http://www.nato.int/docu/pr/2004/p04-096e.htm, accessed on 17.02.2011.

[35] „Botschaft zum Bundesbeschluss über die Schweizer Beteiligung an der multinationalen Kosovo Force (KFOR) vom 3. Dezember“, Bundesblatt, 2005, pp. 447-462; „Bericht über den Einsatz der Schweizer Kompanie (SWISSCOY) in der multinationalen Kosovo Force (KFOR) zuhanden der Aussenpolitischen und Sicherheitspolitischen Kommissionen des National- und Ständerates“, *Federal Department of Defence, Civil Protection and Sport*, http://www.vtg.admin.ch/internet/vtg/de/home/themen/einsaetze/peace/swisscoy.parsys.0007.downloadList.00071.DownloadFile.tmp/swisscoybericht2005d.pdf, accessed on 17.02.2011.

[36] „Bundesbeschluss über die Schweizer Beteiligung an der KFOR vom 6. Juni 2005“, *Bundesblatt*, 2005, pp. 4265-4266.

[37] „Bericht 2006 über den Einsatz der Schweizer Kompanie (SWISSCOY) in der multinationalen Kosovo Force (KFOR) zuhanden der Aussenpolitischen und Sicherheitspolitischen Kommissionen des National- und Ständerates“, *Federal Department of Defence, Civil Protection and Sport*, http://www.vtg.admin.ch/internet/vtg/de/home/themen/einsaetze/peace/swisscoy.parsys.0008.downloadList.00081.DownloadFile.tmp/swisscoybericht2006d.pdf, accessed on 17.02.2011.

[38] „Schweiz anerkennt Unabhängigkeit Kosovos: Serbien beruft Botschafter zu Konsultation nach Belgrad zurück“, *NZZ*, 28.02.08, p. 15.

[39] „Botschaft zum Bundesbeschluss über die Verlängerung der Schweizer Beteiligung an der multinationalen Kosovo Force (KFOR) vom 21. Dezember 2007“, Bundesblatt, 2008, pp. 517-530.

[40] „Die Swisscoy bleibt im unabhängigen Kosovo: Nationalrat verlängert Einsatz gegen Widerstand von SVP und GP“, NZZ, 06.03.2008, p. 16; „Bundesbeschluss

über die Verlängerung der Schweizer Beteiligung an der multinationalen Kosovo Force (KFOR) vom 11. Juni 2008", *Bundesblatt*, 2008, pp. 5791-5792.

[41] „Bericht 2008 über den Einsatz der Schweizer Kompanie (SWISSCOY) in der multinationalen Kosovo Force (KFOR) zuhanden der Aussenpolitischen und Sicherheitspolitischen Kommissionen des National- und Ständerates", *Federal Department of Defence, Civil Protection and Sport*,

http://www.vtg.admin.ch/internet/vtg/de/home/themen/einsaetze/peace/swisscoy.parsys.14706.downloadList.10688.DownloadFile.tmp/swisscoybericht2008d.pdf, accessed on 17.02.2011; „Bericht 2009 über den Einsatz der Schweizer Kompanie (SWISSCOY) in der multinationalen Kosovo Force (KFOR) zuhanden der Aussenpolitischen und Sicherheitspolitischen Kommissionen des National- und Ständerates", *Federal Department of Defence, Civil Protection and Sport*, http://www.vtg.admin.ch/internet/vtg/de/home/themen/einsaetze/peace/swisscoy.parsys.47191.downloadList.45682.DownloadFile.tmp/sb2009d.pdf, accessed on 17.02.2011; Gschwind, Muriel, „Stramm und strikt – aber freundlich", Swiss Peace Supporter, No. 1, 2009, pp. 14-15.

[42] "NATO's role in Kosovo", *NATO*,

http://www.nato.int/cps/en/natolive/topics_48818.htm, accessed on 17.02.2011; Amsler, Robert, „KFOR – Übergang in neue Phase", *Swiss Peace Supporter*, No. 4, 2009, pp. 14-15; Furer, François, "SWISSCOY vor neuen Aufgaben", *Swiss Peace Supporter*, No. 1, 2010, pp. 12-13; Amsler, Robert, „KFOR – Deterrent Presence. Mögliche Entwicklungen und Stand der Planungen", *Swiss Peace Supporter*, No. 3, 2010, pp. 22-23; Zehnder, Christoph, „LMT Prizren – das jüngste Kind der SWISSCOY", *Swiss Peace Supporter*, No. 4, 2010, pp. 24-25; „Retuschen am Swisscoy-Auftrag", *NZZ*, 21.10.09, p. 13; Mettler, Hanspeter, „Das Mandat der Swisscoy vor Veränderungen: Folge der geplanten Truppenreduktion in drei Schritten bei der Kosovo Force", *NZZ*, 23.12.2009, p. 13.

[43] Zehnder, Christoph, „Bundesrat Ueli Maurer besucht die SWISSCOY", *Swiss Peace Supporter*, No. 4, 2010, pp. 22-23; „Bundesrat verlängert Mandat der Swisscoy: Stabilität in Kosovo bleibt wichtig", *NZZ*, 18.11.2010, p. 11.

[44] Kunz, Raimund, „Militärische Teilnahme an

Friedensunterstützungsoperationen", *ASMZ*, Vol. 172, No. 10, 2006, p. 10.

[45] Wenger, Mauer, Schwerzmann, *op. cit.*, p. 36; Wenger, Breitenmoser, Mäder, *op. cit.*, pp. 128-130; Andrey, *op. cit.*, p. 95; Rösli, Bruno, „Erkenntnisse aus den bisherigen PSO-Einsätzen", *ASMZ*, Vol. 172, Nr. 10, 2006, p. 23.

[46] Keller, Fredy, „Einsatzerfahrungen fliessen in die Ausbildung zurück", *ASMZ*, Vol. 175, Nr. 11, 2009, p. 19.

[47] Mettler, Hanspeter, „Swisscoy ohne Rekrutierungssorgen: Das 22. Kontingent geht nächste Woche in Kosovo in den Einsatz", *NZZ*, 27.03.2010, p. 19.

[48] Bennett, Jonathan; Boesch, Rolf P.; Haltiner, Karl W., "Motivation and Job Satisfaction in the Swiss Support Company in Kosovo", *International Peacekeeping*, Vol. 12, No. 4, 2005, pp. 562-575; „Die Bezahlung ist Nebensache': Militärische Auslandeinsätze – Abenteuer, Zwischenlösung oder Fortbildung?, *NZZ*, 19.09.2001, p. 77.

[49] Wicki, *op. cit.*, pp. 107-108.

[50] Gerber, Urs, „Schweizerische PSO-Kapazität: Was heisst ‚Verdoppelung'?", *ASMZ*, Vol. 172, Nr. 10, 2006, p. 15; Kunz, *op. cit.*, p. 11.

[51] Wicki, *op. cit.*, pp. 110-112.

[52] Rösli, *op. cit.*, p. 22; Wenger, Breitenmoser, Mäder, *op. cit.*, p. 133.

[53] Economides, Syros; Ker-Lindsay, James; Papadimitriou, Dimitris, "Kosovo: Four Futures", *Survival*, Vol. 52, No. 5, 2010, pp. 99-116; Obradovic-Wochnik, Jelena, "Kosovo: A Way to Go", *World Today*, Vol. 67, No. 2, February 2011, pp. 7-9.

[54] Dursun-Ozkanca, *op. cit.*, p. 450.

[55] Greminger, Thomas, „Ein Ausbau der militärischen Friedensförderung ist überfällig", *ASMZ*, Vol. 175, No. 11, 2009, p. 9; „Eng abgesteckter Rahmen für zusätzliche Schweizer Friedenstruppen: Augenfällige Widersprüche zwischen Strategie und Praxis", *NZZ*, 18.10.2007, p. 17.

[56] „SVP will 120 000 Soldaten: Bekräftigte Kritik am Armeebericht des Bundesrates", *NZZ*, 06.10.2010, p. 13.

[57] Senti, Martin, „Sozialdemokratie in ideologischer Reinheit: Die SP verabschiedet ihr neues Parteiprogramm", *NZZ*, 01.10.2010, p. 7.

[58] Andrey, *op. cit.*, pp. 88-94; Möckli, Daniel (ed.), „Auslandeinsätze der Armee: Stand und Optionen", *CSS Analysen zur Sicherheitspolitik*, Nr. 67, Zurich: Center for Security Studies ETH Zurich, February 2010; Taft, Patricia, "Preparing Nations for Peace: Specialized Requirements for Complex Missions", in Daniel, Donald C.F.; Taft, Patricia; Wiharta, Sharon (ed.), *Peace Operations: Trends, Progress, and Prospects*, Washington DC: Georgetown University Press, 2008, pp. 84-85.

Military History, Social Sciences, and Professional Military Education

By Dr. Eric A. Sibul[*]

Do late nineteenth century and early twentieth century ideas on educational disciplines still have relevance to professional military education as it prepares officers for an increasingly complex and dangerous world? Are the machine age concepts of theoretical social science irrelevant to contemporary officer education, or perhaps even dangerous? For a military officer to analyze and understand an increasingly complex operating environment it may be more beneficial to approach problems using the primarily analytic, critical, and speculative methods of the humanities rather the largely empirical approaches social sciences. Perhaps the use of the humanities in military education, notably history, and especially the sub-discipline of military history, may be more beneficial than the collection of social science topics that today occupy an increasing amount of time in the curricula of Western staff colleges and other professional military educational institutions. The traditionally dominant role of military history in professional military education has faced stiff competition for curriculum space from other disciplines, mainly from the political and behavioural sciences that claim to be more relevant to the task of preparing military leaders to address contemporary challenges.[1] Therefore this essay will examine the rise of the social sciences in military education and security scholarship and the misconceptions, dangers and limitations of the social sciences. As an alternative to the current trends I will propose the use of history and the case study method in the military educational curricula.

The Rise of Social Sciences and Scientific Management

Contemporary social science is largely a product of the machine age. Industrialization created a series of new social, economic, and political problems on a mass scale. The desire to come to grips with the new

[*] Baltic Defence College

problems of a mass urban society as well as the common euphoria for scientific progress in the 19th and early 20th centuries gave rise to a number of pseudo-scientific fields that were applied to human affairs. New subjects such as political science, sociology and scientific management attempted to provide a methodology of decision making that was more "scientific," and thus believed to be a superior method of managing complex problems. By the early 20th century it was widely hoped that Western nations would establish a "science of society" where the facts of human affairs were understood to be subject to deterministic laws just as in as in physics and chemistry, and these laws could be discovered by research.[2]

This "scientific" approach would soon have a widespread influence on the American armed forces. In 1899 US President William McKinley appointed Elihu Root, a corporation lawyer, as the Secretary of War with the mission of reforming the army by bringing modern business practices to the US War Department. Root was a devotee of the scientific management theories of Frederick W. Taylor, who had greatly improved 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.

The scientific management system was first applied to army manufacturing operations at arsenals and ordnance plants through efforts of the Major General William Crozier, Chief of Ordnance, 1901 – 1918 and with Root's support. Crozier took a brief absence as chief of ordnance from 1912 to 1913 to serve as the president of the Army War College. During and after the First World War scientific management practices became 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.[3] This passion for the scientific approach led to attempts to break the complex phenomenon of war into interchangeable parts into where military commanders could make decisions based on standard "scientific" principles.[4] The initiative of the individual and the decision making abilities of junior officers was distrusted in this new scientific approach to war. In this spirit Major E. S. Johnson in the *Review of Military Literature* in June 1934 commented on the need for truly 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[5]

This serves as a stark contrast to the ideas of the German Army during the same period. Since the time of Chief of Staff Helmuth Von Moltke the German Army has placed a strong emphasis on independent action and initiative by subordinate commanders, developing the system of *Aufragstaktik* or mission–oriented command system. Under *Aufragstaktik* the commander told their subordinates what to do, but not how. The system depended on a certain uniformity of thinking and reliability that was gained through thorough training and education and practical experience. The full confidence of superiors in their subordinates was indispensable under *Aufragstaktik*, and subordinates required an equal confidence in their superiors. Because of the passion for scientific management, the US Army failed to develop anything resembling *Aufragstaktik* in the years leading up to World War II.[6]

Even though scientific management came from the civilian sector, it was not universally accepted in American private industry. The biggest American business of the late 19th and early 20th centuries, the railroad industry, rejected scientific management. Railroads had a strongly hierarchical structure and employee conduct was governed by a strict system of written rules much like the military. However, railroad employees expected to carry out a multitude of tasks and were given a liberal amount of independence in accomplishing their duties. Unlike a manufacturing plant, a railroad work force had to be spread out thinly over the distance of a railroad line working under scant supervision, their work being checked by inspection. Even in large rolling stock workshops and

locomotive terminals the repair, maintenance and construction tasks were generally too varied to allow work to be broken down into standardized steps to permit mass production. Taylor's scientific management system required the constant supervision of workers and this was only possible in a large concentrated manufacturing plant.[7] However, the US Army Transportation Corps managed theatre movement under concepts developed in railroad industry, rather than through scientific management, and this approach proved highly successful during the World War II and the Korean War.[8]

But one aspect of the US Army's service and support in Second World War and Korea, notably personnel administration, was run firmly under the concepts of scientific management. Scientific management methods provided an administratively efficient personnel system to get replacements where needed, but they did not take into account the social and psychological factors required to build cohesive and effective units. In the Second World War, the army put administrative efficiency at the head of the priority list, well above other considerations. According to Hebrew University professor of military history Martin Van Creveld, this resulted in US Army combat units having low morale, poor cohesion, and a corresponding reduction in their fighting power.[9] The US Army persevered during war despite a flawed personnel system and in the elation of victory in 1945 many lessons learned regarding unit cohesion and combat effectiveness were forgotten. The personnel system, based on scientific management concepts, was legitimized by its apparent success in the Second World War and despite substantial evidence to the contrary. Many senior army officials believed that the personnel system had produced a winning army overcoming the warrior cultures of Germany and Japan. Thus, a personnel system that worked against combat effectiveness and based on Taylorian concepts remained in place through the Korean War, Vietnam and, largely, to the current day.[10]

The American military's passion for the scientific approach helped push the influence of the social sciences into the political, strategic and military decision making and enhanced the authority civilian academics and experts trained in social sciences or scientific management.[11] The influence on military education was profound as these topics became increasingly part of service school curricula. The United States was largest and most influential partner in the Cold War anti Communist alliance system and

America's generous military assistance ensured that large numbers of allied officers attended institutions such as the US Army Command and General Staff School at Fort Leavenworth. This, in turn, increased the American influence on allied armed forces, especially their officer education systems. In some cases the American approach was simply duplicated on a smaller scale, even if it did not suit a smaller partner's operational environment or military needs. For example, in the Republic of Vietnam the curriculum of the Vietnamese Military Academy in 1966 was changed from a two-year program to a four-year college on the model of the US Military Academy at West Point. Classroom instruction and curriculum were patterned after those of West Point, emphasizing electrical and mechanical engineering and the social sciences.[12] This made little sense for the armed forces of a developing nation with no major materiel research and procurement programs requiring such engineering specialties. Amidst a prolonged counter guerrilla campaign, what South Vietnam needed was large numbers of junior officers for light infantry. If any engineering specialty should have had a priority, it was civil engineering.

For the United States during the Vietnam War era military education and military strategy were firmly in the hands of a vast interlocking complex of academics, managerial experts and technocrats schooled in scientific management and the social sciences. Officer education, in the United States and other advanced Western countries focused considerable attention on the social sciences. Subjects emphasized in the staff and war colleges included political science, economics, management, sociology, communications, education, as well as mathematically-oriented operations research and systems analysis. Subjects perceived as related to the conduct of war-- such as national security, strategic studies, and military theory-- were given less attention. Indeed, military history was given the least emphasis.[13] Historian Martin Van Crevald concludes that the result was that many officers came to the belief that, "administration, not fighting, is what modern armed forces are all about."[14]

The failures of the social science and scientific management in guiding the strategy in the Vietnam War pushed many to rethink the passion for the scientific approach to strategy. The methodology of the civilian specialists that guided the war effort was the economic conflict model that used the assumption that international conflict could be analyzed in terms of rational strategic men. This approach had it limitations because it

discounted the often intangible social and cultural motivations of the enemy. Furthermore, the success of military operations was measured in terms of statistics that were often flawed in their assumptions and in their collection. The 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 using one fixed approach as the best means of problem solving.[15] An example of irrelevant and arbitrary success indicators of statistically driven strategy in the war was the experiences of Captain Larry A. Thorne, commanding the US Army Special Forces camp at Tinh Bien. Through a successful pacification efforts based on Thorne's extensive war experience and intuitive knowledge the Viet Cong activity in the area was reduced and hence the number of Viet Cong killed in battle dropped. However, the drop in the Viet Cong body count was viewed by Military Assistance Command Vietnam staff officers in Saigon as negative sign of inefficiency rather than a successful pacification effort.[16]

Sam C. Sarkesian, a professor of political science at Loyala University of Chicago, summed up the failure of social science as a basis of American strategy in the Vietnam War:

> Unconventional conflicts in particular, raise serious questions about the utility of social science research and the American Military. The characteristics of such conflicts are as the term denotes, unconventional. And as Vietnam demonstrated, all of the conventional wisdom, social science empiricism, and military technology not come to grips with the essence of battlefield behaviour or in shaping the outcome of the war.[17]

The outcome of the war lead to soul-searching in the US armed forces which breathed new life into historical studies in military education during the renaissance in American military thinking that took place in the late 1970s and early 1980s.[18] Colonel John R. Boyd (1927–1997) of the US Air Force was key figure in this movement. Colonel Boyd is best known for the Boyd Cycle, or the Observe Orient Decide Act (OODA) Cycle, which came out in his study of aerial combat between F–86 Sabres and MiG–15s over northwest Korea during the Korean War. The MiG–15s could climb and accelerate faster and had a better sustained turn rate. However, the F–86s had a bubble canopy which gave its pilot good outward vision as

compared to MiG–15, which had a faired canopy that made it difficult for the pilot to see out. The F–86 had the additional advantage of hydraulic controls, which allowed it to transition between manoeuvres more quickly than the MiG-15. Colonel Boyd found the F–86 pilots were able to present their Communist adversaries with fast and unexpected moves that they could not react to in a timely manner. Often the MiG–15 pilot realized what was happening to him and panicked, and this made the American pilot's job all the easier. From these conclusions he made an extensive study of military history to see if the time-competitive, observation-orientation-decision-action could be generally applied to conflict.

Boyd noted that in battles, campaigns and wars such as the Battle of Luectra (371 BC), the campaign at Vicksburg (1863), and the campaign in France (1940), his conclusions about the observation-orientation-decision-action could be applied. Boyd developed a general theory of warfare which was contained in a briefing known as the *Patterns of Conflict*, which took Boyd over five hours to present. The Patterns of Conflict was briefed to many senior ranking military officers and civilian leaders in the Pentagon. Colonel Boyd's ideas would serve as the basis of the manoeuvre warfare concept of the US Marine Corps. More than the other American armed services the Marine Corps' experience on the battlefields of Vietnam led a number of junior grade Marine officers to come to a conclusion that the American way of techno – centric, attrition warfare was not a successful means of war fighting.[19] Colonel Boyd had a scientific background, studying industrial engineering at the Georgia Institute of Technology and he was an autodidact with knowledge in a multitude of fields. Well versed in scientific method he challenged doctrinal ideas based on pseudo–science concepts. For example, on the supposed scientific principles of war, Colonel Boyd had the following to say:

> Scientific laws and principles are the same for all countries and tend to change little over time. On the other hand, we note that the principles of war are different for different countries and change more dramatically over time. Furthermore, they do not make evident the importance of variety/rapidity/harmony/ initiative as basis to shape and adapt to circumstances — a necessary requirement for success in the uncertain and ever-changing environment of conflict or war.[20]

Colonel Boyd's often radical ideas were not accepted immediately at higher ranks or with the vast military bureaucracy with its vested interest in complacency. But Boyd was embraced by a growing number of junior and mid- grade officers who became the "Young Turks" of a military reform movement in the nineteen eighties. While he held most sway with Marine officers, Colonel Boyd had protégés in the US Army as well to include officers such as Army Lieutenant Colonel Huba Wass de Czege who was instrumental in founding of the School of Advanced Military Studies (SAMS) at Fort Leavenworth, Kansas. SAMS is an elite one year program focused on military history and military theory with the goal of developing superior operational planners.[21] The "Young Turks" put emphasis on the art of war while often being critical of the ideas of those who had rose prominence when the social sciences and scientific management ruled supreme over the American military establishment in the 1960s. The domestic political and social turmoil of the Vietnam War era, however, energized a new challenge to the place of history in military education as civilian academics under the sway of the "Frankfurt School" sought to impose political correctness on the professional military education system.

Political Correctness

Many civilian academics see the military as a subculture with socially unacceptable values, and the study of military history serves as a tool to reinforce the values of this subculture. The study of history has been wrongly characterized by the supporters of political correctness as a means of awakening patriotism and loyalty to organization. Hence, military history is best removed from curricula. Indeed, just as in civilian universities, the military educational institutions have been also been under pressure to have politically correct curricula. Political correctness has its roots in the ideas of a group of German Marxists in the 1920s who founded the Institute of Social Research later known as the Frankfurt School. The Frankfurt School gained profound influence in American universities after many of its leading figures fled to the United States in the 1930s to escape National Socialism in Germany.[22] As the influence of the Frankfurt School rose in 1970s and 1980s, the teaching of military history became increasingly under attack and entire discipline of history itself was in danger of being warped by an authoritarian approach which sanctioned only the "correct" view of civilization past, present and future. The teaching and research in military history, particularly in civilian universities,

suffered as university history departments focused on politically correct topics such as oppressed minorities, John A. Lynn, a professor of military history at the University of Illinois at Urbana-Champaign described the situation in American universities in the mid 1990s:

> There seems to be a desire to restrict history departments to a narrow spectrum. While there is nothing intrinsically wrong with the study of race, ethnicity, gender, or labour all offer important insights. I mourn the loss of diversity. It is infuriating to witness the current lack of concern with preserving variety, breadth, and balance.[23]

The implications are quite serious because the active duty military officers and civilians who teach history at military academies and staff in war colleges depend on civilian institutions to provide an education for their faculty members as well as support for advanced research. Fortunately, the trend against military history that is widespread in American universities seems to be reversing somewhat as political correctness has become increasingly discredited. With America in two protracted wars since 11 September 2001, many have reached the realization that war and military affairs are subjects that deserve an objective and critical examination. Wayne Lee, an associate professor of history at the University of North Carolina-Chapel Hill noted:

> It is up to us to teach people good history whether students are voters in an upcoming election, or ROTC [Reserve Officer Training Corps] members who will be serving abroad in a few years. This is something that history departments should offer as part of a liberal arts education. The better educated we are historically the less likely we are as a country to make stupid mistakes.[24]

Many of the social sciences have been similarly affected by politically correct notions, if not as much as the discipline of history. Western European academia has largely paralleled the trends of political correctness of the United States, and sometimes taken these trends to even greater extremes. In 2003, Stephen Goldberg, a sociology professor at the City University of New York lamented,

> It would be difficult to exaggerate the deterioration by the social sciences, especially sociology and anthropology over the past forty years…the disciplines today are so larded with tendentious ideological beliefs assumed as facts that is it is fair to say that large numbers of students are getting "educations" they are better off without[25]

In Eastern Europe, although they have politically rejected Marxist ways, it is still the case that the educational systems still feels the hangover from the Soviet Empire. As all disciplines of study under the Communists had to be "scientifically" based, there still remains a bias toward the theoretical and disciplines that purport to be "scientific" in their basis. The Soviet ideological concepts were the basis of academic disciplines of the higher learning institutions of Cold War era Eastern Europe and the former Soviet Union. The Soviet ideology rejected many aspects of the Western social sciences and the Soviets developed their own pseudo–scientific fields that covered not only the scope of the social sciences, history, and philosophy, but all other branches of knowledge, art, and of literature. All the academic fields were tightly regimented under central state control.[26] All non–technical academic fields were contained under rubric of "scientific socialism." As a tool of ideological persuasion, Marxism-Leninism was repeatedly characterized as "scientific," despite being based on the concepts of Nineteenth Century philosophers. The fetish-like obsession with defining all academic fields as "scientific" had the purpose of giving weight to the inevitability to any Marxist – Leninist prediction. As a tool of persuasion, it gave Marxism-Leninism equal status with the intellectually pure and quantifiable theories of hard sciences. In sum, it was a way of perpetuating the central mythology of the Communist system.[27]

Within this realm of pseudo–scientific fields the Soviets created military science, where graduate degrees up to the level of doctorates were awarded to Soviet officers. Soviet military science rejected that premise that war consisted of series of events whose outcome could not be readily predicted according to set 'scientific' principles. Accordingly, the Soviets believed that there were immutable laws or principles of war that could be discovered through research within a Marxist-Leninist framework. The Soviet satellite states and other communist countries developed military science on the Soviet model. Indeed, Finland is the only country never under Communist rule where military science has been recognized as an

academic discipline. However, unlike the Communist countries, scientific socialism was not the basis for Finnish military science, nor have the Finns accepted the deterministic model or mindset that was the characteristic of the Soviet concept of military science.[28]

In many former Communist countries, including those who that are now NATO members, the mindset and approach to education in civilian institutions of higher learning and within the armed forces are slow to change. The bureaucratic, academic, political and media elites are intertwined through formal and informal networks of the former Communist party members. These networks often constrain academic and media discussion on reform within the military or academic institutions. Many Soviet-era academics work as civil servants or government advisers and remain as guardians of the old mindset. While most are loyal and patriotic citizens, they still tend to protect the interests of their cohorts and their ideas about educational methods remain firmly rooted in the past.[29]

Interestingly, officer education in Estonia faced similar problems in the early 1920s. In newly independent Estonia officer education and training was initially organized very much on Russian model because in Estonia there were many former Russian senior officers, as well as professors and specialists who had fled Bolshevik Russia and were readily employed by the Estonian armed forces. One of the better known instructors was former Russian general and Professor Aleksei Baiov, who had taught St. Petersburg Nikolai Staff Academy before the Bolshevik revolution. However, the Estonian General Staff quickly came to the conclusion that the Russian approach to officer training and education was outdated and irrelevant to Estonia's situation because it was too theoretical in nature and depended on and endless array of theoretical lectures, the repetition of topics, and continuous rote examinations.

The Estonian Chief of Staff Major General Nikolai Reek (1890–1942) initiated a thorough reorganization of Estonian officer education. Major General Reek had extensive and varied experiences as a staff officer in the Tsarist Army and with the Estonian Army during the Estonian War of Independence. He was familiar with German, British, American and French officer education methods and he was the first Estonian officer to attend France's *École Supérieure de Guerre*. Under Reek many of the Russian instructors were replaced by younger Estonian officers and the military

education now emphasized practical exercises, case studies, and independent student research work. It is interesting that after the revolution the Soviet Union's approach to officer education did not change dramatically from that of Tsarist Russia, and this rigid and highly theoretical approach was later installed into other Communist states.[30]

Flushing out the holdover concepts of the Communist era and avoiding new and baneful trends, such as the political correctness that afflicts higher education in the Western nations, are a two pronged challenge facing the development of professional military education in the Eastern European nations today

Warnings from Popper, von Mises and Beard

In many ways the rise of political correctness is particular in the social sciences, is a natural extension of problems which Sir Karl Popper (1902–1994) of the London School of Economics saw in developing in these disciplines beginning in the 1930s and 1940s. Popper believed the social sciences were both theoretically misconceived and socially dangerous as they were then constructed. The principal task of the social sciences, according to the followers of these disciplines, was to make predictions about the social and political development of man. The task of political policy based on these predictions was to hasten and smooth the way for future social and political developments. However, Popper held the view that history did not evolve in accordance with intrinsic laws or principles, and the absence of such laws and principles made most predictions in the social sciences arena impossible. Hence grand plans based on a rigid deterministic outlook of the social sciences were inherently misconceived and inevitably disastrous. Furthermore, a deterministic approach towards the future and adopted as official government policy would lead inevitably to authoritarianism and totalitarianism according to Popper and other critics of the social science approach. Indeed, a deterministic outlook on history is something that nearly all undemocratic societies have shared.[31]

In arguments similar to Popper's observations, the classical liberal Austrian economist Ludwig Von Mises (1881–1973) clearly saw the totalitarianism of Nazi Germany as having much of their origin based on the deterministic outlook common to the social sciences in the universities of Weimar Germany,

> The social scientists did not follow the example of the professors of theology who acquainted their students with the tenets and dogmas of other churches and sects and with the philosophy of atheism because they were eager to refute the creeds they deemed heretical…. The graduates left the universities convinced advocates of totalitarianism either of the Nazi variety or of the Marxian brand.[32]

Charles A. Beard (1874–1948), who is one of the foremost American historians of the twentieth century and the virtual founder of field of political science in the United States, also recognized the deterministic traits in the social sciences as seen by Von Mises and Popper. Writing in on the limitations of the social sciences in May 1933 Beard stated,

> The trouble lies…in the assumption that it can do what theology failed to do, namely, develop a complete social philosophy satisfactory to the human spirit. It assumes the deterministic character of society, rules out morals, purposes, aspirations, wills, aesthetics…[33]

As the numerous pseudo–scientific academic schools of thought rose up in the latter part of the nineteenth century and in the opening years of the twentieth century there was also an effort to develop a historical "science" whereby a historian, according to Beard, would describe the past "as the engineer describes a single machine." This was not universally embraced and by the early nineteen thirties for most historians in democratic nations it was an approach increasingly in disrepute.[34]

Both Beard and Popper saw the danger of reductionism in the social sciences in the attempt to explain complex phenomena by reducing them to the interactions between standard parts. For them the inability to grasp all of the complexities of the human condition led to a closed discipline that could not cope with new, but relevant, information that did not fit into the rigidly deterministic schemes.[35]

Argument of Relevance

One of the arguments of some representatives of political and behavioural sciences in the competition for curriculum space in military educational programs is that of timeliness and relevance. They point out that their fields focus on contemporary issues and are useful in forecasting future events. However, as Antulio J. Echevaria, Director of Research for the US Army War College, argues that the greater the current relevance of any particular knowledge, "the shorter the shelf life."[36] One can note from recent history that a dramatic shift of strategic focus, such as the 11 September 2001 attacks and the response of Operation Enduring Freedom, can happen in the middle of an education program and quickly render the most current topics in a course irrelevant.

The US Joint Forces Command (US JFCOM) was fully cognizant of such relevance problems when it issued the authoritative study the *Joint Operating Environment 2010* whose purpose was to provide a perspective on future trends, shocks, contexts, and implications for future joint force commanders and other national and allied leaders. The study took the speculative approach of the discipline of history, rather than attempting to make deterministic predictions on the next twenty-five years as some previous Defence Department studies had done. According to the *Joint Operating Environment 2010*

> As war at its essence is a human endeavour, then it follows that one of the most effective ways to understand human nature is by a close consideration of history. As such, rather than futuristic vignettes, the *Joint Operating Environment* uses history as a principal way to gain insight into the future[37]

As with this study, profession military education should be focused on gaining insight on broad issues and trends and the enduring nature of war, as well as developing intellectual abilities to confront the challenges of unexpected strategic and operational changes and the ability to effectively interact with differing cultures.[38] Learning activities should focus on the long term and emphasize the long term relevance throughout the career of an officer.

An Argument for the Case Method

In many ways the study of military history through use of the case method can provide broad perspective and with enduring value in military education. Furthermore, the case method has proven to be a highly effective way mode of learning in professional education. According to Bruce I. Gudmundsson, who specializes in developing case studies for various courses in US Marine Corps University, "The human mind is not designed to learn from lists of characteristics, traits, and attributes. Rather, it was designed to learn from experience."[39] Gudmundsson points out that the case study provides condensed experience and thus is a more effective way of learning than classroom lectures on theories and principles.[40]

In civilian graduate education, the case method has been extensively used in business programs. Its origins in university education date to 1870 when it was instituted in the Harvard Law School largely through the efforts of law professor Christopher Columbus Langdell (1826–1906). Harvard Business School, founded in 1908, would follow the Law School's lead and institute use of the case study in 1920.[41] As according to Harvard Business Professor Charles I. Gragg, there was an early realization that business management was not a technical matter, but a human matter that depended on how people (producers, bankers, sellers, consumers, etc.) responded to specific business actions and that there was often, "no single, demonstrably right answer to a business problem."[42] Case studies attempted to simulate the conditions under which business decisions were made, and had the intent of taking students out of the role of "passive absorbers" in the learning process and making them active participants.[43] The Harvard Business School case studies would largely become the model and standard for graduate business programs throughout America and the world. In the military education environment a similar movement took place largely concurrently with the development of various forms of the applicatory method or applicatory system.[44]

Under the leadership of Admiral Alfred Thayler Mahan (1840–1914), president of the US Naval War College in the late 19th Century, a leading feature instruction was the applicatory system which was based on the experiences of historical military events. Through case studies based on historical events, the applicatory system attempted to put students under the conditions where military decisions have to be reached in actual war.[45]

Admiral Mahan was one of the most prolific writers on naval affairs in modern times and is often misunderstood by interpreters. Most of his works on naval strategy are case studies written for the purpose of officer education. Unfortunately, many interpreters and critics took his works prescriptively.[46] Mahan clearly saw the human dimension of command, and he dealt with complexity and the growing bias toward a scientific approach. Admiral Mahan wrote in 1888,

> Have we not ourselves much to blame for it in this exclusive devotion to the mechanical matters? Do we not hear, within and without, the scornful cry of disparagement that everything is done by machinery in these days, and that we are waxing old and decaying, ready to vanish away? Everything done by machinery! As if the subtlest and most comprehensive mind that ever wrought on this planet could devise a machine to meet the innumerable incidents of sea and naval war.[47]

In a manner similar to the naval War College, the US Army advanced schools at Ft. Leavenworth instituted the applicatory method. A leading figure in this effort was US Army Captain Arthur L. Conger (1872–1951), who taught history at the General Staff School from 1907 to 1910 and again from 1913 to 1916. Captain Conger would immerse students in the details of a campaign by providing the original documents such as operational orders. With such key information the student would analyze the situation and vicariously experience the process of decision making in warfare. Having students put information from documentary sources together to a get a clear picture of the situation simulated the process of the commanders' making decisions amidst the fog of war.[48]

General staff education in the United States and other countries was greatly influenced by German practices. Similar practices to Captain Conger's methods had developed earlier in Prussia. Before the German wars of unification, the Prussian Chief of Staff, General Helmuth Von Moltke (1800–1891) believed that, in time of peace, the lack of operational experience could only be made up by historical study and learning from the experience of others. When Moltke became head of the General Staff in the 1860s Prussia had not fought a war since 1815. Thus, the 1859 war between France and Piedmont –Sardinia and Austria provided students in the *Kriegsakademie* their most contemporary case study before German

Wars of Unification. Under von Moltke, the study of military history was not the mere recounting of campaigns and battles; he demanded that students undertake the staff work of the opposing armies so that its effects on the outcome of the campaign could be evaluated.[49] Marshal Ferdinand Foch (1851–1929) urged the French staff college to develop similar methods that were modelled in Prussia under von Moltke. Foch wanted to develop the qualities of the mind and character of officers through the applicatory study of military history and believed that the, "study of history along these lines will be for us not only a means of learning but also a road to discovery."[50]

Despite America's pioneering efforts to use history through the case or applicatory method, by the late nineteen fifties the study of military history was marginalized in American military education. It was through the military reform movement and the rise of diverse and complex military operational problems in the post Cold War era that military educational institutions the United States and other Western armed forces became interested in the business school style case studies and renewed their interest in the applicatory method.[51] The Israeli Defence Forces (IDF) used similar historical case methods through in their officer education through the nineteen eighties, but dropped them largely to move towards a more theoretical social science approach. However, several analyses of leadership failures in 2006 conflict in Lebanon pointed to weaknesses in officer education where students were "not taught the right things." Indeed, the historical studies that had previously been in the curriculum were seen to have enduring value.[52]

The strength of the historical case method is that it develops the students' ability to assess complex problems from different points of view through tangible examples. It develops broader thinking among students and provides them with new insights into how to deal with the untidy uncertainties of the real world. Perhaps different from past use of military history, contemporary historical case studies in places such as the US Marine Corps University examine complex situations where multiple belligerents or uncommitted actors are involved rather than the "red forces versus blue forces" approach common to traditional staff rides. In today's complex operating environment the red forces versus blue forces approach harkens to the caricature of a would-be famous military author, Cadet Biegler, in Yaroslav Hassek's *Good Soldier Schweik*. Biegler produced endless

descriptions of battles all of which were exactly alike, all fought by armies having a centre and two flanks.[53] Furthermore, in case studies the broader social and political context is examined rather than attempting to understand military operations in isolation. Developing a feel for military operations in a complex and constantly changing environment is, of course, the goal.

The Goddess History sometimes plays pranks on us — the case studies based on recent and great events are sometimes less relevant to contemporary times than limited events of long ago. William S. Lind, who served as an instructor at the Marine Corps University, relates that it comes as a surprise to young Marine officers that when they ask what is the best book to read on subject of amphibious operations, "I suggest Sir Julian Corbett's two-volume work *England in the Seven Years War* – a book published in 1907 that concerns a war fought between 1756 and 1763."[54] Corbett writings on Seven Year War examine limited war, expeditionary war, and the interplay between maritime operations and land warfare as well as military operations in the general context of national strategy. Sir Julian Corbett (1854–1922) was an instructor at the Royal Naval College at Greenwich, and thus generally wrote histories relevant to his teaching efforts. Much of his writings were focused on expeditionary campaigns and use of naval power in limited wars.[55]

Limited wars of the past provide many parallels to current day military operations. In most cases, the Second World War battles and campaigns are less relevant to current times than studying campaigns with limited goals and forces, such as the military operations in the Baltic region during the 1918-1920 period. While a World War II case might have utility focusing on aspects of military planning and joint operations, the broader social, legal and political context of these military operations are largely irrelevant to contemporary times. The Second World War consisted of two huge coalitions of with totalitarian states on both sides, engaging in total war, and often with total disregard for the contemporary concepts of international humanitarian law. The nuances of limited wars fought by small alliances for limited objectives is lost in the context of World War II — but can resonate in today's environment of limited conflicts.

In the Baltic situation 1918–1920, one can examine an Allied expeditionary force, mainly the British Baltic Squadron under Admiral Sir Walter Cowan,

engaged in a stability and humanitarian assistance mission. The British squadron assisted smaller (Estonians and Latvians) coalition partners in joint combined military operations against Bolshevik Russia, a rogue state with an extremist ideology. During the 1918–1920 one finds complexity and multiple actors, not different from what would be found in allied contemporary expeditionary situations for stability operations or peacekeeping. The Baltic nations were fighting the Bolsheviks, and sometimes the Germans, to maintain their independence. German forces under rogue officers were attempting to re-establish German power in the region and sometimes fought actively with Baltic nationalist forces while feigning compliance with the directives of the Entente powers. The Entente powers supported anti–Bolshevik white Russian forces and pressured Finns, Estonians, and Latvians to cooperate with them even though the small powers did not trust White Russians who called for a restoration of the Russian Empire. The Poles fought the Bolsheviks while trying to expand their influence in the Baltic region largely at expense of Lithuania. The Finns wanted to see friendly countries on the other side of the Gulf of Finland and supported the Estonians and Latvians, but astutely avoiding Allied attempts to draw them into an operation to capture Petrograd.

The Entente powers, while all supporting anti–Bolshevik efforts had their divergences in political policy towards the Baltic countries. The British were perhaps most politically supportive of the Baltic countries. The French government worried that the breakup of the Russian Empire would mean Russia's default on the huge debts owed to the French government while the banks favoured the idea of autonomous Baltic States as part of a non–Bolshevik Russian federation. France supported Poland because it served as an eastern bulwark against Germany. On one hand, the United States could not deny the aspirations for self determination of the Baltic peoples. On the other hand, there was a strong White Russian lobby that exerted influence on the American Congress and affected American policy in the Baltic. While the British naval and air forces actively supported Estonian and Latvian military operations, the American involvement in the Baltic area was carried out mainly through a civilian agency, the American Relief Administration, which worked closely with Baltic governments and the Allied military representatives to provide humanitarian assistance.

Perhaps the best starting point for preparing case studies on the Baltic during this period are the works of Geoffrey Bennett and Edgar Anderson.[56] Major General Reek also provides a some useful material from the 1918–1920 period. With his broad knowledge of military affairs Reek had the ability to write case studies on military operations that were useful for military education. He had the ability --unique even in our time — to write objectively about operations where he was a central figure. He approaches events in an even handed and analytical manner and looks at the enemy perspective, while avoiding the appearance of a memoir. Reek took note of the moral and mental aspects of battle, rather than focusing on the material side.[57] In short, he provides a good model for a careful and objective observer.

While some aspects of military history are certainly more relevant than others in relating to our own times, military professionals, especially those serving as instructors in military educational institutions, still need a broad knowledge of the history of warfare. According to Colonel Michael Duncan Wyly of the US Marine Corps,

> The study of history of becomes important to everyone who would presume to teach warfare. One war is insufficient. He needs to know the degree to which wars have differed and they how have differed, because the war he is preparing his students for is likely to be vastly different than the last one. How else to know that except to study a whole range of wars and how they have differed.[58]

Cautions about using or abusing military history in professional military education have been around for awhile, with the most notable commentator being the eminent scholar of military affairs Sir Michael Howard. The greatest abuse of military history lies in cherry picking facts and presenting a biased interpretation of events to further the national patriotic myth or maintain institutional prestige.[59] The "politically correct" version of history is based again on selective and biased interpretation of events is a similar danger. The value of case studies is lost in myth-making, as there is as much to be learned from what wrong as from what went right.

According to Rear Admiral Samuel Elliot Morison (1887–1976) who directed the US Navy's official history of the Second World War, a critical approach was often painful and difficult. This truly describes the 400 pages of studies prepared by Naval College War under the direction of Commodore Richard W. Bates on the American naval disaster at Savo Island in 1942 where the US lost four heavy cruisers in forty-two minutes to a smaller Japanese naval force. In honestly trying to find out what happened and why, the naval historians' work spared no senior officers from criticism and praised few. Their findings shocked the naval leadership "to the core" as it revealed unbelievably faulty naval tactics.

Despite the displeasure of the naval leadership, knowing the flaws in tactics and command helped the Navy to avoid such disasters in the future. According to Admiral Morison, the work on the Battle of Savo Island, "is a fine example of intellectual honesty, because it was driven by an earnest desire to explain the event as it actually happened."[60] Along this vein, the history might not be able to determine a course for future action, but it can often show what led to failures in the past. As the British military writer Captain Basil H. Liddell Hart (1895-1970) noted,

> The object might be more cautiously expressed thus: to find out what happened while trying to find out why it happened. In other words, to seek the causal relations between events. History has limitations as *guiding* signpost, however, for although it can show us the right direction, it does not give detailed information about the road conditions. But its negative value as a *warning* sign is more definite. History can show us what to *avoid*, even if it does not teach us what to do—by showing the most common mistakes that mankind is apt to make and to repeat[61]

As noted, many times what actually happened has been obscured by national or institutional myth-making, or to preserve the prestige of a bureaucracy. Von Moltke, under whose supervision, the German General Staff produced an official history of the Franco–Prussian War, gave the following advice on that work:

> We must be able to read between the lines. The History produced by our General Staff is the best that has been written of the last war. It is valuable for all to study and requires to be read between the lines, seeing that criticism of persons are always expressed in it

> with finest tact, which the historical truth, as far as it can be ascertained, is always there.[62]

Reading between the lines is still necessary when dealing with official histories or contemporary historical works of university academics who have the political correctness sword of Damocles hanging over them. In some cases truth has been obscured by historians who use poor methodology and engage in myth-making under the motivation of mass popularity and quick profit. The late American historian Stephen Ambrose was one of the most notorious in this regard, rapidly producing books, mainly on World War II, for the bestseller market while plagiarizing, embellishing events, and fabricating source material along the way.[63] Of course, original documents and accounts are best for getting at the truth, but these also must be examined in depth and with a critical eye.

Examining original documents and accounts of events in depth is essential to developing good case studies. The strength of history is that strives for free inquiry of what happened in the past and from this study one can draw conclusions about broad patterns of events, and what has changed and what has stayed the same. In regard to the lessons of history, Howard cautions,

> the statesman, the soldier has to steer between the danger of repeating the errors of the past because he is ignorant that they have been made, and the danger of remaining bound by the theories deduced from past although changes in conditions have rendered these theories obsolete[64]

No competent historian has the expectation that historical events studied will somehow be repeated. However, there are many situations with close parallels to past events. Even then the many variables, including technology, will be different and outcomes are never perfectly predicable. What is gained from historical case studies in professional military education is not a formula for success but an understanding of the interaction of many variables effecting military operations and appreciation of which variables weigh more under different circumstances.

Clearly broad knowledge of military history is a part of the currency of a military officer developing and placing into context professional concept.

Nearly all types of professional endeavours requiring higher education have an equivalent historical foundation.[65] As according to Colonel Wyly,

> any professional, art, or science studies its history…We do not learn physics without an awareness of Newton, Faraday, and Einstein. The psychologist needs to know who Freud and Jung were and what they though and did. A lawyer studies his profession largely through the precedents of the past...[The Military instructor] should use historical case studies in much the same way that business case studies are used in the Harvard School of Business[66]

As in advanced education in other professional fields which use the case method, the best instructors in military education are whose coming from the world of practice with sound academic preparation. Practitioners are preferable to those coming purely from academia (civilian or military). As active practitioners, they are able to understand the relevance of what they teach to the contemporary condition and relate it to students in an authoritative way. Officers should be those with recent operational experience and on an upward career path. Since the 1980s there has been a trend towards the civilianization of faculty at staff and war colleges in various NATO countries. Martin Van Martin wrote in 1990, that "The present system, whereby subjects as military history, art and theory are often taught by young PhDs with dubious qualifications is harmful and should be abolished."[67]

Civilianization has gone another direction since 1990s. In the US military education system teaching assignments have been seen as "career killers." For upwardly mobile officers assignments in the Pentagon are far more helpful to one's career. Institutions such as the US Army Command and General Staff Course (CGSC) increasingly rely on retired officers with advanced degrees. As a result, by 2009 nearly four out of five members of the US Army CGSC faculty consisted of retired military officers hired on contract. According to an article by Major General Neil Smith in the February 2010 *United States Naval Institute Proceedings,* many of these instructors retired before the current conflicts in Iraq and Afghanistan and could not reinforce the classroom learning with current operational experience or help shape curricula to meet present demands. Some of them considered themselves stalwart guardians of a conventional mindset,

resisting change to address low-intensity threats.[68] What may change this situation in the US military are some upwardly mobile officers who understand the value of military history and have studied the art of war and at some time in their careers while ignoring the warnings of personnel officers not to accept teaching assignments.[69]

Conclusions

The use of military history through case studies can be an effective method for preparing military officers for the complexities of the present and future operating environment that presents a picture of an uncertain and increasingly complex future. The use of historical case studies helps an individual to develop an understanding of how to think rather than what to think. Clearly there should be a strong place for such studies in the curriculum of professional military education programs. The question remains for the curriculum developers in various institutions as to how they can best employ historical case studies in conjunction with other disciplines and teaching methods.

As with any discipline, history and the use of the case method has its cautions and limitations. But the disciplines with which history competes in professional military education, and I am talking about the social sciences here, often have even greater limitations and require even greater caution if they are to make a positive contribution.

---

[1] Antulio J. Echevarria, "The Trouble with History," *Parameters of the Army War College*. (Summer 2005), 78.

[2] Charles A. Beard, "Limitations to the Application of Social Science Implied in Recent Social Trends," *Social Forces* (May 1933) 506.

[3] 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, Donald E. Vandergriff, "The Specter of Taylorism," *Defence and the National Interest*. 'http://www.defence-and-society.org/vandergriff/specter_of_taylorism.htm' (9 November 2007), Donald Vandergriff *The Path to Victory: America's Army and the Revolution in Human Affairs*. (Novato, CA: Presidio Press 2002), pp. 41 – 44.

[4] 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) 140-41.

[5] Johnston, "A Science of War," 89.

[6] Martin van Crevald. *Fighting Power German and US Army Performance, 1939 – 1945*. (Westport CT: Greenwood Press, 1982) 35 – 38.

[7] William J. Cunningham, "Scientific Management in the Operation of Railroads," *The Quarterly Journal of Economics.* (May 1911), 549 – 551, Albro Martin. *Enterprise Denied: Origins of the Delcine of the American Railroads, 1897- 1917.* (New York: Columbia University Press. 1971), 211 – 219.

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

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

[10] Vandergriff *The Path to Victory: America's Army and the Revolution in Human Affairs.*, p. 73.

[11] Bernard Brodie, "Strategy as a Science," *World Politics* (July 1949), 467-488, Bernard Brodie, "Scientific Progress and Political Science," *The Scientific Monthly* (December 1957), 315-319, Colin S. Gray, "What Rand Hath Wrought," *Foreign Policy* (Autumn 1971) 111-129.

[12] James Lawton Collins, Jr. *The Development and Training of the South Vietnamese Army, 1950 – 1972.* (Washington DC: Department of the Army, 1991) 79.

[13] Martin Van Crevald. *The Training of Officers: From Military Professionalism to Irrelevance.* (New York: The Free Press, 1990) 73 – 76.

[14] Ibid., 75.

[15] Gray, "What Rand Hath Wrought," 111, Victor A. Thompson, "How Scientific Management Thwarts Innovation," *Society* (June 1968) 126 – 128.

[16] H.A. Gill III *Soldier Under Three Flags: The Exploits of Special Forces Captain Larry A. Thorne.* (Ventura CA: Pathfinder Press. 1998) 157.

[17] Sam C. Sarkesian, "The Sorcerer's Apprentice: Social Science and the American Military," in Stephen D. Chiabotti (ed) *Tooling for War: Military Transformation in the Industrial Age.* (Chicago: Imprint Publications, 1996) p. 240.

[18] 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) 16.

[19] Jeffrey Cowan, "Warfighting Brought *to* You by..." *US Naval Institute Proceedings.* (November 2001), 61; Grant R. Hammond. *The Mind of War: John Boyd and American Security.* (Washington DC: Smithsonian Books, 2001), 120 – 124, William S. Lind *Maneuver Warfare Handbook.* (Boulder CO: Westview Press, 1985) 5.

[20] John R. Boyd (Chet Richards & Chuck Spinney eds) "Patterns of Conflict" (Defence & the National Interest. January 2007) slide 182

[21] Cowan, "Warfighting Brought to You by...,"61.

[22] "Is Multiculturalism a Threat to the National Security of the United States?" *Insight.* (31 December 2001), 42, William S. Lind, What is "Political Correctness"? http://www.freecongress.org/centers/cc/pcessay1-3.aspx (accessed 1 September 2009), William S. Lind, "The Roots of Political Correctness," *The American Conservative.* (19 November 2009)

http://www.amconmag.com/blog/2009/11/19/the-roots-of-political-correctness/ (accessed 18 November 2010).

[23] John A. Lynn, "The Embattled Future of Military History," *The Journal of Military History.* (October 1997) 781.

[24] Justin Ewers, "Why Don't More Colleges Teach Military History? Despite its enduring public appeal, and a country at war, the subject gets little respect on campus," *US News and World Report.* (3 April 2008) http://www.usnews.com/articles/news/2008/04/03/why-dont-colleges-teach-military-history.html?PageNr=1 (accessed 4 April 2008).

[25] Stephen Goldberg. *Fads and Fallacies in the Social Sciences.* (Amherst NY: Humanity Books. 2003), 15

[26] Ludwig von Mises. *Bureaucracy.* (New Haven CT: Yale University Press, 1944) 87.

[27] Carol Barner – Barry & Cythnia Hody, "Soviet Marxism – Leninism as Mythology," *Political Psychology* (December 1994) 620.

[28] Matti Lappalainen, "On Military Science in Finland," Military Affairs (April 1983) 73 – 77; Condoleezza Rice, "The Party, the Military, and Decision Authority in the Soviet Union," *World Politics*. (October 1987) 61; Martin Van Crevald. *The Training of Officers: From Military Professionalism to Irrelevance*., 92 – 93.

[29] "Lithuania/Estonia: Lithuania needs Political Clean up and Clear Out," *Oxford Analytica Daily Brief Service* (04 December 2009) 1.

[30] Andres Seene, "General-Lieutenant Nikolai Reek (1890–1942) – Estonian officer and leading military theorist," (Tartu: Estonian National Defence College Unpublished Manuscript, 2008) 5 -6.

[31] Karl Popper, "Poverty of Historicism I," *Economica*. (May 1944), 86 – 103, Karl Popper, "Poverty of Historicism II: A Criticism of Historicist Methods," *Economica*. (August 1944), 119 – 137, Karl Popper, "Poverty of Historicism III," *Economica*. (May 1945), 69 – 89; "Karl Popper," *Stanford Encyclopedia of Philosophy*. http://plato.stanford.edu/entries/popper/ (accessed 1 September 2009)

[32] von Mises. *Bureaucracy*., 86.

[33] Beard, "Limitations to the Application of Social Science Implied in Recent Social Trends," 506.

[34] Charles A. Beard, "Written History as an Act of Faith," *The American Historian Review*. (January 1934) 220 – 221.

[35] Beard, "Written History as an Act of Faith," 220 – 223, Beard, "Limitations to the Application of Social Science Implied in Recent Social Trends," 506; Popper, "Poverty of Historicism III, 75 – 78.

[36] Echevarria, "The Trouble with History," 78.

[37] *Joint Operating Environment 2010* (Norfolk VA: US Joint Forces Command, 2010, 5.

[38] Ibid., 69.

[39] Bruce I. Gudmundsson, "Instruction at the Basic School," *Marine Corps Gazette*. (February 1984) 29.

[40] Ibid.

[41] David A. Garvin, "Making the Case: Professional education for the world of practice," *Harvard Magazine* (September – October 2003) 56 – 58.

[42] Charles I. Gragg, "Because Wisdom Can't Be Told," *Harvard Alumni Bulletin* (19 October 1940) reprinted 30 November, 1982.

[43] Ibid.

[44] Timothy K. Nenninger. *The Leavenworth Schools and the Old Army Education Professionalism and the Officer Corps of the United States Army 1881 – 1918.* (Westport CT: The Greenwood Press. 1978) 94; Bernard Lentz, "The Applicatory Method," *Infantry Journal.* (June 1922), 604 - 607, A. T. Mahan, "The Naval War College," *The North American Review.* (July 1912) 78 – 79.

[45] Mahan, "The Naval War College," 78 – 79.

[46] Thomas C. Kennedy, "Charles A. Beard and the "Big Navy Boys," *Military Affairs* (Summer 1967), 68

[47] Alfred T. Mahan, "Address of Captain A. T. Mahan, President of U.S. Naval War College," *US Naval Institute Proceedings, (*December 1888) 621.

[48] Nenninger. *The Leavenworth Schools and the Old Army Education Professionalism and the Officer Corps of the United States Army 1881 – 1918.,* 98 – 99.

[49] Jack D. Hoschouer, "Von Moltke and the General Staff," *Military Review.* (March 1987) 66.

[50] Ferdinand Foch (J. de Morinni trans) *The Principles of War.* (New York: H.K. Fly Publishers. 1918) 21.

[51] Paul K.Van Ripper, "The use of military history in the professional education of officers," *Marine Corps Gazette* (February 1994), 48; Michael Duncan Wyly, "Teaching Maneuver Warfare," in Richard D. Hooker (ed) *An Anthology: Maneuver Warfare.* (Novato CA: Presidio Press, 1993) 259.

[52] James W. Rainey & Robert W. Mixon, "Historical Mindedness in the Israeli Defence Forces," *Military Review.* (June 1984), 28 – 32, Leslie Susser, "Closing Ranks: A Series of Critical Reports Points to the Israeli Defence Forces' Failure in the Second Lebanon War, Citing Poor Professional Training, Mistaken Military Philosophy and Misguided Values and Principles," *Jerusalem Report* (8 January 2007) 13.

[53] Martin van Creveld, "Thoughts on Military History," *Journal of Contemporary History* (October 1983), 554.

[54] William S. Lind, "Manoeuvre – Historical Significance: The Influence of History on Sea Power," in Tristan Lovering (ed) *Amphibious Assault: Manouvre from the Sea from Gallipoli to the Gulf - a definitive analysis.* (Woodbridge Suffolk: Seafarer Books, 2005) 1.

[55] John D. Gibson, "Sir Julian Corbett on Amphibious Operations," *Marine Corps Gazette.* (March 1998), 68.

[56] Edgar Anderson, "An Undeclared Naval War: The British – Soviet Naval Struggle in the Baltic, 1918 – 1920," *Journal of Central European Affairs.* (April 1962), 45 – 78; Edgar Anderson, "British Policy Towards the Baltic States," *Journal of Central European Affairs.* (October 1959) 260 – 289.

[57] Useful works: N. Reek, "Lemsalu – Roopa – Võnnu Lahing 19 – 23. VI 1919," [Lemsalu – Roopa – Võnnu Battle 19 – 29 June 1919] *Sõdur* 6/7/8 (1929), 139 – 186, Nikolai Reek. *Saaremaa kaitsmine ja vallutamine a. 1917* [The Defence and Conquest of Saaremaa in 1917] (Tallinn : Tallinna Eesti Kirjastusühisus. 1937) – English translation of this work - Eesti Riigiarhiiv 495-12-762 Lieutenant General Nikolai Reek (Lt. R. J. Kokk trans)*The Defence and Conquest of Saaremaa in 1917*. (Unpublshed Manuscript 1937).

[58] Wyly, "Teaching Maneuver Warfare," 258.

[59] Michael Howard, "The Use and Abuse of Military History," *The Army Doctrine and Training Bulletin.* (Summer 2003), 18 19.

[60] Samuel Elliot Morison, "Faith of a Historian," *The American Historical Review*. (January 1950) 264 – 265.

[61] B.H. Liddell Hart. *We Don't We Learn from History?* (London: Allen & Unwin. 1972) 7.

[62] "War as a Teacher of War," *United Service: a Quarterly Review of Military and Naval* Affairs (June 1902) 607.

[63] "The Ambrose Saga Continues," *The Weekly Standard.* (3 May 2010) 2.

[64] Howard, "The Use and Abuse of Military History," 21.

[65] Van Ripper, "The use of military history in the professional education of officers," 48;

Wyly, "Teaching Maneuver Warfare," 259 – 260.

[66] Ibid, 259

[67] Van Crevald. *The Training of Officers: From Military Professionalism to Irrelevance.*, 107.

[68] Neil Smith**, "**Educating the Army in its Own COIN," *United States Naval Institute Proceedings* (February 2010) 42.

[69] Robert H. Scales, "Too Busy to Learn," *United States Naval Institute Proceedings* (February 2010) 30.

Bandit or Patriot: The Kenyan Shifta War 1963-1968

By Major John Ringquist[*]

> "*To the people who live in the Northeast region, I have this to say, we know that many of you are herdsmen during the day and Shifta at night. Others conceal Shifta and refuse to give information about their movement." – Prime Minister Jomo Kenyatta addressing the Kenyan House of Parliament in 1964.*[1]

The Shifta War, which began in 1963, was deeply rooted in long-standing grievances resulting from British colonial isolation and underdevelopment of ethnic Somali in Kenya. The political impetus for the Shifta War arose from the Somali irredentist drive to unite all five Somali lands into Greater Somalia, and Somali resistance to being governed by a dark-skinned, Bantu people. The Kenyan government in turn resisted Kenyan Somali independence, despite the overwhelming support of the Kenyan Somali for unification with Somalia. The result of these differing goals was the 1963-1967 Shifta War, a war imbedded in the social and historical context of a people resistant to any authority outside their clan groups. The word *Shifta* means bandit; the Kenyan government employed it to indicate their refusal to recognize the Kenyan Somali's grievances. The Somali also utilized it, as the term was historically tied to warlords who resisted colonial authority, romantic "Robin Hood"-like figures who obtained prestige, plunder and respect for their people by force of arms and stratagem.

The Northeast District posed an intractable problem for the Kenyan government, the issue not confined to the independence of one isolated group, but because independence threatened the political and national unity of Kenya, a state that contained over eighty-seven separate ethnic groups. Secession by one group threatened successive efforts in the Lakes Region near Lake Victoria, where Uganda suggested frontier adjustments based on pre-colonial boundaries. An additional threat to Kenyan unity

[*] US Army

was transhumant groups on the Ethiopian and Tanzanian borders, amongst them the cross-border travelling Turkana and Masan peoples respectively. The Shifta threat was therefore an ominous threat to the newly independent Kenya's survival, a legacy of British colonial rule and repeated decisions to defer the issue for later study.[2] By 1963, "later" had arrived, and with independence, Prime Minister Jomo Kenyatta faced a Somali insurgency that drew support from Somalis within Kenya as well as from the Somali government across the border. It was not a new problem, but it was now Kenya's.

Although British colonial rule in Kenya emphasized keeping various ethnic groups apart, British colonial authorities from the start of their administration of the East Africa Protectorate recognized the Somali as a distinct group unlike the rest in Kenya. It was noted that the Somali were a homogeneous people, Muslim by religion and with a warrior culture of proven ability and a history of martial prowess. Sir Charles Eliot, the Commissioner for the East Africa Protectorate in 1904 wrote that, "if it were possible to detach the districts inhabited by the Somalis it would be an excellent thing to form them into a separate government..."[3] British attempts to administer the Northern Frontier District (NFD) began in 1902 with the District Ordnance of 1902 which established frontier posts ostensibly to "stop ever-increasing raids by Abyssinian soldiers and to stop the westward expansion of Somali pastoralists."[4] The British intended the NFD to serve as a buffer between Ethiopia and Italian Somaliland, as well as protect their economic aspirations in the Central Kenyan "White Highlands," and the newly constructed East African Railway.[5] The establishment of the NFD met this need and successfully checked Ethiopian expansion; however, it failed abjectly to control Somali migratory movements or wrest Somali loyalty from their clans and toward the British colonial government.

Somali clan loyalties involve many layers of kinship and social obligation that often subordinate the individual to the clan's interests. Disputes are not merely between individuals but often become clan affairs that may span clan or even state boundaries. Somali clans recognize the kinship-based "*Diya*-paying group" as their central social unit and political unit. Great distances may separate Somali clans and their allies, but when needed, *Diya*-paying groups and clan loyalty transcend geographical barriers to ensure access to pasture and water. If the clan's interests are

threatened, all parts assemble to protect those interests, even if doing so involves warfare between clans and their allies.[6] Such loyalties proved highly problematic for the British since the division of Somali lands created a border that cut through traditional territories. Clans frequently fought cross-border skirmishes.

The Somali clans of the province and their fellow clan members in Ethiopia and Italian Somaliland fought, migrated, and raided across colonial boundaries despite British attempts to bar Somali cross-border movements. Attempts to control migration by forbidding the Somali to cross imaginary barriers such as the 1909 "Somali-Galla Line were ineffective."[7] The Somali were not easily contained within administrative areas because of their highly mobile lifestyles. With little to hold clans to an area except pasture and water, clans moved on short notice and often. When large-scale warfare occurred, it was a major force for clan migration so that herds could be protected and scarce resources safeguarded against other clans.

British adaptation to the change in clan power dynamics was slow. When disputes occurred in British territory, Somali clan members from Italian Somaliland or Ethiopia would intervene. The British preferred to delegate the governing of the Somali to their headmen; this method extended to resolving blood debts and feuds. Less than one hundred British police administered the district, and clan segments lived on both sides. Often influential leaders such as clan headmen could live outside British territory but still command the allegiance of Somali in the Northern Frontier District.[8]

The British, to facilitate ending armed clan warfare and enforcing tax collection, as well to establish security in the NFD, "between 1921 and 1925 administered the district with the military. Civilian control was established in 1926 and continued until 1946."[9] This control mechanism was weak at best, subject to the Somali's perception of the British administration's ability to provide security and to the potential for economic advancement. There was no attempt to build a Kenyan identity or conduct major economic ventures in the NFD. The British and the Somali both accepted that the NFD was different from the rest of Kenya, but their perceptions differed on multiple levels. The Somali attitude was based on religion, tradition, ethnic background and lifestyle, whereas the

British regarded the Somali as first and foremost a security problem that required continual attempts toward integration into Kenya colony.
The Somali resisted the concept of a common identity with those non-Somali of the south and actively distanced themselves from non-Muslim and ethnically different Bantu Kenyans. The Somali defined themselves as so radically different from the Bantu that they – and the urban Waso Booran and Isaq – successfully demanded that the British in the Northern Frontier Province classify them as "Asians" for tax purposes. This classification translated into more privileges but also higher tax rates and the payment of a "Non-native poll tax."[10] Somalis such as the Isaq, who operated businesses outside the Northern Frontier Province in cities such as Nairobi, took pride in paying the higher tax rates since it confirmed that they were not Africans.[11] Their pride may have been less due to seeking benefits of being considered "Asian" and more to their conviction of ethnic superiority. The Somali regarded non-Somali Africans as slaves while considering themselves to be free.[12] Such attitudes toward normally onerous tax obligations reflected the absolute necessity for flexibility in policies toward the Somali.

British administrators chose to resolve issues with a limited portfolio of military action, penalties and extreme measures such as relocating entire clans to end inter-clan violence amongst the Somali. One example was the mass relocation of the Aulihan clan in 1914, when it was removed from Wajir to stop violence with the Muhammad Wajir clan. Relocating clans was of limited effectiveness since the Aulihan were soon reported to be returning to their former lands.[13] Such intransigence on the part of the Somali was a direct reflection of their cultural values and traditions. The Somali fought for more than land; they fought for clan rights and power. Land was useful only insomuch that it possessed lush pastures and water for animals. The true measure of power within the clan was the leader's ability to protect the clan's interests against outside competitors. The British attempts to govern the region ran counter to many clans' interests and in doing so created a rift between the colonial government and the Kenyan Somalis.

Early British attempts at pacification met with a string of failures and frustration.[14] The British committed major errors while they sought to pacify the region, to include mistakenly arming the Gurre clan, neglecting to establish a program for national identity cards (*kipande*), and failing to

resolve the issue of extradition of those who escaped to Italian Somaliland to escape prosecution. After arming the Gurre in 1921, the British attempted to register their firearms, a process that was confounded when the Gurre went over the border to Italian Somaliland. More pointedly, the lack of national identity cards such as those required in the rest of Kenya by the Registration Ordinance complicated identification of Kenyan Somali. Fire-resistant identity discs were later issued upon disarmament to clan members, but the region continued to be flooded by illegal weapons brought in by gun smuggling herdsmen of the NFD.[15] Security concerns plagued the colonial authorities throughout their administration of the district and required constant innovation and engagement with the Somali clans.

Attempts to institute other modern registration methods were met with passive resistance by the Somali's such as mass movement of the clan across the border into Italian Somaliland. In such a manner in 1923, the Gurre resisted British attempts to fingerprint the tribe by border crossing, while their fellow Muslims, the Booran accepted the measure.[16] This example demonstrates a key difference between the Somali clans and their allies in Kenya. The Somali were not tied to the land per se, but their non-Somali Muslim allies like the Booran were and so their modes of resistance were fewer. This dichotomy would come to the fore during the Shifta War when the Somali crossed the border to evade Kenyan military forces, while the Booran suffered reprisals due to their more sedentary lifestyles.[17] However, if forced to live sedentary existences, the Somali lost access to the grass and water vital to the health of their herds. The Kenyan government later exploited this inherent weakness when it mandated villages for the Somali as a countermeasure to civilian support for *shifta* attacks.

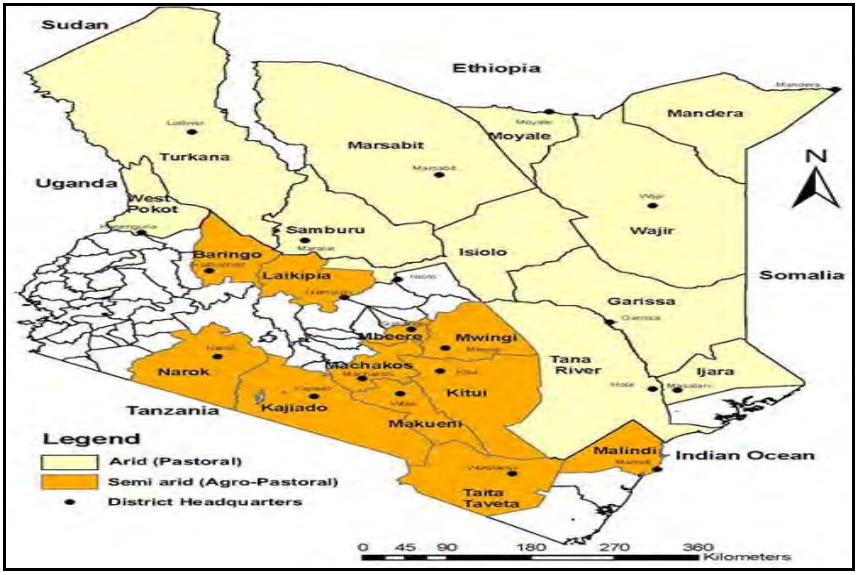
The British penchant for paper-based solutions to control issues was extended to legislation designed to control Somali movement south of the NFD boundaries. The British solution to north-south movements was the Outlying Districts Ordinance (ODO) of 1926 that made the NFD a closed district.[18] The ODO was followed a decade later by the Special Districts Ordinance (SDO) of 1934. The SDO sought to, "control the spread of Islam which could invalidate formal and tribal regulations on grazing and watering concessions, contain cattle epidemics such as pleuropneumonia, and demarcate tribal zones so as to protect tribal resources."[19] Interestingly

enough, the SDO was rationalized by British administrators as protecting the Somali against undesirable influences from the Kenyan highlands.[20] Such ordinances reflected how tenuous British control was within Kenya and the nature of the threats the colonial government perceived to its rule.

The colonial government imposed regional access restrictions because the Northern Frontier District's inhabitants were so difficult to control, politically conscious and had ready access to weaponry. An imaginary meridian was designated that ran from Isiolo along Ewaso Ng'iro to the Tana River in Garissa District. Beyond this line Somali were required to have stamped *kipande* and in lieu of the pass, be accompanying a white European as a servant.[21] The restrictions ran both ways however, since Kenya visa holders required special clearance to visit NFD. The Special Districts Ordinance was however unable to restrict Somali political activism and in the period following World War II, Somalis and their fellow Muslims the Waso Booran sought to join their fellow Somali clan members in a Pan-Somali union. This was however, not to be.

The Shifta War of 1963-1968 was not an event that occurred in isolation, but rather one that had a deep history imbedded in Somali isolation, marginalization and disenfranchisement. The British cynically used the Northern Frontier Province as a buffer zone and despite opportunities to develop the Somali, chose instead to develop the south while isolating the north.

Map 1. Kenya Map. Source: http://www.lib.utexas.edu/maps/africa/kenya.gif.



Map 2: Kenya Districts. Source: http://www.allpro.go.ke.

The lack of political and economic engagement with the other Kenyan ethnic groups fostered conditions in which the Kenyan Somali identified more with their northerly Somali clan members in Italian Somaliland and later, Somalia, than with Kenya. When Pan-Somali irredentism swept the Horn of Africa in the 1950s, Kenyan Somali identified with its sentiments, especially those that emphasized the re-unification of the Somali into a single Somali nation. Having been legislated and marginalized into an existence neither fully Kenyan nor fully Somali by British colonial authorities, the Somali clans eagerly embraced the Pan-Somali movement.

In 1962, as part of preparations for Kenyan independence, the British government conducted a plebiscite to determine the wishes of the Somali and their Moslem allies in the NFD. The results established that over 87% of the NFD inhabitants wished for union with the Somali Republic, especially the Somali and Waso Booran, who voted to join the Somali Republic. However, the British put Somali interests second to Kenyan independence, and post-independence relations. Minutes of British cabinet meetings conducted between March and June of 1963 paint a complex

picture of how the British government pursued its interests, and the rationale for retaining the NFD. Duncan Sandys, the Colonial Secretary, cited as a condition for independence, the need to train Kenyan military forces for at least eighteen months following independence, and the exchange of military assistance for valuable training facilities and over-flight rights. The Northern Frontier District's inclusion in Kenya was intended as an interim measure. The British Government theorized that the Kenyan government would realize that retaining the NFD against the will of the Somali inhabitants would incur heavy policing and administrative costs, and prove amenable to Somali secession.[22]

The British recognized from their past administrative experience that the estimated 240,000 Somalis of the NFD constituted a powerful opposition block to the Kenyan government. Somali irredentism fed into Kenyan Somali resistance as well, the Somali Government proclaiming support through a number of venues including radio propaganda broadcasted from Mogadishu. Possessing powerful external support and feeling little allegiance to Kenya's other non-Muslim ethnic groups, the Somali saw little gain in remaining with Kenya.[23]

Sandys' decision generated immediate resentment amongst the Somali in both Somalia and Kenya. Feeling betrayed by the British and pledging no allegiance to the Kenyan Government, Kenyan Somali protested their inclusion in Kenya by boycotting the elections of 1963. Despite Kenyan government offers of economic assistance to improve pasture and new water boreholes, the Somali regarded these tenders as less desirable than union with Somalia. Armed resistance began in May 1963 with a series of attacks upon police stations and polling places, and in one case over 1,000 Somali attacked a polling site in Isiolo necessitating a call for assistance that brought four platoons of the King's African Rifles to patrol the town.[24] Violent protest quickly morphed into a concerted campaign designed to demonstrate Kenyan Somali resolve, while also wearing down the ability of the Kenyan military and police to control North-Eastern Province.

The Somali political party, the Northern Province People's Progressive Party (NPPPP), openly rejected inclusion in the Kenyan Government. The few non-Somali politicians that accepted Kenyan sovereignty and prepared for independence were quickly subsumed by a brief, but powerful protest

campaign. Having received no indication of independence from Kenya, Somalis began the opening attacks of what became the Shifta War in November 1963, a series of attacks on police stations. Somali raiders struck deep into Kenyan territory; on November 22 1963 *shifta* staged their most audacious attack to date by attacking a King's African Rifles camp at North-Eastern Province's capital, Garissa. The one hundred mile raid captured the attention of the Kenyan government, swiftly resulting in the deployment of hundreds of Kenyan soldiers by air and road to contain the shifta threat.[25] Politics gave way to traditional patterns of raid, stock theft, and symbolic shows of force.

The Kenyan Somali of the Northern Frontier Districts Liberation Army comprised the military wing of the Northern Province People's Progressive Party (NPPPP), the fighters that the Kenyan government labelled *shifta*. Although military targets numbered among the *shifta*'s initial targets, political figures that the NPPPP identified as collaborators with the Kenyan government also figured prominently. Other targets included government installations such as police stations, and key transportation infrastructure such as bridges.[26] Operationally, *shifta* attacks demonstrated little tactical sophistication, and were designed to achieve political, rather than military objectives. *Shifta* objectives centred around the expulsion of European administrators and advisors from the NFD, greater Kenyan attention to minority interests, demonstrating Kenyan inability to secure the North-eastern, Eastern and Coastal provinces, preventing collaborationist politicians from taking office in the Kenyan government, and severing the NFD from Kenya and joining it to Somalia.[27] The NPPPP re-directed traditional Somali clan warfare and raiding against the Kenyans in pursuit of political aims, and by doing so transformed the *shifta* into nationalist guerrillas.

The clan structure of Somalis greatly facilitated the organization of *shifta* forces: operational security was achieved by organizing forces into small clan-based, semi-independent cells that received their orders from the upper echelons of the NPPPP. *Shifta* units required limited communication with other clans, and utilized code names to protect clan and individual identities. Further complicating the Kenyan attempts to counter the *shifta* threat was the establishment of two separate groups after 1963. The Northern group composed primarily of Gurre Somali operated near the Ethiopian border, whereas the southern group was predominately from the

Daarod clan. Both groups received operational guidance from the Somali government in Mogadishu. Somalian military and police forces of the Somali National Army and Special Branch provided significant military training and weapons to Kenyan Somali *shifta*.[28] Many Somali also possessed combat experience gained from colonial military service. Perhaps most importantly, Somalia provided camps and other training facilities within its borders to Kenyan Somali *shifta*.

The time-tried practice of utilizing international borders to evade pursuit or attain sanctuary proved invaluable to the *shifta*, marshalling points for 1,000-man strong battalions operating from bases along the Kenya-Somali border. Border bases served as launching points for raids after 1963, and from these protected areas platoon-sized groups (sometimes as few as ten or as many as a hundred), armed with obsolete Italian and British small arms infiltrated back into Kenya at movement rates of upwards of 80 kilometres per day. Almost immediately these small bands of camel-mounted scored successes against the remaining British colonial authorities and Kenyan government along Kenyan-Somali border adjacent Kenya's Coastal Province. The *shiftas*' raids relied upon intelligence gathered by Somali sympathizers, deep knowledge of the environment, minimal logistical requirements, and robust Somali civilian support.

The Kenyan government reacted to shifta attacks by imposing a state of emergency in December 1963, and instituted a dawn-to-dusk curfew, which was added to existing regulations that restricted entry into the NFD by non-residents. In addition, police officers were armed and empowered to shoot *shifta* on sight, and in perhaps the most contested action, military forces were authorized to confiscate cattle found within five miles of the Kenya-Somali border. Measures reminiscent of British Mau Mau counter-guerrilla tactics, such as sweeps intended to capture NPPPP leaders, failed because of the Somali cell structure. Attempts to establish collaborators amongst the Somali also failed due to *shifta* assassinations or kidnappings. Instead of securing Somali loyalty, these measures created more support for the *shifta* and compelled an exodus of Somali from urban areas located near roads.[29]

The Kenyan government's military solution involved an array of five infantry companies as well as police and the police air wing: approximately 700 infantry and police against 1,000 estimated *shifta*. The military formed

the offensive power for the ad hoc military-police units, while the police performed the legalities of arrest, interrogation and arraignment of criminal suspects. Added support came from British officers who remained to provide leadership for the Kenyan infantry units until the Kenyan military could train enough Kenyan officers, and RAF reconnaissance aircraft operating from the airfield at Nanyuki.[30] RAF spotter plane assistance proved invaluable for spotting illegal *shifta* villages from the air and prevented *shifta* from concentrating into base camps within Kenya. Aircraft also transported most of the initial Kenyan reinforcements to the NFD.[31] *Shifta* tactics did not encompass the establishment of camps in Kenya, therefore aerial reconnaissance proved to be the key in locating and interdicting *shifta* bands before they reached the safety of the Somali border. Despite technological advantages, the Kenyan military suffered from a host of issues spanning the areas of personnel, intelligence, and equipment.

Kenyan forces faced a number of shortcomings operating in the NFD, most of their personnel drawn from across Kenya and possessing little knowledge about the environment or guerrilla warfare despite experience gained during operations against Mau Mau guerrillas. In addition, Kenyan forces required interpreters for all but the simplest tasks. Kenyan army and police patrols required greater logistical support than the *shifta*; Kenyan troops attempted to respond to *shifta* attacks with a combination of foot and vehicle patrols. The great distances involved kept Kenyan forces dependent on the roads, the military uncertain where the *shifta* would cross the border. Inclement weather affected Kenyan manoeuvrability as well, heavy rains washing out roads and bridges, while the *shifta* travelled cross-country on camels.[32] Traditional *shifta* border crossing tactics lent themselves well to this stage of the insurgency, raids and harassing attacks demonstrating that the *shifta* maintained the initiative against Kenyan forces, while the Kenyan forces could not pursue the *shifta* across the border with Somalia without creating a state of war.

Shifta employed psychological operations in concert with other military options against the Kenyan military, their raids along the 700-kilometer long border inflicting significant psychological stress due to the uncertainty regarding what points of the frontier required monitoring form the thinly-spread Kenyan forces. *Shifta* did not adhere to Geneva Convention protocols, and *shifta* bands emasculated any captured soldiers in order to

terrify their predominately non-NFD Kenyan opponents. An effective adjunct to the guerrilla war, *Shifta* recovered their dead and wounded from the battlefield, frustrating efforts to gauge battlefield effectiveness by Kenyan forces. As a result, morale for Kenyan Somali soldiers dropped to the point where by February 1964 the Kenyan military removed all ethnic Somali soldiers from the NFD.[33] The *shifta* operated in small units and achieved success through psychological warfare, unpredictable strikes, and utilized Somali sympathizers to their advantage. The *shifta* possessed few other advantages over their Kenyan foes, but employed what tactical advantage they possessed to good effect.

The *shifta* demonstrated weaknesses of their own, despite possessing psychological and mobility advantages over Kenyan forces. *Shifta* armament frequently jammed during protracted engagements with the Kenyan military, and Kenyan heavy weapons and mortars quickly overmatched the *shifta's* light weaponry in protracted engagements. Unlike the Kenyans the *shifta* possessed no air assets, a factor that the Kenyans used to maximum advantage to move troops and conduct reconnaissance.[34] Additionally, although there was no recognized *shifta* tactical doctrine, the primary *shifta* form of attack was the ambush, usually conducted against a small, isolated Kenyan foot column or against pursuing forces. Shifta created a fire-box that depended on surprise and overwhelming firepower to defeat the Kenyan soldiers. If Kenyan units could maintain discipline and force the *shifta* to stand and fight for long periods of time, the Kenyans could and did defeat *shifta* after the initial period of shock.

The tactical situation in the North-Eastern Province favoured *shifta* guerrilla attacks between 1963 and 1964, the guerrillas' small ten-man units striking targets and retreating before the thinly spread Kenyan forces could respond. Shifta also attacked outside the North-Eastern province, raiding for cattle in Meru and Samburu territories, as well as attacking targets in Coastal Province. However, *shifta* attempts to expand the insurgency were only partially successful. While the Kenyan military contested the NFD with the *shifta*, the Kenyan Government responded to *shifta* raids by attempting to split their clan coalition. Despite lacking the tactical initiative, President Jomo Kenyatta offered periodic amnesties that produced some surrenders, including that of Warsame Ilaye, a *shifta* leader. Ilaye's surrender proved to be an important event for the Kenyan Government,

Ilaye sharing recommendations on how the insurgency could be defeated through political engagement with Kenyan Somali leaders and a potential mass amnesty program.[35] Before such programs could succeed however, the Kenyan government was confronted by a grave treat that threatened to destroy the morale and fighting ability of its forces in the North-Eastern Province: land mine warfare.

Mine warfare began in earnest in 1965, a change in tactics necessitated by increasingly efficient Kenyan foot and air patrols along the Somalia-Kenya border resulted in the deaths of hundreds of *shifta* in small unit actions. The Kenyan military, recognizing in late 1964 that their thinly armoured vehicle convoys composed of Bedford trucks and Ferret scout cars were vulnerable to mass small arms fire and bazooka ambushes, purchased a number of armoured personnel carriers from the British. Stymied by an increasingly armoured foe, *shifta* employed landmines as an effective countermeasure and utilized uncertainty regarding mines to their advantage as a psychological weapon against the Kenyan Government forces. Shifta no longer needed to remain in an area following infiltration; land mines continued to cause casualties and demonstrate Government inability to secure areas after the *shifta* raiders departed for the security of their border camps. The Kenyan Government's response to the mine threat consisted of purchasing trucks equipped with a v-shaped underside, sandbagging troop compartments, and by utilizing local meetings, or barazzas to call attention to the mine threat. The *shifta* mine campaign created an unexpected opportunity for the Kenyan Government to turn the scales against the mine-emplacing *shifta*. Previous to 1967, government policy had been to penalize villages for supporting *shifta* if a mine detonated near a village. However, by offering cash inducements to turn in land mines and the opportunity to avoid additional animal confiscations, the government deprived the *shifta* of support.[36] The new approach succeeded and in conjunction with the Government's villagization process begun in 1966, the Kenyan Government's attempts to split the Somali from the *shifta* bore results.

Recognizing that denying *shifta* access to their Somali supporter significantly impacted *shifta* operations, the Kenyan government embarked on the *manyatta* campaign of forced relocation in the NFD. Settling the pastoralist Somali into government *mantayyas*, or fortified villages paralleled the Kenyan government's policy of confiscating camel herds. Muslim

populations, including Somali, Sakuye, and Waso Boran, were settled in fifteen "strategic villages" enclosed by barbed wire. Any huts located outside the *mantayyas* were destroyed by the Kenyan military as potential *shifta* bases, and camel herds were shot as "supporting the enemy." Residents found a mile outside the villages were considered *shifta* and arrested or shot.[37] These measures in part constituted an attempt to reduce the number of potential *shifta* operating in the North-Eastern Province at any given time, while reducing the estimated annual £300,000 border security costs. Individuals in the mantayyas could be regarded as non-*shifta*, while those violating restrictions were punished severely.

The Kenyan government's decision to institute *mantayya* villagization came at a time when land mine warfare in Isiolo caused many to flee in fear. The exodus compelled some to become refugees as far away as Tanzania and Uganda for fear of Kenyan reprisals. The Kenyan government campaigns of 1967 were carefully planned and executed, and *mantayya* villages formed part of the strategy to clear districts of *shifta*. *Mantayya* villagization occurred in conjunction with combined Ethiopian-Kenyan border operations under Operation Fagia Shifta. Operation Fagia Shifta utilized the entire array of Kenyan military assets including air transport, armoured columns, and search and destroy patrols. The three-phased operation cleared Isiolo and Garbatulla Districts, swept Wajir District, and finally cleared Garissa and Coastal Districts. Shifta were pushed back into Somalia and suffered high losses when they attempted to enter Ethiopia.[38] Despite military success, the *mantayya* component proved a disaster for the Somali. The major component missing from Kenyan strategy was an appreciation of pastoralist livestock requirements. *Mantayyas* concentrated humans and animals into areas that ignored the traditional cycle of pasture and water that sustained herds. *Mantayyas* were a death sentence to the Somali pastoralist way of life.

The few remaining Somali animals were subjected to an ever-dwindling supply of food and water within the immediate vicinity of the *mantayyas,* and as a result many of the herds were destroyed by starvation or disease. In addition, Mburu asserts that a covert campaign of well poisoning may have been the compelling reason for many Somali to abandon their traditional lifestyle due to lack of water access.[39] Other Muslim groups sustained losses of livestock as well, urban and pastoralist populations penalized for *shifta* attacks against Government installations or manpower.

Urban Muslim groups in the North-Eastern Province also suffered from the confiscation regulations and movement restrictions. The Waso Booran, concentrated around Isiolo town, sustained immense livestock losses as punishment for increasingly effective *shifta* landmine warfare after 1965.[40] Although the main inhabitants of Isiolo District, the Muslim Waso Boorana, assisted the Somali, aid was motivated by fear of retaliation against their clan.[41] The result of the *mantayya* villages and punitive confiscations for the Booran was a massive loss of livestock: between 1963 and 1970 the camel population declined by over 95 per cent from 200,000 to 6,000, the small-stock population by over 90 per cent from 500,000 to 38,000, and the cattle population by about 7 per cent from 150,000 to 1400.[42] These losses were so great that the Booran way of life was irreparably changed. The same losses also affected Somali as their livestock defined their culture and identity within the culture.

Regardless of urban or rural lifestyle, stock confiscation cut across Somali society as it struck directly at the heart of Kenyan Somali identity, economics and culture. As historian Nene Mburu observed, the measure of a man's substance in the Somali community was the possession of a large herd of milk camels.[43] The Kenyan confiscation tactics forced both Somali and their Muslim allies to choose between *shifta* and survival. Not all stock losses originated within Muslim communities however, some *mantayyas* were inhabited by government supporters opposed to *shifta*.

Despite *shifta* support amongst the Somali and their Muslim allies, they did not command the support of all North-Eastern Province inhabitants. In Marsabit and Isiolo Districts, Christian Boran and Burji formed the Northern Province United Association (NPUA) and eagerly affiliated themselves with the Kenya African National Union (KANU). The government relocated these groups into *mantayyas* where government-supplied Home Guards protected them against *shifta* raids. However Home Guard proved inadequate against many *shifta* attacks in large part due to under-supply of weapons due to colonial-era laws that restricted individual movement and weapon possession.[44] Shifta attacked such *mantayyas* and raided them for stock as well as hostages. According to Whittaker, Special Branch Weekly Reports cite murder, abductions, shop raids and attacks on stock traders by *shifta*. The victims of such attacks were inevitably loyalist chiefs or politicians, traders or settled *mantayya* residents.[45] Somali *shifta* and

their victims understood the clear symbolic value of raiding government *mantayyas*: the government cannot protect you.

Recently declassified Kenyan government files testify to the effectiveness of the *shifta* tactics in the North-Eastern Province and reveal that by 1967, despite all attempts to defeat the *shifta*, the Kenyan government stood at the brink of war with Somalia. Operation Fagia *Shifta* and *mantayya* villagization formed the Kenyan government's response to the *shifta* menace for 1967. Failure may have resulted in a full-scale military call-up. The Kenyatta government also hired Lieutenant Colonel R.S. Richmond to draft the blueprint for Kenyan psychological warfare operations against the *shifta*. It was acknowledged that winning the war relied upon winning the support of all Kenyan Somalis. The Kenyan government was extremely concerned about the land mine warfare, as it struck fear into Kenyan Army patrols while simultaneously demonstrating the *shiftas*' ability to strike at will against Kenyan forces. The land mines originated in Somalia, a state which had grown immensely more dangerous to Kenyan interests since the Soviet government provided military aid and training to create an officer corps and regular army for Somalia. As British diplomats had predicted, Kenya also possessed insufficient funding for a full-scale war against the *shifta*, thus necessitating a greater emphasis on psychological warfare as the tool to break the *shiftas'* hold on power in the North-Eastern Province.[46]

The cost of combating the *shifta* rose incrementally between 1965 and 1967 as the *shifta*, recognizing their inferiority in conventional tactics, transitioned almost exclusively to land mine warfare in 1965. The Kenyan government's dependency on motorized transport and lack of effective counter-mine capacity translated into massive military expenditures. As *shifta* human wave tactics gave way to planted mines, "by 1966 mines cost over £3,000,000 in damage, a figure that soared to £7,500,000 1967."[47] War is never inexpensive, either in human cost or materiel, and the *shifta* tactics of mine laying combined with the loss of cattle and other property contributes to costs not figured into the official totals. The Kenyan government faced the possibility of enlarging the scope of the guerrilla war in order to decisively end it and stop the financial haemorrhage.

Shifta operations against government forces and *mantayyas* peaked in 1967, *shifta* units conducting harassing attacks against fortified government positions punctuated with convoy ambushes normally conducted at night.

Kenyan government forces continued the confiscation of livestock, and burned illegal manyattas and huts. *Shifta* activity reached its highest point between June and August with an escalating series of attacks on police posts, abductions, and ambushes. *Shifta* attacks culminated in an unprecedented contact on August 17, 1967 between Kenyan forces and an estimated 800 *shifta* that resulted in the deaths of at least 40 shifta and three Kenyan army personnel.[48] This was the last major assault by the *shifta.* Their support, both internal and external, suffered serious reverses after political action achieved what military methods could not in four years of fighting. Somalia and Kenya reached a diplomatic understanding brokered through the Organization of African Unity under the auspices of Emperor Haile Selassie.

Kenyan and Somali leaders exchanged vitriol and bluster during the heated period immediately following Kenyan decolonization. Despite British predictions that the cost of the war would prompt Kenya to agree to the North-Eastern Province seceding from Kenya, the Kenyatta government resolutely opposed Somali irredentism, stating in 1965 that "Kenya will not allow any part of its territory to be dismembered and will defend her territorial integrity by every means."[49] Waning support for Somali irredentism, and the recognition of the dangers it posed to other African states, also influenced Mogadishu's decision to seek reconciliation with Kenya. Perhaps *shifta* military efforts in July 1967, much like Operation Fagia *Shifta*, constituted a final attempt to force a decision on North-Eastern Province secession. Somalia's Prime Minister Mohamed Egal sponsored diplomatic efforts between Somalia and Kenya in the OAU, and a Memorandum of Understanding was issued that signalled the Somali government's willingness to cease support for Kenyan Somali *shifta.*[50] The last hope for Kenyan Somali independence foundered with the re-establishing of diplomatic relations between Somalia and Kenya, but it had been a close run thing.

Shifta activity did not cease in 1968 despite the loss of Somalia's support. The *shifta* turned once more to traditional modes of raiding, the Somali independence drive collapsing under the combined strains of devastated pastoralist economies, loss of external support, and failure to bankrupt the Kenyan government through a war of attrition. Clans turned against one another, and much of the *shifta* activity in the North-eastern Frontier Province was by Somali no longer bound by tradition. Reverence respect

for elders and tradition was replaced by livestock theft and defiance of authority.[51] *Shifta* operations lost valuable legitimacy when the Kenyatta government successfully organized mass rallies against the *shifta* that involved Somali elders from all the frontier districts.

The Kenyan Government accepted a Somali delegation to Nairobi in June 1967, the leaders having previously expressed confidence in the Kenyan government and a rejection of Somali irredentism. The public shift towards support for the Kenyan Government, combined with ongoing *shifta* land mine warfare, continued to distance the *shifta* and their rapidly dwindling supporters from non-*shifta* civilians. The most significant blow to the *shifta* cause was self-inflicted: the killing and mutilation of Somali elders sent to negotiate an end of the insurgency through authorized surrender amnesties. As a result of the massacre, Mandera District and its fighters surrendered first, and after *shifta* from different clans continued offensive operations in Mandera District, the former *shifta* joined with the government. The *shifta*, although they continued to resist the Kenyan government, no longer acted with the moral authority of freedom fighters.

John Powell's analysis of Kenyan foreign policy during the Shifta War neatly summarizes one major factor for the Government's victory "by 1968 the Kenyan government had successfully turned the war into a nationalist struggle."[52] The Kenyans won the civil-military conflict and in doing so, won the war.

The *Shifta* War began with the legacies of the colonial period, British colonial isolation and underdevelopment contributing to Kenyan Somali alienation from the rest of Kenya. The poorly executed transfer of authority between Britain and Kenya also created strong feelings of betrayal that could not be overcome by scant concessions from Nairobi. The NPPPP's declaration of secession and the *Shifta* War embodied the heady post-colonial drive to reunite lost territory that Somalian irredentism demanded. The real danger of the Somali irredentist movement was the potential for other states to attempt similar border renegotiations, with the resulting potential for massive political chaos amongst the ethnically and religiously heterogeneous states of Africa. Colonial states crossed ethnic lines, dividing groups between several states in many cases. The Kenyan Somali *shifta* drew power from this separation at first, exchanging their

service as foot soldiers for Somalian external support. However, when Somalia withdrew support, the guerrilla movement foundered.

The Kenyan response to the *shifta* insurgency combined military and civil action to defeat a foe that had previously confounded colonial authorities. The forced mantayya village program and ensuing collapse of Somali pastoralism constituted a major force for defeating the *shifta*. Despite these defeats resistance could have been sustained if Somalia continued aid. The withdrawal of foreign aid removed the last support from the *shifta* secessionist movement. The refusal of non-*shifta* groups to abandon political and military alliances with the Kenyan government constituted the death blow to the *shifta*. Terrorist tactics of kidnapping, assassination, and disregard for impact of actions on the larger population alienated potential supporters. The *shifta* policy of raiding *mantayyas* even after the Kenyan government confiscated or destroyed large numbers of animals continued to set back their losing cause. Stealing from the starving engendered bitterness and when political change occurred, the *shifta* were abandoned by most. The one-time nationalist patriots returned to their lives of petty raiding and banditry, self-fulfilling prophecies of President Kenyatta's declaration that they were only bandits.

---

[1]Nene Mburu, *Bandits on the Border: The Last Frontier in the Search for Somali Unity* (Trenton, New Jersey: Red Sea Press, 2005), 131.

[2] Saadia Touval, "Africa's Frontiers: Reactions to a Colonial Legacy," *International Affairs* (Royal Institute of International Affairs) Vol. 42, No. 4 (Oct., 1966): 650; Mario I. Aguilar, "Writing Biographies of Boorana: Social Histories at the Time of Kenya's Independence," *History in Africa* Vol. 23 (1996): 360.

[3]A.A. Castagno, "The Somali-Kenyan Controversy: Implications for the Future," *Journal of Modern African Studies* vol.2, no.2 (July 1964):170. Castagno is quoting Sir Charles Elliott's *The East African Protectorate* (London, 1905). A longer version of this quote is available in Vincent B. Thompson, "The Phenomenon of Shifting Frontiers," *Journal of Asian and African Studies* Vol.30, No.1-2 (1995): 11. Thompson's quote stressed that the clans were too small for effective administration and the division of the clans between British and non-British lands.

[4] Nene Mburu, "Contemporary Banditry in the Horn of Africa: Causes, History and Political Implications," *Nordic Journal of African Studies* Vol. 8, No. 2 (1999): 44.

[5] Castagno,169.

[6] I.M. Lewis, *A Modern History of the Somali. Nation and State in the Horn of Africa.* (Athens, Ohio: Ohio University Press, 2002), 11. Lewis's exposition on Somali

social units is invaluable for those who would understand how clan identity served as a unifying influence on par with that of a nation-state.

[7] Castagno, 169

[8] Ibid, 170

[9]Mburu, "Contemporary Banditry," 45.

[10] Thompson, 12.

[11] E.R. Turton, "The Isaq Somali Diaspora and Poll-Tax Agitation In Kenya 1936-41," *Africa Affairs*, Vol.

73, No. 292 (July, 1974): 327.

[12]Thompson, 18.

[13] Thompson,15.

[14] E. R. Turton, "Somali Resistance to Colonial Rule and the Development of Somali Political activity in Kenya 1893-1960," *Journal of African History* Vol. 13, No. 1 (1974): 123.

[15] Mburu, "Contemporary Banditry," 48-49.

[16] Castagno, 171.

[17] Elliot Fratkin, "East African Pastoralism in Transition: Maasai, Boran and Rendille Cases," *African Studies Review* Vol. 44, No.3 (December, 2001): 16.

[18] Castagno, 171.

[19] Mburu, "Contemporary Banditry," 53.

[20] Castagno, 171; www.mi5.gov.uk, Mi5 surveillance file for Jomo Kenyatta, File ref KV 2/1787-1789.The unnamed undesirable influences were part of the growing anti-British political movements of the 1920s and 1930s in Kenya led by politically active Kenyans such Harry Thuku and Jomo Kenyatta, and actively monitored by British Intelligence Organizations such as Mi5.

[21]Mburu, "Contemporary Banditry," 55-56.

[22]Hannah Whittaker, "Pursuing Pastoralists: the Stigma of Shifta during the 'Shifta War'

in Kenya 1963-1968," *Eras* Edition 10 (November 2008): 5; Lewis, 191-192; CAB/128/37 image 0016, 14 March 1963,

www.nationalarchives.gov.uk/documentsonline; CAB/128/37 Image 0041, file 263, June 1963 www.nationalarchives.gov.uk/documentsonline; Fratkin, 16.

[23] John Howell, "An Analysis of Kenyan Foreign Policy," *The Journal of Modern African*

Studies Vol. 6, No. 1 (May, 1968): 38-39. The 1962 census of the NFD counted 388,000 inhabitants.

[24] "Somalis Killed at Polling Station," May 25, 1963, *The Times* (London).

[25] "100-Mile Raid Over Kenya Border," November 22, 1963; "Kenya Moves Troops to the Border," November 25, 1963, *The Times* (London).

[26]Nene Mburu, *Bandits on the Border: The Last Frontier in the Search for Somali Unity* (Trenton, New Jersey: Red Sea Press, 2005): 132. This work is the single most complete source on the Shifta War and skillfully combines interviews with extensive documentary citations. Further citations as Mburu, *Bandits*.

[27] Whittaker, 7; Mburu, *Bandits*, 135-136.

[28] Mburu, *Bandits*, 132-133; 135-138.

[29] Mburu, *Bandits*, 138-141.

[30] Mburu, *Bandits*, 140; Anthony Clayton, *Frontiersmen: Warfare in Africa Since 1950* (London: University College London Press, 1999): 110-111; Fratkin, 16. Mburu describes the military-police units as lacking in cohesion, and beset by command and control problems. Incompatible communications equipment and differing small arms and ammo affected operational Standard Operating Procedures. Compared to the more traditional clan warriors of the *shifta*, the Kenyan Government forces were a less than optimal solution.

[31] Mburu, *Bandits*, 132-138.

[32] Mburu, *Bandits*, 135-138.

[33] Ibid, 142; Clayton, 111.

[34] Clayton, 110-111.

[35] Mburu, *Bandits*, 151.

[36] Mburu, *Bandits,* 159-160. 2.5 pounds sterling were offered for each mine turned in. The Kenyan military's mine detectors couldn't find the plastic mines, and the time intensive practice of probing for mines proved inadequate to the task of rapid response.

[37] Mburu, "Contemporary Banditry," 99-100.

[38] Mburu, *Bandits*, 154; 160-163.

[39] Mburu, "Contemporary Banditry," 99-100.

[40] Fratkin, 16.

[41] Aguilar, 360-361.

[42] Richard Hogg, "Development in Kenya: Drought, Desertification and Food Scarcity," *African Affairs* Vol. 86, No. 342 (Jan., 1987): 53.

[43] Mburu, "Contemporary Banditry," 99.

[44] Mburu, *Bandits*, 140-141. The Outlying Districts Ordinance and Native Arms Ordinance formed part of the British colonial government's attempts to control weapon smuggling by Somali clans.

[45]Whittaker, 12-13; Mburu, *Bandits*, 145-146.

[46] John Kamau, "How Kenya Averted War With Somalia," *East African Standard*, Issue 105, January 18, 2004.

http://www.somalilandtimes.net/2003/105/10518.shtml.

[47] Mburu, *Bandits*, 152-153.

[48] Whittaker, 9-11.

[49] Howell, 40.

[50] Ibid, 38-39.

[51] Mburu, "Contemporary Banditry," 100.

[52] Howell, 40.

Early Eighteenth Century Naval Chemical Warfare in Scandinavia: A Study in the Introduction of New Weapon Technologies in Early Modern Navies

By Michael Fredholm[*]

In these days of recurring cutbacks in government military spending, outsourcing, and the privatization of warfare with private-sector military firms involved in naval affairs,[1] it may be worthwhile to remember that it was not always a foregone conclusion that, from an organizational point of view, a modern navy would have to be responsible for its own armaments technology. Indeed, the opposite held true well into the early modern period. Privateering remained a viable business into the nineteenth century, and a privateering firm was responsible for its own armaments, as had always been the case with those merchantmen who chose to carry weapons in self-defence.

Already by the early seventeenth century, it had became clear to the Swedish navy that although it still could recruit shipwrights and sailing crews among civilians, it would henceforth have to take full responsibility for the continued development of armaments and naval weapons technologies. Non-professionals were simply no longer good enough, and besides, civilian shipwrights could and did change sides to take employment with the enemy. The Swedish navy thus saw several reasons why it should assume control of naval weapons technologies. Security of modern armaments supply was one, to keep the technology under exclusive naval command was another. Most important, however, was the need to ensure access to the most advanced weapons technologies available at the time. The navy did not wish to lose ground in technological developments. To do so would be to concede defeat to the other naval powers in the Baltic region, in particular Denmark. For Sweden and the Swedish navy, Denmark was an existential threat that could not be ignored.

[*] The author is a member of the Department of South and Central Asian Studies, Stockholm University

Already from the outset, the rivalry between Sweden and Denmark had included the adoption of new technologies.

When the modern Danish and Swedish navies emerged in the early sixteenth century, they developed swiftly and in surprising ways. Not only did they grow in size and strength very rapidly, they also experimented with unexpected types of armaments such as pyrotechnics and rockets. These developments were caused by the struggle between Denmark and Sweden over hegemony in the Baltic region. The Nordic Seven Years War (1563-1570) between Sweden one the one side and Denmark-Norway, Lübeck (the informal capital of the Hanse League), and Poland-Lithuania on the other was the first modern war at sea in Europe between fleets of sailing ships armed with cannon. During the war, the Danish and Swedish navies grew to be the largest sailing fleets in Europe at the time, both becoming equal in size to the British around 1565 and each surpassing the British in numbers by 1570.[2]

The Danish Straits, the Sound Tolls, and Vital Trade Lines

The rivalry between Sweden and Denmark over hegemony in the Baltic continued throughout the seventeenth century. Denmark still controlled both sides of the Danish Straits, through which all maritime trade into and out of the Baltic had to pass. In 1611, Denmark used its possessions in present southern Sweden as bases for military attacks against the Swedish port of Kalmar on the Baltic Sea, and the newly-founded port of Gothenburg in the west, facing the North Sea. One of several reasons for the war was the reduction in customs duties. The Sound Tolls, paid to the Danish Crown when part of the maritime trade to Sweden was diverted from the Danish Straits to Gothenburg. During the war, Danish fleets blockaded both Gothenburg and Kalmar, mostly successfully. By 1613, Sweden had to accept harsh terms to end the war.

Further wars between the two arch-enemies were delayed by their participation in the Thirty Years' War (1618-1648). The war went badly for Denmark, which was seriously weakened, while Sweden concluded the war stronger than ever. As a result, Sweden in 1643 decided to deal with the latent Danish threat by invading Denmark from the Swedish mainland and from the continent. Defeated, Denmark in 1645 had to agree to peace terms in Brömsebro which included the transfer to Sweden of several new

territories including the formerly Danish-controlled Baltic islands of Gotland and Ösel (Today Saaremaa) as well as the abolition of the Sound Tolls for Swedish trade through the Danish Straits.

The next war between Denmark and Sweden took place in 1657-1658. With Sweden already engaged in a war in Poland, Denmark attacked with the intention to recover lost territories and to force Sweden again to pay Sound Tolls on its Baltic trade. Denmark soon gained supremacy at sea. However, the plan failed as the Swedish army in Poland under King Karl X Gustav in the middle of winter successfully invaded the Danish mainland from the continent. Denmark had to sue for peace, losing its territories in present southern Sweden in the process. However, war almost immediately broke out again, this time with Sweden as the aggressor. In the 1658-1660 war, Denmark was supported by several other countries, most importantly the Netherlands which dispatched a large fleet to the defence of the Danish capital Copenhagen. Following the death of Swedish King Karl X Gustav in 1660, Sweden agreed to return certain territories to Denmark. However, the region that is present day southern Sweden remained in Swedish hands—which gave the two powers equal physical means to impose customs duties on the trade through the Straits.

Yet another war between Sweden and Denmark followed in 1675-1679. The war was part of a greater conflict, again involving Sweden against several hostile countries on the continent. As for the situation between Sweden and Denmark, the Swedish army pushed back or defeated the Danish armies that invaded from respectively Norway and the Danish mainland, thus permanently securing the territories that constitute southern Sweden, while the joint Dutch-Danish fleets remained unbeaten at sea, repeatedly defeating the Swedes.

As a consequence of these defeats and in response to the threat from Denmark, the Swedish Admiralty realized that there was an urgent need for a naval base closer to the theatre of operations than the existing one at Stockholm, which was too far away and, in addition, closed due to ice for much of the year. For this reason, the Swedish King Karl XI in 1679 ordered the foundation of the town and naval base of Karlskrona in southern Sweden, on formerly Danish territory. From 1680, Karlskrona became the key naval base in Sweden.

Further hostilities between Sweden and Denmark followed during the Great Northern War (1700-1721), which concluded Sweden's role as a great power in northern Europe and paved the way for Russia as an emerging great power. Although rivalry between Swedes and Danes would remain, the introduction of Russian naval power in the Baltic region irrevocably changed the strategic context and thereby the demands on the Swedish and Danish navies.

To conclude, the naval rivalry between the Danish and Swedish kingdoms depended on two key problems. First was the issue of the Sound Tolls. The second issue is that both countries had territories that were separated by sea, including the important Danish possession of Norway and the Swedish possession of Finland, in addition to numerous islands and, for Sweden, overseas territories on the continent. Both sides thus faced the very real need to maintain a naval power which could safeguard the supply lines between their different territories and possessions.

The Strategic Context in the Early Eighteenth Century

While neither Denmark nor Sweden at the time of the Great Northern War maintained navies of such comparable size as they had done in the late sixteenth century, their sailing fleets were not insignificant in a European perspective. By 1710, the English navy, the largest in Europe, consisted of 123 line-of-battle ships and 57 other vessels (primarily frigates and a few bomb-vessels), the French navy comprised 94 line-of-battle ships and 28 other vessels, while the Dutch navy had 86 line-of-battle ships and 33 other vessels. As a comparison, in the same year the Danish and Swedish navies each consisted of 39 line-of-battle ships, as well as 13 other vessels in the Danish navy and 17 other vessels in the Swedish navy, respectively. The Russian Baltic fleet, established in 1696, counted only 4 line-of-battle ships and 7 other vessels after Russian troops had captured the Baltic ports in the summer of 1710.[3]

By the end of the Great Northern War, the situation had changed. By 1720, Denmark and Sweden each could only send to sea 24 line-of-battle ships. The Danes also had 16 other vessels, while the Swedes counted a mere 9 other vessels (in addition to an estimated 15-20 privateering ships of various sizes). Most of the Swedish ships suffered from a lack of maintenance and shortage of materials caused by the long war. Russia,

however, had enlarged its navy which by then counted 33 line-of-battle ships and 13 other vessels. Many of the new Russian ships had been procured abroad, particularly in England.[4]

The balance of power at sea had also changed among the other European powers. By 1720, Britain with its fleet of 102 line-of-battle ships and 53 other vessels had finally achieved the supremacy at sea for which the country was to become renowned. The Netherlands had declined as a sea power and its fleet consisted of 56 line-of-battle ships and 18 other vessels. France, finally, had no more than 27 line-of-battle ships and 6 other vessels.[5]

The emerging Russian threat also meant that Sweden from 1710 had to fight a naval war on two fronts: in the west and south against the traditional enemy, Denmark and its important possession Norway, and in the east, Russia. By 1715, the Russian navy had developed a presence in the Baltic Sea, and the Swedish Admiralty found itself forced to re-establish the defunct navy base at Skeppsholmen in the Swedish capital Stockholm to deal with the new threat. The two other main naval bases on the Swedish mainland, Karlskrona in the south and Gothenburg in the west, were fully engaged by the war with Denmark. The Swedish strategy was to prevent Danes and Russians from co-ordinating and uniting their naval forces. This strategy was for various reasons, not all of them military, successful. Although both the Danish and Russian navies remained serious threats until the end of the war, they were never able to launch a joint offensive.

However, the Swedish navy did not have the strength to fight Danes and Russians in the Baltic and at the same time conduct offensive operations against the Danes in the North Sea and the connected waters of Skagerrak and Kattegatt. As the war continued, the small Swedish naval squadron in Gothenburg, which had only been established in 1700, saw an increasing number of its naval assets being transferred east to the Baltic theatre of operations. This did not mean that the North Sea was of minor importance to the Swedish war effort. Throughout the war, Gothenburg remained virtually the only Swedish port open for foreign trade, a trade that was vital to Sweden.

The Admiralty, the Master of Ordnance, and New Weapons Technologies

Both in Denmark and Sweden, the existential threat caused by war vouchsafed that the interest in new naval technologies continued unabated. This included advances in both shipbuilding and in naval armaments on a vast scale from the sixteenth century onwards.

The introduction of new shipbuilding and naval armament technologies caused the need for efficient means to control and administer existing assets while taking full advantage of any innovations. For the navies of the two countries, the key issue became how to handle the building and maintenance of warships and the provision of suitable and up-to-date weaponry for them. In Sweden, the Admiralty (*Amiralitetskollegium*) was the government office responsible for the Navy's warships as well as shipbuilding. The oldest surviving written source that mentions the Admiralty seems to be from 1618.[6] While it is likely that the function and officers of the Admiralty already existed by then or somewhat earlier, in 1634 a properly constituted organization for this purpose was established.[7]

While the Admiralty held the responsibility for the construction and outfitting of warships, at first lacked resources of its own. Shipbuilding was traditionally led by master shipwrights, who were civilian businessmen who built ships on commission. In addition, by the late seventeenth century, all master shipwrights in Sweden were English, the majority belonging to the Sheldon family.

The situation was different for armaments. These were the responsibility of the Navy's Master of Ordnance (*tygmästare*), a position formally established in 1650.[8] The Master of Ordnance was connected to the Admiralty but not a member of this organization. At first, and still by 1660, the Master of Ordnance was technically subordinated to the Army's Master of Ordnance (*rikstygmästare*) who was in charge of armaments on a national level.[9] In time, however, and certainly by 1689, the Navy's Master of Ordnance acquired a somewhat more independent role, being in charge of all naval planning, production, and procurement of armaments, and the position also became more closely connected to the Admiralty.[10]

The rank and position of the Navy's Master of Ordnance also rose with the added independence. The first Master of Ordnance, an experienced artillery officer named Hans Clerck (1607-1679) upon formal appointment in 1650 received a salary corresponding to his previous rank of artillery captain (645 *dalers*), and this salary remained unchanged until 1659/1660 when it was increased to a pay (1,000 *dalers*) which was higher than that of a major (800 *dalers*) and not much less than the salary of a vice admiral (1,240 *dalers*).[11] Hans Clerck was in 1668 indeed promoted to admiral in charge of the dockyards (*holmamiral*), a title perhaps better translated as director, but carrying the status of an admiral. The rise in stature of the Master of Ordnance became yet more apparent with regard to Clerck's successor. This was Måns Mannerfelt (1619-1674), a major with a naval background who had begun as an ordinary arquebusier but eventually, after several ups and downs, was elevated to noble rank. Mannerfelt was appointed Master of Ordnance in 1668, five years later was promoted to vice admiral (*amirallöjtnant*), but remained Master of Ordnance for another year.[12] Mannerfelt's successor as Master of Ordnance was an artillery captain named Anders Gyllenspak (1620-1695) who, after three years in office, was also promoted to vice admiral, having first survived the loss of the Swedish flagship *Kronan* in the battle off South Öland in 1676.[13] In addition, those masters of ordnance who were not already members of the nobility were, in time, usually raised to noble status.[14] Yet, both an examination of their previous careers (Table 1), and the evidence provided by books and reports written by the various masters of ordnance,[15] give ample evidence to the fact that, first and foremost, these men were professional ordnance specialists. All were appointed because of their technical proficiency. Indeed, they invariably appear to have been capable men who had risen through the ranks, in at least one case (Mannerfelt) from the lowly position of a mere arquebusier. Invariably, they also came from a background that had provided hands-on familiarity with naval artillery and ordnance, in some cases with experience both from the Army and Navy. This was necessary, since the holders of this office were responsible for the practical aspects of maintaining all naval and coastal ordnance, as well as for training the artillerymen of the Navy.

The Admiralty took a keen interest in and remained, through the services of the Master of Ordnance; the ultimate authority on the practicalities of the various armaments used onboard the Navy's warships. This was at a time when fleet commanders often had comparatively little experience with

maritime affairs. Indeed, it could be argued that with regard to weaponry the Admiralty was a far more professional organization than when decisions had to be made on sailing conditions and hull characteristics, since for the latter purpose, civilians were usually relied upon. The creation of the office of Master of Ordnance resulted in both the capability and willingness to experiment with innovations in existing armaments and even new types of weapons, which is evident from the surviving documents from the time already referred to.

The Master Shipwrights and the Karlskrona Naval Base

While the Admiralty took a keen interest in armaments, shipbuilding remained contracted out to private interests. While the masters of ordnance were professional military men, the master shipwrights (*skeppsbyggmästare*) were independent businessmen and civilians. (Table 2). From the establishment of the modern Danish and Swedish navies in the sixteenth century until circa 1660, many expert shipwrights from the Netherlands, Scotland, and England took service with the Scandinavian navies.[16] Their plans and models were regarded as private property. Unlike the masters of ordnance, who were appointed by the Crown, the shipwrights often handed their business down to succeeding generations within the same family. The ultimate indication of the business status of the master shipwrights may be that one of them, an English shipbuilder named Francis Sheldon (c. 1612-1692), who earlier had been a shipwright at the Skeppsholmen naval dockyards in the Swedish capital Stockholm, in 1686-1690 relocated to Sweden's arch-enemy Denmark. There he was appointed master shipwright in Copenhagen. At the same time, his eldest son Francis John Sheldon (1660-1692) served as the master shipwright at the Karlskrona naval dockyards in Sweden. Father and son accordingly were busy building the two navies in Scandinavia that were most likely to go to war against each other.

That the younger Sheldon was at Karlskrona was no coincidence. From 1680 to 1776, the Swedish Admiralty was also housed at the Karlskrona Naval Base, instead of Stockholm. This meant that for all practical purposes, the Navy was commanded and administrated from Karlskrona, not the national capital. This also carried implications for technical developments within the Navy, both with regard to shipbuilding and armaments. The Karlskrona dockyards became central for the management

of a functional fleet of vessels. Karlskrona thus also became the base for the Master of Ordnance. While it took several years for the Admiralty to move all its functions from Stockholm to Karlskrona, the office of the Master of Ordnance relocated to the new naval base as soon as work there was underway. So did the artillery workshops. In Karlskrona, the artillery was first housed in several buildings in the naval base but in the early 1700s moved closer to the dockyards into what came to be referred to as the Artillery Court (*Artillerigården*).[17] An instruction from 1695 stipulates that the Master of Ordnance was in charge of the work of the captain of pyrotechnics (*fyrverkskapten*). A pyrotechnical laboratory existed already before 1709, when it was ordered to be moved.[18] An instruction from 1735 lays down that the Master of Ordnance was responsible for the manufacture of both gun barrel artillery and pyrotechnics, in several designated artillery workshops as well as a pyrotechnical laboratory.[19] The Master of Ordnance by then also commanded a substantial number of ordnance specialists of various ranks and specialties.[20]

Advances in naval technology except ordnance was, as noted, traditionally the domain of civilian craftsmen. This certainly remained the case with shipbuilding. Before the mid-eighteenth century and the Age of Enlightenment, shipbuilding in Northern Europe was a craft, not a science. It was something known only to the master shipwrights. Knowledge of naval architecture and armaments were then handed down from generation to generation. In the Swedish naval base of Karlskrona, Charles Sheldon (1665-1739) succeeded his brother as master shipwright in 1692, and he was in 1739 in turn succeeded by his son, Gilbert Sheldon (1710-1794).[21] While the Sheldons built ships, professional masters of ordnance, such as the aforementioned Anders Gyllenspak who became the first Master of Ordnance in Karlskrona, and his successors made certain that armaments were up to standards. Gyllenspak was followed as Master of Ordnance by first Johan Leijonfelt (1655-1707), who began his career as an artillery constable and participated in several campaigns on the continent, and among other naval engagements. He took part in the action against the Danes in Kögebukt in 1677.[22] He was followed by Johan Fredrik von Heinen (d. 1711), who began his career as an army field artillery constable.[23] He was followed by Daniel Grundell (d. 1716), Master of Ordnance from 1712 to 1716, who a few years previously had played a prominent role at the newly established artillery school in Karlskrona,[24] and in 1705 had published a training manual for artillery.[25] Then came

Niclas Rudolph von Reichenbach (d. 1749), a lieutenant colonel and reportedly a skilled fortification officer, who served as Master of Ordnance from 1716 to 1748.[26]

The Model Collections

The master shipwrights, and to a lesser extent the masters of ordnance, worked more with finely crafted models than with theoretically based blueprints when designing new projects, and both types of craftsmen shared the empirical knowledge of their craft mainly with others of their kind. The type of models employed by these professionals were gathered in specialist collections, used to illustrate the designs in use when embarking upon new projects, or in the training of apprentices.

In 1752, King Adolf Fredrik of Sweden ordered the establishment within the Admiralty of Models Halls at the naval bases of Stockholm, Karlskrona, and Gothenburg. The models should illustrate "all approved models, both with regard to ships and galleys and also several artifices" so that they could be used in the practical work at the naval dockyards.[27] These ship models collections were used by the shipwrights, while the corresponding artillery models collection, at least in Karlskrona, eventually belonged to the Naval Cadet School there after it was established in 1756. By 1761, the collection consisted of 650 objects, primarily wooden and iron models of artillery ordnance, but also weapons, books, blueprints, and trophies of war. Not all had to do with gun barrel artillery; there was even a model of a fire-ship, a vessel filled with combustibles and explosives, developed with the purpose to drift among enemy ships to destroy them. Such vessels were regarded as artillery ordnance and not ships in the strict sense of the word.[28]

However, the model collections in Karlskrona had already existed for some time. Ship models were almost certainly brought to Sweden by the shipwright Francis Sheldon in 1659, and some of them may have ended up in Karlskrona. None have been individually identified, but ship models dating from the period from approximately 1660 onwards do remain in Swedish collections.[29] It can accordingly be assumed that King Adolf Fredrik's order merely confirmed an already existing practice, and that models collections, possibly private ones such as the one known to be

owned by the Sheldon family, were already instrumental in the work of the naval dockyards.

Whether we deal with shipbuilding or armaments, the willingness to experiment and innovate is obvious from both models and surviving documents. The use of pyrotechnics in the Nordic navies has already been mentioned and continued under the control of the masters of ordnance. The use of rockets in these navies was closely connected to the development of fireworks for more peaceful occasions, yet these were used as weapons and not only for signalling or illumination purposes. They were built to target enemy ships and presumably coastal installations as well.

However, Nordic navies also experimented with chemical warfare. By the early eighteenth century, incendiary shots could be made to generate poison gas by adding certain ingredients. This may be the earliest reference outside China, where such weapons were common, to poison gas being used in naval warfare.

While these innovations were subsequently superseded by developments in gunbarrel artillery that by the late eighteenth century had made pyrotechnics obsolete, surviving early eighteenth-century naval manuals describe, in some detail, these forgotten weapons.

The Manuscripts

Of the two surviving naval manuals devoted to pyrotechnics, rocketry, and artillery, the oldest is Swedish, the second is Norwegian. The Swedish naval manual consists of a handwritten manuscript prepared for a lecture. Under the heading *Om Ernst-fyrvärkeriet* ("About military pyrotechnics") it lists a long series of questions and answers with regard to the Navy's pyrotechnics and artillery. The document is undated but the text clearly indicates that it belongs to the period shortly after 1705. It was written mainly for the education of Navy gunnery constables at the Admiralty. It is currently kept in the Naval Museum (*Marinmuseum*) in Karlskrona, Sweden.

The Norwegian naval manual is a handwritten manuscript with notes from a lecture in 1729 with the heading *Om Lyst og Ernst Fyrverkerier* ("About amusement and military pyrotechnics") kept in the Norwegian Armed Forces Museum library at Akershus fortress (*Forsvarsmuseets bibliotek,*

Akershus Festning) in the Norwegian capital Oslo. The manuscript, which is dated 1 August 1729, forms part of a larger work (*Artilleriet;* "The artillery") about technical aspects of artillery. The pages devoted to pyrotechnics constitute the final 10 out of a total of 49 pages.

While evidence of Nordic naval pyrotechnics thus exists, the nature of the evidence is ambiguous and hard to interpret. Most problematic is that the very term used for these weapons in the Nordic languages—*fyrverkeri* (from German *Feuerwerk,* "fire-work"). The term came to change in meaning several times over the centuries. Originally signifying any artifice employing fire-- including incendiaries, signalling devices, rockets, and indeed guns--by the early eighteenth century the term was mainly used for regular gunbarrel artillery. It was later, apparently in the nineteenth century, when the term came to refer exclusively to the kind of spectacular, recreational pyrotechnics that we today call fireworks. So when references to fireworks occur in early sources, they have to contain very detailed descriptions of materials used and effects achieved. Otherwise, we have little idea of what kind of artifice they are referring to.

Naval Pyrotechnics and Rocketry in the Early Eighteenth Century

Pyrotechnical devices including rockets were regarded as being part of the artillery. The navy also made no real distinction between the various thrown incendiaries and bombs on the one hand and self-propelled rockets on the other. This is obvious from the Swedish naval manual. All these devices were the responsibility of the same artificers. The Scandinavian artillery workshops distinguished between two types of pyrotechnics: military or "serious" (*ernst*) and "amusement" (*lust* or *lyst*) fireworks. The former were designed "to attack or defend oneself against an enemy" and also included "bomb-throwing" while the latter served to produce "such fires that can be used to signal with as well as amusement and artificial fires" according to the Swedish training manual.[30]

Even what was referred to as amusement fireworks also clearly had military applications. Fireworks were used for signalling purposes, as well as for illumination. The pyrotechnical devices were first divided into different types depending on their expected effect and how they were launched. As for effect, they were divided into the first group, those intended to "to crush and destroy as they hit and explode." The second group were items

that would "ignite and burn" what they hit. As for the launch method, they were divided into a group launched by mortars or howitzers like any other heavy bomb or shell. Another group were those items that were thrown by hand (like grenades). A third group was recognized that included items fired from cannon like hollow iron round shot filled with incendiaries (*concavkula*).[31]

Interestingly, the Swedish manual concludes that "today" (that is, in the early eighteenth century) the pyrotechnical devices in use by the Admiralty were all launched by "mortars and howitzers."[32] In other words, by the early eighteenth century, but not before, the weapons of this type that were considered most important by the navy were the incendiary bombs fired from gun barrel artillery. Rockets as offensive weapons were falling out of use and were becoming obsolete as a weapon, especially compared to the use and development of gun barrel artillery, which was growing increasingly accurate and devastating in firepower.

There are surviving specimens of naval rockets. Several have been preserved in the Naval Museum in Karlskrona, of an unknown date. Judging from surviving illustrations and other references they probably date from the early eighteenth century. As noted, before 1709 and likely before the end of the late seventeenth century, a pyrotechnical laboratory formed part of the Artillery branch at the Karlskrona Naval Base. Several tools and parts for the manufacture of rockets of various sizes now remain in the museum. A drawing in the Karlskrona Naval Museum probably by Daniel Grundell, who was Master of Ordnance in Karlskrona from 1712 to 1716, illustrates the manufacture of rockets in this laboratory.[33]

Even so, there are two key difficulties in assessing the military use of rockets and other pyrotechnics in this period. First, most contemporary books, and indeed most eyewitness descriptions, make little or no distinction between military rocketry and civilian firework displays for amusement. Second, those that deal with specifically military rockets treat this topic as part of the general use of artillery. Rockets are not always easily distinguished from incendiaries, which are not rocket-propelled nor indeed regular gun barrel artillery. Certainly the Swedish manuscript *Om Ernst-fyrvärkeriet* (which perhaps was written or at least inspired by the aforementioned Grundell, who certainly was familiar with pyrotechnics and rocketry[34]) makes no distinction between the topics. After a section on

pyrotechnics, the manuscript goes on to devote the bulk of its questions and answers to artillery proper. This implies that rockets and other types of pyrotechnics and incendiaries were still used in the Scandinavian naval arsenals, but that proper gun barrel artillery by the early eighteenth century, and probably already before this time, was regarded as far more important.

The 1729 Norwegian naval manual accentuates this trend. The subject of naval pyrotechnics still formed a considerable part of the artillery curriculum (a fifth, to be precise), but it was added almost as an afterthought to far more important subject of gun barrel artillery. As noted, the slightly earlier Swedish naval manual took the opposite course; after the section on rockets the remaining text dealt with incendiaries of other kinds, most of which would be launched by gun barrel artillery.

Fireworks in Different Colours for Signalling and Illumination

Although the Swedish and Norwegian manuals show many similarities in content, there are differences that indicate how the naval uses of pyrotechnics were changing. The Swedish manual, for instance, makes it clear that even what was referred to as amusement fireworks definitely had military applications. Fireworks in different colours were then, as far as is known, not yet invented. So fireworks simply resulted in the production of light. Although they could be used for signalling purposes, they were more often intended for illumination. The Norwegian manual, however, describes means to create both blue and red fire, possibilities unknown in the earlier Swedish text.[35] These formulas may be the oldest known references anywhere to fireworks in different colours, which would make the Norwegian manuscript unique in the history of pyrotechnics.

New Types of Illumination shells and Incendiary shells

Another difference between the Swedish and Norwegian naval manuals is that the later, Norwegian text puts a greater emphasis on incendiary bombs fired from gun barrel artillery. Examples include the illumination shot (Swedish *lichtkula*, Norwegian *lichtkugle* or *lystkugle*), an incendiary shot designed to illuminate and was fired from a mortar. However, unlike the earlier types of illumination shot,[36] the Norwegian text describes a more modern type of illumination shot, a specially prepared paper or sail canvas cartridge dipped in a mixture of boiling tar and gunpowder. It had a fuse

made of wood, bored out and filled with gunpowder, and cut to the required length so that the charge would burst into fire only when it reached "its greatest altitude."[37] In the same way, the Norwegian manuscript refers to incendiary shot (*brand kugle*). This, however, was not the older hollow iron roundshot filled with incendiaries (*concavkula*), but a mortar-launched, barrel-shaped tubular projectile built up based on an iron frame and covered with a sail canvas bag wrapped and sewn tight around the charge, the finished projectile then being dipped in a mixture of boiling tar and gunpowder.[38]

Chemical Warfare

In addition, the Norwegian manual describes the manufacture and use of smoke shot ("*damp-kugle*"). This was a mortar-launched charge produced in much the same way as the new type of illumination shot, that is, in the form of a sail canvas cartridge dipped in boiling tar and gunpowder, but which produced smoke instead of light.[39] This was not all. The manual points out that the (new) type of incendiary shots could also be made to generate poison gas by adding certain ingredients, including sulphur and quicksilver and several other substances listed in the manuscript.[40] This may be the earliest reference (outside China) to poison gas being used in naval warfare. It certainly pre-dates the suggestion to the British Admiralty in 1812 by Thomas Cochrane, later the Earl of Dundonald (1775-1860), to use "stink vessels" as a form of chemical warfare against the French.[41]

When burned, sulphur produces sulphur dioxide, a poisonous gas the fumes of which would pervade the atmosphere over the affected area. In addition, sulphur is a flammable substance which again would be useful in naval warfare involving wooden ships.

It might be surprising to learn that a Norwegian naval manual from 1729 on pyrotechnics would contain the first Western references not only to naval gas warfare, but possibly to differently-coloured fireworks as well. Yet, something odd seems to have happened when the modern Nordic navies emerged in the sixteenth century. Not only did they grow in size and strength rapidly, their experiments with pyrotechnics indeed led to what can only be described as a Northern European school of naval pyrotechnics, based around the Nordic countries and Russia.

We have already seen that Sweden and Denmark hired expert shipwrights from England. However, Scandinavia produced its own ordnance specialists. England employed Swedish pyrotechnical experts at the same time as Sweden and Denmark hired English shipwrights. By then, Russia too wished to hire Swedish pyrotechnical professionals. It may not have been a coincidence that a Swedish pyrotechnical expert, Martin Beckman (d. 1702), was employed as royal engineer in England. In 1661, he was appointed "fire master with and in His Majesty's fleet." In 1670, he was nominated engineer to the Office of Ordnance. Having participated in several expeditions as a fire master and an engineer, he was knighted in 1685 and later the same year, appointed chief engineer of Great Britain. In 1688, he was appointed "comptroller of fireworks as well for war as for triumph." He thus became the first head of the royal laboratory at Woolwich. From 1692 to 1696, Beckman commanded the ordnance train and bomb-vessels on several naval expeditions primarily against the French. He also designed fireworks for numerous royal celebrations. Yet, Beckman is arguably more famous for apprehending, at some personal risk, Colonel Thomas Blood who attempted to steal the crown jewels from the Tower of London in 1671.[42] As for Russia's interest in Swedish pyrotechnics, the aforementioned Daniel Grundell in 1697, before his employment in Karlskrona, sought service in London, possibly with Beckman, and was thence recommended to the Russian Tsar, Peter the Great. Grundell met the Tsar, who offered him a position as captain of pyrotechnics, but resigned the commission and returned to Sweden.[43]

The Norwegian naval manual ends by noting that it describes only the most common varieties of pyrotechnics, there being many others besides. Yet it would not be possibly to study them all in a mere lecture. In other words, the devices described in the manuscript were not just theoretical concepts. Nor were they vague references to the old lore of forgotten artificers. The descriptions are detailed, and there is little doubt that they were written by and for the craftsmen actually responsible for such appliances. These were tried weapons then in use in the Danish and Norwegian navies. This does not, of course, vouch for their efficiency in combat. Few appear to have remained in use into the nineteenth century. Yet, it would be unwise completely to disregard weapons such as poison gas, even if they never produced large numbers of casualties. The key effect of gas in warfare, then as well as now, was always that of delaying and obstructing instead of killing. No memoirs of sailors who were

confronted with Norwegian poison gas have surfaced during this research, yet it seems likely that the effect was similar to that of the Chinese variety. During the war of 1856-1858 then midshipman, later Admiral, Sir William Kennedy, found himself on the receiving end of similar, but cruder, Chinese missiles, known as stink-pots. He later wrote: "The stink-pot is an earthenware vessel filled with [gun]powder, sulphur, &c. Each junk had cages at the mast-head, which in action were occupied by one or more men, whose duty it was to throw these stink-pots on to the decks of the enemy, or into boats attempting to board; and woe betide any unlucky boat that received one of these missiles: the crew would certainly have to jump overboard or be stifled."[44]

While there is no evidence that Chinese chemical munitions were known in the Nordic countries in the early eighteenth century, Scandinavian naval officers who while in Dutch service had experienced combat with Chinese naval forces and no doubt knew something of Chinese armaments certainly existed. One of them was the Swedish ordnance officer and captain, Balthzar Fredrik Coyet (1651-1728), son of the Dutch East India Company (VOC) governor of Fort Zeelandia on Formosa in 1656-1662, who had lived through the siege in which his father and the Dutch lost Formosa. Balthzar Fredrik Coyet joined the Swedish Navy in 1666 as an artillery constable, became a navy captain in 1675, but resigned in 1678 and, like his father, entered the service of the VOC in the Far East.[45]

The End of Naval Pyrotechnics and Chemical Warfare

Although the various types of pyrotechnics and rockets would seem to have been used more frequently in the sixteenth and seventeenth centuries than later, they were probably never truly decisive weapons in naval warfare, or for that matter on land. In addition, when used by the navy, incendiaries of these various kinds could be equally dangerous to their users as to the enemy. They were, as noted, already becoming obsolete. The use of incendiaries and other types of pyrotechnics, except signal rockets, was for these reasons abolished in the Swedish navy in 1783, as a response to a lethal, self-inflicted fire on the line-of-battle ship Sophia Albertina.[46] Thus ended a long tradition of naval rocketry, at least for some time.

However, the first operational use of the British Congreve rocket in 1806 (at Boulogne) re-launched rocketry as a weapon in naval warfare. Yet the hiatus was significant, for when the authoritative Swedish naval periodical *Tidskrift i Sjöväsendet*, published since 1835 by the Royal Society of Naval Sciences, began to discuss the military uses of rocketry, not a single word was printed on the rocket tradition of previous centuries.

The use of naval chemical warfare of this kind in fact lasted longer. Cochrane in his 1812 Memorial mentions the greater effect of his sulphur vessels in comparison to the "Stink Ball now in use"—hollow containers containing sulphur and other ingredients.[47] These obsolete weapons must have fallen out of use at some point in the first half of the nineteenth century, since in 1856-1858 the much younger Kennedy seems not to have been aware of their former use in Europe when he described similar Chinese weapons.

In other words, pyrotechnics including rockets and early means of chemical warfare grew obsolete as weapons for offensive use, especially compared to regular gun barrel artillery. When no longer useful, such devices were discarded or at least not replenished in the naval arsenals. For the same reason, instruction in these devices was no longer included in the training of naval gunnery officers.

Lessons Learned, Then and Now

By the early seventeenth century, the senior officers of the Swedish navy had concluded that although the navy still could recruit shipwrights and sailing crews among civilians, it would henceforth have to take full responsibility for the continued development of armaments and naval weapons technologies. A new corps of professional ordnance specialists with hands-on familiarity with naval artillery and ordnance were needed. Such individuals were indeed found, sometimes among the enlisted men. All were appointed because of their technical proficiency, and they rose through the ranks so that if these professionals were not already members of the nobility, they were in most cases eventually raised to this position. In addition, the Navy found that it was imperative that its ordnance professionals were Swedish nationals, so that they would not leave to take service with the enemy. Civilian shipwrights could and did change sides. The shipwright Francis Sheldon left Sweden eventually to take service in

Denmark in 1686, while the captain of pyrotechnics Daniel Grundell a decade later declined an offer of service in Russia.

There were several reasons for the Navy to assume control of naval weapons technologies, besides that of ensuring a corps of professional and reliable ordnance specialists was always available. Security of supply of modern armaments was one, to keep the technology under exclusive naval command was another. Most important, however, was the need to ensure access to the most advanced weapons technologies available at the time. Early on this led to the experimentation with, and development of, new types of armament technologies, such as pyrotechnics, rockets, and even chemical warfare. These weapons systems were taken into service and used until the late eighteenth century when regular gun barrel artillery had developed into comparatively more efficient offensive weapons.

By the late eighteenth century, most of these various types of pyrotechnics had grown obsolete. No longer regarded as useful, the stores of such devices were no longer replenished in the naval arsenals. Naval gunnery officers were no longer trained in their use. Young naval officers such as Sir William Kennedy, if they ever heard of such pyrotechnics, regarded their use as something characteristic of third-world navies. The knowledge of, and skills in, obsolete weaponry generally disappears fast in a professional military organization, often within only one or at most two generations. In the nineteenth century, these types of pyrotechnics met the same fate as the naval rating's cutlass did in the twentieth century. Ultimately, even the knowledge and memory of their existence disappeared from the collective mind of serving sailors. Until the two naval manuals from the early eighteenth century emerged out of obscurity to reveal their information on the subject of early modern naval pyrotechnics, that is.

Although technologies have changed since the establishment of the Swedish Admiralty and the Navy's Master of Ordnance, two key reasons for their establishment have remained important into modern times. First, a navy cannot afford to lose ground in technological developments and innovation, unless it no longer expects to be called out for active service again, ever. There is no guarantee that the private sector will be able to fulfil its ordnance requirements. Second, a navy needs experienced and properly educated ordnance specialists. Theirs is not a subject generally taught in civilian academic institutions, and despite the existence of

private-sector military firms, there is no certainty that the private sector can supply such individuals when they are needed. The relationship is rather the opposite, since private-sector military firms depend on the availability of already trained military professionals—from the armed forces, not the private sector. The lesson to be learned, and presumably the one that the Navy's first Master of Ordnance, Hans Clerck, would propose if he were here today, is that a navy that does not stay at the forefront of technical innovation, and neglects to train professionals in the use of modern weapons technologies, eventually will lose its ability to function.

Table 1. Masters of Ordnance in Sweden, 1650-1761

1. Hans Clerck (1607-1679). An artillery officer appointed the first Master of Ordnance. Upon formal appointment in 1650 he received a salary corresponding to his previous rank of artillery captain (645 *dalers*), and this salary remained unchanged until 1659/1660 when it was increased to a pay (1,000 *dalers*) which was higher than that of a major (800 daler) and not much less than the salary of a vice admiral (1,240 *dalers*).[48] Hans Clerck was in 1668 promoted to admiral in charge of the dockyards (*holmamiral*).

2. Måns Assarsson Mannerfelt (1619-1674). A major with a naval background, who had begun as an ordinary arquebusier but eventually, after several ups and downs, was elevated to noble rank. Appointed Master of Ordnance in 1668, in 1673 was promoted to vice admiral (*amirallöjtnant*), but remained Master of Ordnance for another year.[49]

3. Anders Eriksson Gyllenspak (1620-1695). Artillery captain. Appointed Master of Ordnance in 1674. Served as master of ordnance on the flagship *Kronan* in the battle off South Öland in 1676 against a Danish-Dutch fleet, and was one of the survivors when *Kronan* was lost in the battle. First Master of Ordnance in Karlskrona Naval Base and remained in this post until 1690. Promoted to vice admiral (*amirallöjtnant*) already in 1677.[50]

4. Johan Wilhelm Leijonfelt (1655-1707). The son of an admiral, he began his career as an artillery constable, participated in several campaigns on the continent, and among other naval campaigns, took part in the action against the Danes in Kögebukt in 1677. Served as master of ordnance on

various flagships, including in 1679, 1688, and 1689. Appointed Master of Ordnance in Karlskrona in 1690 and remained in this post until 1707.[51]

5. Johan Fredrik von Heinen (d. 1711). Began his career in 1687 as an army field artillery constable. Appointed pyrotechnics captain at the Admiralty in 1696, then artillery captain in 1698. Appointed Master of Ordnance in 1707 and served in this capacity until his death in early 1711.[52]

6. Daniel Grundell (d. 1716).[53] Admiralty artillery constable in 1696. In 1697, before his employment in Karlskrona, Grundell sought service in London, possibly with his fellow Swede, Sir Martin Beckman, and was thence recommended to the Russian Tsar, Peter the Great. Grundell met the Tsar, who offered him a position as captain of pyrotechnics, but resigned the commission and returned to Sweden. In 1700, Grundell served at the newly established artillery school in Karlskrona.[54] In 1705, he published a training manual for the artillery which was well received.[55] Master of Ordnance in Karlskrona from 1712 to 1716. Served as master of ordnance on the flagship in 1710-1712.[56]

7. Niclas Rudolph von Reichenbach (d. 1749). Lieutenant colonel and reportedly a skilled a fortification officer. Served as Master of Ordnance from 1716 to 1748.[57]

8. Karl Gustaf von Schantz (1682-1753). Former field artillery officer, appointed pyrotechnics captain at the Admiralty in 1715. Promoted to major in 1743. Master of Ordnance from 1748 to 1753.[58]

9. Olof Tornquist (d. 1754). Began his naval career in 1709. Constable in 1728. Artillery captain in 1749. Master of Ordnance from 1753 to 1754.[59]

10. Lorenz Niklas Richter (d. 1755). Artillery captain. Master of Ordnance from 1754 to 1755.[60]

11. Jacob Tornquist (d. 1761). Son of Olof Tornquist. Naval career in the artillery. Master of Ordnance from 1755 to 1761.[61]

Table 2. Master Shipwrights in Sweden[62]

1. Francis Sheldon (c. 1612-1692). An English shipwright who arrived in Sweden in 1659. From 1666 to 1672, he was a shipwright at Skeppsholmen dockyards in Stockholm. From 1686 to 1690, he was the master shipwright in the Danish capital Copenhagen.

2. Robert Turner (d. 1686), an English shipwright. Worked at the Skeppsholmen dockyards in Stockholm from 1673 to 1679, and in the Karlskrona dockyards from 1680 until his death in 1686.

3. Francis John Sheldon (1660-1692), eldest son of the aforementioned Francis Sheldon. Worked at the Karlskrona dockyards from 1686 to 1692.

4. Charles Sheldon (1665-1739), master shipwright from 1692 to 1739. Brother of the aforementioned Francis John Sheldon and his successor as master shipwright at the Karlskrona dockyards.

5. Gilbert Sheldon (1710-1794). Son of the aforementioned Charles Sheldon and his successor as master shipwright at the Karlskrona dockyards.

Illustrations

Figure 1. The Battle off South Öland in 1676 between a Danish-Dutch and a Swedish fleet, in which Anders Gyllenspak, the first Master of Ordnance in Karlskrona, was one of the survivors from the lost Swedish flagship *Kronan*.

Figure 2. The Battle in Kögebukt in 1677 between a Swedish and a Danish fleet, in which the future Master of Ordnance Johan Leijonfelt participated.

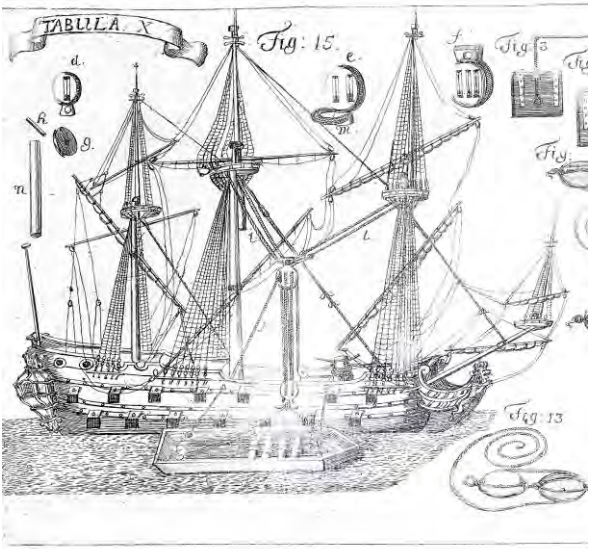


Figure 3. The outfitting of a ship with guns, as illustrated in the future Master of Ordnance Daniel Grundell's 1705 book *Nödig underrättelse om artilleriet till lands och siös*.

Figure 4. Artillery at sea and on land, as illustrated in the future Master of Ordnance Daniel Grundell's 1705 book *Nödig underrättelse om artilleriet till lands och siös*.

Figure 5. The manufacture of rockets in the Karlskrona pyrotechnical laboratory (drawing in the Karlskrona Naval Museum probably by Daniel Grundell), c. 1700-1716.

[1] Already in 2000, the government of Puntland, which emerged from Somalia, contracted out its coastal patrol to a British firm, the Hart Group. In the South China Sea, private firms such as Trident were already contracted to take on anti-piracy duties. P. W. Singer, *Corporate Warriors: The Rise of the Privatized Military Industry* (Ithaca, New York: Cornell University Press, 2003), 11, 14.

[2] On the early modern Danish and Swedish navies, see Jan Glete, "Naval Power and Control of the Sea in the Baltic in the Sixteenth Century," John B. Hattendorf and Richard W. Unger (eds), *War at Sea in the Middle Ages and Renaissance* (Woodbridge, Suffolk: Boydell Press, 2003), 217-32, on 221-5, 227-8, 230, 232. On their pyrotechnics and rockets, see Michael Fredholm, "On the Trail of Rocketry: The Enigma of Scandinavian Naval Pyrotechnics in the Sixteenth to Eighteenth Century," *Arquebusier* 30:6 (2008), 24-39.

[3] Jan Glete, *Navies and Nations: Warships, Navies and State Building in Europe and America, 1500-1860* (Stockholm: Almqvist & Wiksell International, Stockholm Studies in History 48, 1993, 2 vols.), 551, 576, 597, 608, 640, 654.

[4] Glete, *Navies and Nations,* 597, 608, 654.

[5] Ibid.*,* 551, 577, 640.

[6] S. Artur Svensson (ed), *Svenska flottans historia: Örlogsflottan i ord och bild från dess grundläggning under Gustav Vasa fram till våra dagar* (3 vols.; Malmö: Allhem, 1942-1945), vol. 1: 1521-1679, 311.

[7] Einar Wendt, *Amiralitetskollegiets historia* I: 1634-1695 (Stockholm: Lindberg, 1950), 34.

[8] Wendt, *Amiralitetskollegiets historia* I, 84.

[9] Wendt, *Amiralitetskollegiets historia* I, 195; Einar Wendt et al., *Amiralitetskollegiets historia* II: 1696-1803 (Malmö: Allhem, 1974), 283-4.

[10] Wendt et al., *Amiralitetskollegiets historia* II, 297.

[11] Wendt, *Amiralitetskollegiets historia* I, 162-3.

[12] Ibid., 195.

[13] Ernst Holmberg, "Tygmästare vid Karlskrona örlogsstation i äldre tider," *Tidskrift i Sjöväsendet* 1920 (Karlskrona, 1920), 473-89, on 473; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[14] See, e.g., *Svenskt Biografiskt Lexikon* (s.v. Clerck).

[15] See, e.g., Daniel Grundell, *Nödig underrättelse om artilleriet till lands och siös, så wäl till theoriam, som praxin beskrifwen, och med nödige kopparstycken förklarad* (Stockholm: Olof Enæus, 1705). Written before Grundell's appointment as Master of Ordnance, this treatise on the theory and practice of army and naval artillery became a widely used text book for the training of artillery officers, both within the Army and Navy. Grundell was then artillery captain of the Admiralty Artillery (*Ammiralitets Artillerie*) in Karlskrona.

[16] Jan Glete, "Örlogsfartyg, flottor och flottbaser," *Stormakten som sjömakt: Marina bilder från karolinsk tid* (Lund: Historiska Media, 2005), 15-20, on 18.

[17] Stefan Flöög, *Handeldvapen och artilleri 1680-1860: Örlogsflottan under segel* (Karlskrona: Marinmuseum, 1999), 26-9.

[18] Wendt et al., *Amiralitetskollegiets historia* II, 297.

[19] Ibid., 299-300.

[20] In 1735, the ordnance department in Karlskrona Naval Base consisted of 1 master of ordnance (*tygmästare*), 1 pyrotechnics captain (*fyrwerkarkapten*), 2 artillery captains (*artillerikapten*), 2 artillery lieutenants (*artillerilöjtnant*), 36 constables or senior non-commissioned artillery officers (*constapel*), and 43 junior non-commissioned artillery officers (*archelie-mästare*). In Stockholm Naval Base, there

were 1 artillery captain, 1 artillery lieutenant, 18 constables, and 24 junior non-commissioned artillery officers. In the much smaller Gothenburg Naval Base, there were 1 artillery lieutenant, 4 constables, and 6 junior non-commissioned artillery officers. Wendt et al., *Amiralitetskollegiets historia* II, 314.

[21] See, e.g., *Svenskt Biografiskt Lexikon* (s.v. Sheldon); Jan Glete, "Sheldon, af Chapman och de svenska linjeskeppen 1750-1800," Emma Having (ed), *Marinmuseum: Modellkammaren 250 år-ett marinmuseums födelse* (Karlskrona: Axel Abrahamsons Förlag, 2002), 18-31, on 20.

[22] Holmberg, "Tygmästare vid Karlskrona," 474; S. Artur Svensson (ed), *Svenska flottans historia: Örlogsflottan i ord och bild från dess grundläggning under Gustav Vasa fram till våra dagar* II: 1680-1814 (Malmö: Allhem, 1945), 84; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[23] Holmberg, "Tygmästare vid Karlskrona," 474-5.

[24] Wendt et al., *Amiralitetskollegiets historia* II, 285, 313.

[25] Grundell, *Nödig underrättelse om artilleriet.*

[26] Holmberg, "Tygmästare vid Karlskrona," 478-9; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[27] Emma Having, "Karlskrona skeppsmodellkammare: Modellkammaren som företeelse och källmaterial," Emma Having (ed), *Marinmuseum: Modellkammaren 250 år-ett marinmuseums födelse* (Karlskrona: Axel Abrahamsons Förlag, 2002), 44-57, on 45; citing a royal letter dated 22 April 1752 (*Kungl. brev, Amiralitetskollegium kansli, Krigsarkivet*).

[28] Thomas Roth, "Svenska artillerimodellsamlingar," Emma Having (ed), *Marinmuseum: Modellkammaren 250 år-ett marinmuseums födelse* (Karlskrona: Axel Abrahamsons Förlag, 2002), 58-65, on 59, 62; Emma Having (ed), *Marinmuseum: Modellkammaren 250 år-ett marinmuseums födelse* (Karlskrona: Axel Abrahamsons Förlag, 2002), 109; Jenny Rosenius (ed), *Marinmuseum: Tapperhet, ömhet, manlighet & dygd* (Karlskrona: Marinmuseum, 2007), 18-20. These refer to an inventory by then newly appointed Master of Ordnance Henrik von Schantz dated 14 April 1761.

[29] Jan Glete, "Arvet från flottans modelkammare," *Sjöhistorisk Årsbok* 1990-91 (Stockholm: Föreningen Sveriges Sjöfartsmuseum i Stockholm, 1990), 9-44, on 22-23.

[30] *Om Ernst-fyrvärkerie* , §2.

[31] Ibid., §3.

[32] Ibid., §9, §10.

[33] Flöög, *Handeldvapen och artilleri,* 20-21.

[34] In his 1705 book on artillery, Grundell provides references to two of the most important treatises on rocketry at the time, the *Artis magnae artilleriae* ("The Great Art of Artillery") of Casimir Siemienowicz (Simienowicz) published in Amsterdam in 1650, which was translated into several languages (into French in 1651, German in 1676, and Dutch and English in 1729) and achieved widespread attention, and Hanzelet Lorrain's *La pyrotechnie* ("Pyrotechnics") published in 1630 (Hanzelet Lorrain, *La pyrotechnie* (Pont à Mousson, 1630); Lorrain was the pen name of Jean Appier). A copy of the German edition of the first work (Casimir Siemienowicz, *Vollkommene Geschütz- Feüerwerck- und Büchsenmeisteren-Kunst* (Frankfurt am Main: Johann David Zunner, 1676), with new materials by Daniel Elrich) is still kept in the Karlskrona Naval Museum and is believed to have been used in the pyrotechnics laboratory of which Grundell was the head.

[35] *Om Lyst og Ernst Fyrverkerier,* §102, 103. Whether these were true innovations remains uncertain. Modern fireworks in different colours rely on the use of chlorine, a method which was not invented until the late eighteenth century and then in Napoleonic France. The Norwegian text describes earlier methods, known since at least the sixteenth century. Personal communication from Lars Hoffmann Barfod, a leading authority on pyrotechnics, 14 January 2010.

[36] Fredholm, "On the Trail of Rocketry," 32, with Fig. 8.

[37] *Om Lyst og Ernst Fyrverkerier,* §97, 112-114.

[38] Ibid.*,* §108-111.

[39] Ibid.*,* §115.

[40] Ibid.*,* §117.

[41] On poison gas in naval warfare in China, see Michael Fredholm, *Eight Banners and Green Flag: The Army of the Manchu Empire and Qing China, 1600-1850* (Farnham, Surrey: Pike and Shot Society, 2009), 109-110. On Cochrane, see Charles Stephenson, *The Admiral's Secret Weapon: Lord Dundonald and the Origins of Chemical Warfare* (Woodbridge, Suffolk: Boydell, 2006).

[42] *Dictionary of National Biography* (London: Smith, Elder, & Co., 1901), s.v. "Beckman, Sir Martin."

[43] Holmberg, "Tygmästare vid Karlskrona," 475.

[44] Sir William Kennedy, *Hurrah for the Life of a Sailor! Fifty Years in the Royal Navy* (Edinburgh: William Blackwood and Sons, 1900), 47.

[45] *Den introducerade svenska adelns ättartavlor* (Stockholm: Norstedt & Söner, 1926), s.v. Coyet (Tab. 28). In 1696, Balthzar Fredrik Coyet became governor of the Banda Islands, where his father Frederik Coyet (or Coyett, 1620-1689) had once been imprisoned. The younger Coyet ended his career as Governor-General in Batavia, where he also died.

[46] Wendt et al., *Amiralitetskollegiets historia* II, 312 with note p.330, citing an official letter (*skrivelse från generalamiralen*), dated 4 September 1783, which reached the Artillery Department at Karlskrona five days later (*Örlogsvarvet i Karlskrona, artilleridepartementet, ank. skr. 9 sept. 1783*). Rockets of an unidentified type remained in use in the Navy in 1787, when a total of 132 rockets were available, at a time when the perceived need of rockets was estimated to be 612 ("16-lödiga Raquetter, 1-pdiga och 2-pdiga D^{o}: Behov 612, Tillgång 132"). Ibid., 323.

[47] Stephenson, *Admiral's Secret Weapon,* 28.

[48] Wendt, *Amiralitetskollegiets historia* I, 162-3.

[49] Wendt, *Amiralitetskollegiets historia* I, 195.

[50] Holmberg, "Tygmästare vid Karlskrona," 473; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[51] Holmberg, "Tygmästare vid Karlskrona," 474; Svensson, *Svenska flottans historia* II, 84; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[52] Holmberg, "Tygmästare vid Karlskrona," 474-5.

[53] The ordnance specialists typically came from a similar background and in many cases must have known each other for years. Grundell may have been related to one or both of the two half-brothers Simon Grundel-Helmfelt (1617-1677), an army artillery officer who eventually was promoted to field marshal, and Jacob Grundell (1657-1737), who ended his army career as a baron (*friherre*) and major general. The upwardly mobile social ranks and careers of these officers make this a distinct possibility. Grundell was married to Emerentia Leijonfelt, who likewise may have been a relation of an earlier master of ordnance, Johan Leijonfelt. Sadly, the time available for researching this paper has not allowed an investigation into these genealogical issues which might be one explanation why a young officer at the time chose a career within the artillery.

[54] Wendt et al., *Amiralitetskollegiets historia* II, 285, 313.

[55] Grundell, *Nödig underrättelse om artilleriet.*

[56] Holmberg, "Tygmästare vid Karlskrona," 475-8.

[57] Holmberg, "Tygmästare vid Karlskrona," 478-9; Wendt et al., *Amiralitetskollegiets historia* II, 285.

[58] Holmberg, "Tygmästare vid Karlskrona," 479-80.

[59] Ibid., 480-82.

[60] Ibid., 482.

[61] Ibid., 482-6; Wendt et al., *Amiralitetskollegiets historia* II, 285, 307, 315.

[62] See, e.g., *Svenskt Biografiskt Lexikon* (s.v. Sheldon); Glete, "Sheldon, af Chapman och de svenska linjeskeppen," 20.

In Search for Proper Small Nation's Officer Training System: The Experiences of Interwar Estonia

By Andres Seene[*]

In 2009 ninety years had passed since the establishment of the Military School of the Republic of Estonia in 1919. This event marks the beginning of national officer training in Estonia.

Although native Estonians were prepared and commissioned in growing numbers in the Czarist Russian Imperial Army, first starting in the 1860s and then on a large scale during World War I, the formation of a new Estonian national state and armed forces required the creation of a totally new system for preparing officers suitable to be the officers in a small state forces.

During the following twenty years after 1919 the established institutions of military training influenced and shaped the mental formation of thousands of young educated Estonians in the patriotic-martial spirit and also with a consciousness oriented towards the whole nation and its leaders. Although the established system and many of its mentors, and mental legacy were destroyed by the Soviet occupation authorities after 1940, many of the Estonian Military School graduates, as military leaders, did not remain bystanders during World War II. They would personify the aspirations and choices of the Estonian people and take part in the difficult mission of leading Estonia through another war.

Although a new program of national officer training after independence was regained in the 1990s had to start from scratch and in a very different social environment, the study of the national military experience is still important. Along with developing tradition and building knowledge a study of the past helps one to understand the importance of having a long term personnel planning program and developing a balanced educational solution to meet the needs of a small nation that faces a changing social and educational environment.

[*] Estonian National Defence Academy

In the two decades that followed the War of Independence (1918–1920) one can see the serious attention that the Estonian armed forces paid to finding suitable solutions for the selection of subalterns and for preparing officer cadets. The time that the Estonian national officer corps was first formed was also the moment that saw some major new developments in officer education in other nations.

In the pre- World War I view the best approach for a small state like Estonia was to rely on the great power model for determining the organization of the armed forces — three or four peacetime divisions, a navy, coastal fortresses, and an air force — all backed up by reserve forces for a mass mobilization capability. This meant that from Estonia's World War experience, and the experience of other nations, in the post-war world there was a large number of reserve junior officers. An improved training program to prepare them for modern combat conditions was required. A nation's success in this process depended on how effective it was in finding a balanced solution that could combine several features and incorporate the social, educational and practical professional training possibilities.

As early as 1922 the head of Defence Forces Teaching Committee, Colonel Nikolai Reek, wrote in one of his many published articles about the primary importance of having a sound military cadre of officers and NCOs. Because of the nature of the Estonian character, which he described as being highly critical and demanding towards superior leaders, Estonian leaders would require careful training. According to Reek's analysis, it was not sufficient to have a uniform, a rank and a formal position to be an acknowledged military leader of Estonians and receive the respect and obedience from one's subordinates. Reek argued that Estonians demanded common sense as well as knowledge and skill from their leaders. He admitted that any military leader had to be very strict with himself to deal with Estonians.[1]

At the time it was estimated that a nation capable of mobilizing a 100,000-man armed forces needed at least 5% of the total force to serve as an officer cadre if such a force was to have effective leadership. In Estonia's case this meant 5000 leaders.[2] Yet, during the War of Independence in mid-1919 there were little more than 1000 officers in service of Estonian Peoples Army's frontline units.[3]

The experience of having a serious leader shortage in the period of heavy combat meant that the armed forces commanders were well aware of the importance of qualified and well trained officer personnel. It was clear that in case of war Estonia would have numerically far smaller defence force than the likely adversary. As the history of warfare showed, a highly qualified and capable officer corps possessing good leadership qualities could counterbalance an enemy's numerical and material superiority. Therefore it was deemed absolutely necessary by the armed forces leadership that small nation like Estonia should have a well-prepared armed forces leadership — certainly better trained than the leaders of the possible enemy. Highly qualified officers were needed to provide a successful resistance against a larger number of enemy troops equipped with superior armament in wartime. Although this principle of attaining a high level of leadership quality was not laid down in a single document or written doctrine, it is possible to find this view stated in several publications of the period.[4]

The following article will attempt to describe some basic features of the junior officer preparation system, the principles of its formation and its development in interwar Estonia (1919–1940). In this connection the development of the general training and educational orientation institutional and curriculum development of the regular and reserve officers are examined and the principles of personnel planning, foreign and social influences are assessed. The article is structured chronologically and will focus on the more important changes that affected the development of the military leaders' personnel planning and training system.

The Period of Foundation: the War of Independence 1919–1920

As it is generally known, the lack of officers on all levels of command was seriously felt in the Estonian Peoples Army during the War of Independence. At this time the company organization was fixed so that, in addition to the company commander position, there were one senior officer position and two to three junior officer posts in a company. To meet the needs for filling the posts of company junior officers, the warrant-officer rank was introduced. During the war those more educated non-commissioned officers who had shown bravery in combat were promoted to warrant officer rank, although most of them lacked proper NCO training. According to some estimates there were one to two

warrant-officers in service in every company by the end of the War of Independence. NCOs were also appointed to platoon commander posts.[5]

At the end of March 1919 the Commander-in-Chief Major General Johan Laidoner proposed to the Minister of War that a military school for officer preparation be established. His proposal described the state of the army as a crisis, as the whole front was held by only around 20 or so experienced officers whose numbers were likely to decline as the hostilities continued. Therefore, it was necessary to form the officer school for strengthening the fighting power at the front.[6] The Military School of the Republic of Estonia was officially founded by the order of the Commander in Chief on April 3, 1919. According to the command of the day the school was opened on April 22, 1919. In his speech at the opening ceremony of the school the Commander-in-Chief emphasized that there was no more old Imperial Army and that the firmness of the democratic state's armed forces should be based on mutual understanding and friendship between soldiers and officers.

The Military School was located in Tallinn and was immediately subordinated to the direction of undersecretary of the Minister of War. There was one infantry cadet company (120 cadets), one cadet battery (two platoons – 50 cadets) and one cadet cavalry platoon (25 cadets) foreseen in the school organization. As it was also an all-arms school, it was also divided by study organization into classes.

The curriculum of the school was adapted to the principles of the former Russian reserve officer (war-time officer—the so-called ensign school) program. The subjects taught in first class were tactics, topography, fortification, trench making, machine guns, artillery, former Russian military laws and instructions, Estonian language, health care and sports. In the cavalry and artillery branch classes appropriate subjects were taught thoroughly (horse care, riding, ballistics, artillery tactics, and so on). In the infantry course it seems that drill training was the dominant part of the program. For the most part the training copied pre-war Russian principles and methods, for instance instructions, which were out of date in the new environment of warfare. The surviving records indicate that there was only one small tactics manual available as a teaching aid in the Estonian language, and it was composed by the inspector of classes. The lecturers were officers and civilian experts, many of whom worked in the central

military institutions in Tallinn and could not devote enough time to their pedagogic duties. There were no fixed syllabi and programs, and lecturers were left with little direction in developing their teaching.[7]

Of the first infantry course – 106 graduates were promoted to officer rank (ensign) on August 3, 1919 after a little more than three months of training. The cavalry cadets (25 graduates) were promoted on September 15, 1919 and from the artillery course (57 graduates) were promoted on October 5. After the graduation of the first classes the second course was formed. Now the Cadet (infantry) Battalion was formed (consisting of 2 companies), the cavalry and artillery study formations remained at their previous limits. With the end of hostilities on the fronts, the second course was prolonged. In late autumn of 1919 the Naval Class of the Military School was also formed.[8] The foundation of the Estonian Military School during the War of Independence can be viewed as one aspect of the whole rear organization process. Its first graduates could not entirely satisfy the general lack of junior officers. However, the foundation of the school did raise the self-confidence and morale of the forces, cultivated national identity, and secured domestic morale in the capital. Despite the contrast between an outdated and insufficient military education system and that of the real nature of warfare in the War of Independence, the cornerstone of the nation's military education was still laid down.

The Period of Institutional Consolidation: 1921–1923

Starting in the autumn of 1920, the war-time organization and program of the Military School was cancelled by the orders of the Minister of War. The new peace-time program for preparing regular officers was first expanded to a two-year course. Candidates for the infantry and cavalry courses were expected to have graduated from the sixth grade of secondary school (the artillery course candidates had to have full secondary school course with diploma). However, it soon became obvious that there were not enough candidates with a sound educational background. Therefore in 1921 the Military School organization was changed again with the law of August 1921.[9] In order to recruit cadet material the school was now opened for students who had not completed secondary education (for those who had completed the only the first six grades). A general class was formed for the cadets where all necessary subjects for obtaining full secondary school (gymnasium) diploma were offered. After the graduation

of the general class the junior and senior cadet classes then followed, and the duration of each of these classes was one year. The regular officer course for those with an incomplete general education thus lasted three years.

In the beginning of 1922 a reserve officer class was opened in the Military School. Conscripts with full secondary school education or higher education were accepted into this class. In 1923 the law was enacted that stipulated the foundations for reserve officer preparation.[10] Under this new law the student of Military School reserve officer class was named as an *Aspirant*[11] (Aspirants Class of the Military School). The first aspirant classes were, however, not very large in numbers, with 15 to 30 aspirants per course between 1923–1925.[12]

Several military educational institutions were founded after the War of Independence (1918–1920). In 1920, the Non-Commissioned Officers School was established in Tallinn. Besides the Military School, the Navy School operated during 1920 and 1923. In 1921 general staff courses were started at a higher military level (named as the Higher Military School in 1925).[13] On March 11, 1920 the Commander-in-Chief approved the new staff of the Military Technical Courses, specifying the departments (small arms, artillery, pyrotechnics, motor vehicle, radio, telegraph, electrical engineering). On July 10, 1920 the Military Technical Courses were renamed as the Military Technical School by the order of the Minister of War Number 644.[14]

As the above-mentioned schools were established at the end of the War of Independence or immediately after the war, their structure and general objective did not fully comply with the peace-time objectives. The main aim of the army conversion during the transitional period to peacetime was to save money. Later it was admitted that in some respect there was too much economy. Later assessments have justified the closure of the Military Technical School by the excessive size of its administration and the number of classes (seven classes). For example, there were only five students in some classes taught by an officer or an engineer serving as a battalion commander. The decision to close the Military Technical School in its initial form or to reorganize it was made by the Ministry of War in 1921, but it was not executed until the first year of students graduated

(1923). At the same time opportunities for joining the Military Technical School with the Military School were being discussed.

Both the Military School and the Military Technical School were subjected to the Commander of Military District (garrison troops, military schools, and special facilities in and around capital area) and the formation commanders were appointed with Nikolai Reek (1921–1923), the Colonel of General Staff, serving as the Inspector of the Military Schools. This attempt at establishing a Joint Military School ended in founding the Joint Military Educational Facilities (Estonian: *Sõjaväe Ühendatud Õppeasutused*), by the decree of the Government of the Republic in August 29, 1923. The former General Staff Courses (Military Academy), the Military School and the Non-Commissioned Officers School that had functioned independently were united.[15] The provision of education was centralized under one commander with the aim of ensuring single training and reducing the staff of units (especially finance and administrative staff). Thus the organizational convergence of the units for training military leaders was accomplished, but the understanding of the training purpose and methodology was limited and a systemic focus was lacking. Many former higher officers and civilians of Russian background who had taught in Imperial Russian military academies prior to Russian civil war were hired and now formed the teaching staff of the Estonian military schools. Though they were proficient in their specialty fields, their approach to learning was considered too theoretical, especially in the field of tactics where lectures were the dominant method and too much emphasis was placed on the tactics of large formations (army corps, divisions) — subjects that were unnecessary for junior leaders in small state conditions. Many of the subjects were taught in Russian. However, the use of older lecturers with a Russian background was seen only as a temporary solution because this hindered the development of a military terminology in Estonian. In addition, the teaching of the Russian language was soon considerably decreased in the secondary school programs.

In Search for New Principles and Methods: 1923–1927

After the initial assignment of officers to units some problems in the preparation of the newly commissioned officers became obvious. It became evident that the preparation was too theoretical, and as for those who entered the Military School no prior troop service or basic training was required. Therefore, the newly commissioned graduates generally tended to be quite inexperienced when they began service with the troops. As a result it appears that many officers soon resigned from the service because they were not ready to face real service conditions. The condition of the officer training program was often criticized in press. Some criticism was directed against the foreign lecturers. Another criticism was that senior officers who had opted to go to Estonia after the peace settlement with Soviet Russia and had received high positions in the military training institutions without having taken part as leaders in the war for national liberation. Other critics, however, pointed out deficiencies in training methods. The urgent need for change in training methods was quickly acknowledged in the armed forces leadership, but to make changes in a practical sense would require a new approach and a fresh teaching cadre.

Following the Western European experience, notably from the French Higher Military Schools, pedagogical reforms were introduced in the general military training system by Colonel (later Major-General) Reek in 1927–1928. The amount of theoretical lectures was reduced drastically and emphasis on practical independent work grew. The importance of practical troop service for cadets was stressed by Reek and he used the example of the German Reichswehr officer training model, where each future officer had to undergo longer service and practice the duties of both enlisted men and NCOs.[16] Under the special law passed in the spring of 1927 the 5-month conscript service was required for those men interested in entering the Military School as cadets.[17] Still, this principle did not enter into practice before 1928–1929. Up to 1926 the reserve officer course the recruit training was organized as the first part of the whole course of the Military School. After 1926 the five-month long recruit and NCO training was carried out in troop and training units. The overall length of the course was 11 months. The platoon commander's theoretical preparation was organized in Military School after which the 7–8 month long leadership practice followed in units (until the end of their compulsory service period-- altogether 18 months). Starting in 1924 the artillery reserve

officer class was organized, at the same time cavalry and engineer reservists got their preparation together with infantry course.[18]

Following the reforms of 1927–1928 the subject of tactics was adapted more to Estonian conditions (human resources and landscape). The importance of small unit (platoon, company) tactics was emphasized, for instance principles of active defence in case of long frontlines and small forces with formation of stronghold systems, retreat, combat operations in wooden areas were underlined.[19]

The Military School organization consisted in the given period of Cadet battalion, which was formed of Cadet company, battery, Technical company (one platoon), Naval platoon and Aspirants (reserve officer) platoon. Under the Military School organization the Regular Officer Course was formed in 1920 (since 1923 the courses functioned independently under the structure of the Joint Military Educational Facilities). The officers (mostly in rank of lieutenant and captain) who graduated from the Russian Ensign School four-month course during World War I had to go through this 11 month long mostly theoretical course for obtaining the right to serve in a peacetime regular officer position. Six hundred officers graduated from this course between 1920 and 1927, after which the course was closed.[20] The weakest group of the personnel, those who were not able to adapt to peacetime conditions was screened out during these courses.

The Technical Company (under the Military School organization) was formed in the autumn 1923, replacing the Military Technical School (comprising of one platoon). The Technical Company was disbanded in 1927 after two classes of junior officers had graduated (in 1926 and 1927). After that, no more regular officers of engineer forces were trained.[21]

It seems that the officer personnel planning in these years were carried out in an ad hoc manner. By the order of the Ministry of War the admission to artillery, engineer and navy courses was terminated in 1926. However, all applicants meeting the requirements for infantry courses were admitted.[22] During 1922 to 1925 the number of officers admitted to the armed forces (222) was about three times less the number of others leaving the service (611). Separation from service was due to the reduction of staff. During the next 4 years (1926–1929), the number of officers employed in service

(424) exceeded the number of officers who left (282).[23] This can be explained by the need to overcome the existing shortage of staff. Infantry training was the cheapest and if necessary it was easy to organize in-service training (See Appendix D).

Reforms and Formation of the Cadre Crisis: 1928–1934

In 1928 the Estonian armed forces peace-time organization was reformed in order to reduce the expenses. Two types of standing units were formed of so called cadre units (mostly single infantry battalions where basic training of conscripts was accomplished) and border-cover units (full-size regiments in border areas for covering possible mobilization in inland, where advanced training of recruits followed). The organizational changes were affected greatly by the reduction of compulsory service time introduced in the same year (from 18 months to 12 months in army units for conscript training).[24]

Although the officer training was not affected directly by these changes, there were also some indirect influences, because of shorter training period the overall training process had to become more effective. The new law considering principles and foundations of officer preparation was validated starting from October 1, 1928.[25] According to the new law the cultivation and indoctrination of the future officer was from now on not solely the task of the Military School. These duties were now also extended to service troops, which had to participate in the process of training. The duration of the regular officer preparation took under the new arrangement altogether three years, of which two years were spent in Military School and one year in troop service (See Appendix A). The studies started with recruit service in units and between the study periods in Military School the service practice continued in various junior leader positions (as recruits instructor, squad sergeant, platoon sergeant and deputy platoon commander). In the first year in Military School all pupils had go through the reserve officer class (Aspirants Class). This moment was considered important because certain unity of preparation (doctrine) was aspired with this between reserve and regular officers. From all entrants full secondary school (gymnasium) education was now presumed, therefore the aspirants and cadets general educational level raised considerably (in comparison with Germany[26] or France in the same period the educational criterions were not so strict for all entrants to Military Schools in all cases). After the first

year (reserve officer course) under the tests and examinations those interested in regular officer profession were selected. The reservists were promoted after the successful leadership practice (mostly 2 months after their compulsory service ended) to reserve officer rank (Ensign).

In studying the new organization of Military School some similarities were noticed with the German *Reichswehr* officer training system. However under the German system the general training period for students having full secondary education was one year longer. The prior recruit service in Germany was 18 months for future officers, in Estonia it was only 3 months. But the leadership practice in troops and the Military School course was in case of Estonia two months longer.[27] The new officer preparation law handled only the infantry officer preparation. The special training required for other arms was not strictly stipulated and any system was regulated by single orders and instructions issues by the Army headquarters. Thus the system of officer preparation lacked flexibility from the perspective in training in all arms of the army. In 1930 the new law concerning officer preparation was passed and some minor changes were made. The most important changes concerned the rationalization of the training time-schedule.[28]

However, under the new arrangement only two graduate classes of regular officers were prepared. In 1931 the training of peacetime (regular) officers was discontinued. The reasons for suspending regular officer training was the absence of a clear policy for regulating the career renewal process for officer personnel and the staff of the cadet courses of the Military School in 1924 to 1926. This resulted in the overproduction of junior officers. Moreover, the number of peacetime officers needed over the long term was not specified at the beginning of the 1930s when an economic crisis broke out.[29]

At the same time, the number of participants in the reserve officer course was growing. In addition, new specialties for reservist training were introduced. In 1930 the detachment of aspirants for engineer forces was started in the Military School and training courses were organized in for officers in communications, engineer and gas platoons. In every year of the 1930s the number of conscripts with secondary or vocational school education entering the service was 900–950 persons. Of these 300–350

soldiers (approximately 35%) were selected for reserve officer preparation in the Military School after their recruit training.[30]

It is possible to distinguish the social origin of the reserve officer class graduates (aspirants). With the available statistical material we have details on three classes of graduates from the beginning of 1930s. The sons of farm owners made up little more than 30% of the total number, workers' sons (both urban and rural workers) formed almost 28%, civil servants and office workers' sons formed 21%, tradesmen and urban house owners sons' were estimated to be 11%. Among total number of graduates (686) in three graduating classes of 1930–1931 it was estimated that 56.3% of these (386) came from rural areas and 43.7% from cities and urban areas.[31] This data indicates that the city dwellers were overrepresented because fewer than 30% of the total Estonian population at the time lived in cities.[32] The better secondary school (gymnasium) education that was available in the larger cities probably influenced this picture.

The social distribution of aspirants under the given data seems to reflect a very even representation of the major layers of society. In some reports from the beginning of 1930s it was concluded that the general attitude of secondary school graduates was that they were not inclined to become reserve officers. There were even notable tendencies of trying to avoid these honourable but responsible duties.[33] In some cases this very individualistic tendency was reflected in form of conscious failures in tests and examinations in order to avoid the promotion and duties of reserve officer.[34] According to the several memoirs from the end of the decade however it seems that there were annually enough conscript contestants for Military School for enabling good selection for reserve officer course places.

After the stop of regular officer preparation the units of the Military School organization were formed purely of aspirants (2 rifle companies, machine gun company, battery and commando of engineers (signals, engineer and gas specialty students). Cavalry, skier-bikers and naval aspirants belonged to the organization of rifle companies. The recruit training duration was 2 months, after the 9 months spent in Military School as an aspirant (the course was subdivided into corporal (NCO) and reserve officer (aspirant) course), 1 more month was used for all-arms introduction two more for leadership practice in troops.[35] The curriculum

signified the importance of practical work methods. The first complete curriculum for reserve officer preparation was issued in 1929. The Aspirant classes' curriculum of 1929 divided the overall apprenticeship of 76.8 % for practical field and 23.2 % for theoretical studies. Tactics and marksmanship can be distinguished as the subjects with the largest number of lessons in the curriculum. Much attention was paid to individual shooting training (side arms, rifles, machineguns) in the Estonian armed forces in these times. The officer (both regular and reserve) had to be an outstanding marksman. This was probably one important element of individual skill that had to be balanced against the likely enemy superiorities in technology and in human resources.

Plans for overcoming the emerging cadre crisis: 1935–1940

After the seizure of power by head of the government Konstantin Päts in 1934 an authoritarian period of leadership period followed during which the increasing importance of military personnel in leading government positions can be noticed. The new army leadership under Commander-in-Chief of the Estonian armed forces Lieutenant General Johan Laidoner and Major General Nikolai Reek was free of parliamentary restrictions for making changes. The existence of a large group of overage younger regular officers was notable at this time and from 1932 to 1937 there were no graduates coming out from Military School Cadet classes. Rules regulating the removal of officers and new age limits for officer ranks were adopted in 1934. Regular officer training had come to a standstill, which caused problems in providing the Staff College with suitable officer personnel. It was necessary to start training officers in a more flexible manner for all arms of services.

In 1935 the new Arms of Services Officers Preparation Law was enacted (*Riigi Teataja No 92–1935*). Under the new law the Military School was divided into aspirant (reserve officer) classes and officer classes. After the graduation of the reserve officer classes those officers interested in a career as a regular officer and who had been approved by a board as qualified had to go through a two year period of leadership practice in units. During their service they were given the rank of *Portepee Aspirants,* the term signified their position as a regular officer candidate, which was equalled to an NCO status (See Appendix B). It was also expected that the personnel system would be constantly refreshed by replacing the extended service

NCOs cadre with a better qualified and more educated element. During this service period the practicants also went through 4-months long Battle School course (See Appendix C). During this course the future commanders were trained in older and newer infantry weapons as part of their tactical practicum. The students studied the medium machine gun, 81 mm mortar, 20 mm anti-tank rifle and 37 mm anti-tank gun and were trained in marksmanship and in shooting at aerial targets. The Battle School course is described also as physically demanding training period.

In this manner the troops also had to participate in the process of officer preparation. According to the official instructions, during their probation period officers responsible for the practicants indoctrination were appointed. The officer candidate had to be treated as such, and observed and guided by officers during their practice period. They also had to be prepared for the officer class entrance examination. Officer candidate manners, behaviour, and economic status[36] had to be considered; and the candidate's personal behaviour had to be mentored by experienced officers to ensure the candidate would be worthy to carry out his duties a future officer. It was noted out that the teaching and cultivation of officer candidates could not be left as an NCO task. Yet, despite the new instructions, it seems that the NCO's role still remained quite important in this process. As the Armed Forces Headquarters reported at the end of 1939, the results of the officer mentoring were unsatisfactory and the troop officer cadre had not taken their duties seriously enough.[37] After this, the probation period was considerably shortened.

After their probation period the officer candidates had to pass the entrance examinations to the Military School officer classes (Infantry, Artillery, Engineer and Naval Classes were opened). After winning entrance the students were promoted to the first officer grade (Ensign). The students now had officer status; therefore the classes were called officer classes (See Appendix B). The influence of the German system with some modifications can be noticed here.[38] The duration of study course for the infantry class was 12 months, in other specialties it was 20 months long. After the graduation of the class, and before their promotion, the officer students still had to go through another half a year probation period as a platoon leader with troops. (See Appendix B and C). With the long probation period behind them, the newly trained officers were expected to start their service as young, but experienced, military leaders in the grade of

second lieutenant, and not as apprentice officer. The reserve officer class entrants were expected to have five years of secondary education, whereas the regular officer candidates (officer class entrants) were expected to have full gymnasium education (5 years secondary education plus 3 years gymnasium).[39] Under the law, some advantages were given to university graduates. Reserve officer class graduates having prior university degree had to serve one year as an ensign in units before entering the officer class. After the entrance to the officer class they were promoted to the rank of second lieutenant. Attempts were made to attract officers with university degrees.

It was expected that under the established training and education system it was possible to unify and tightly combine the cadre NCOs, reserve officers, and regular officers staffing and preparation. This combined form of training was expected form and deepen the common views and ideas among armed forces leadership.

The infantry aspirants' class curriculum from 1936 on stated that the school's principal method of teaching was to be practical work. The practical part of the overall apprenticeship took up to 88–90% of the total course time, and left 10–12% of the course for theoretical studies. For example, in the artillery class the proportion was 84.8%: 15.2%). The proportions for infantry specialties were 30% of lessons for tactical training (33.7% for riflemen; 33% for skier-bicycle soldiers, and 23.5% for machine gunners). The shooting training formed an important part of the whole curriculum (23.7% for riflemen, 20.9% for skier-bicyclists and 29.3% for machine gunners). Drill training was in the third place of subjects, with 12.5% of the whole curriculum. The future reserve officers had to have the leadership skills for platoon leadership, and case of need they had to be able to assume company command. In the artillery class the predominant number of lessons was devoted for gun shooting exercises (25.4%). For the infantry officer class the 12 month long course curriculum in 1936 consisted of 1539 lessons, of which a bit less than 40% was dedicated to tactical subjects. For weapons training 10% of the lessons were foreseen. For the general educational subjects (10%), the Russian language too the largest amount of lessons (7%). The importance of weapon training can be illustrated by the curriculum requirement that 70% of the course participants had to be qualified as a first class rifleman. In fact, 100% of the graduates of the graduate class of 1937 fulfilled these

conditions. The same conditions set up by the curriculum for light machine gun marksmanship were also exceeded.[40]

The infantry officer class graduate had to be competent in battle leadership at the platoon and company level and have the ability to organize and cooperate with all arms of the service. He also had to have the ability to organize infantry platoon and company training. As the curriculum of 1936 stipulated, the peacetime training and future war threats demanded from contemporary leaders' broad knowledge, many skills, a strong character and good health. Therefore, the future leader had to be intellectually cultivated, professionally taught, and morally and physically strong. For moral indoctrination there was no special subject in the curriculum. The moral cultivation had to be accomplished indirectly and part of the whole course. Therefore all the lecturers and instructors were considered responsible for their students' personal development and knowledge. The initial (1936) officer classes' curricula were changed and adjusted in 1939 after experience showed that an increase in the time allotted for the practical subjects was needed. For example, the Armed Forces Headquarters demanded in 1939 that there should be also practical company leadership exercises as part of the officer course.[41]

After the initial experience of the new curriculum the system was changed again in the spring of 1940 by amendments to the law (*Riigi Teataja No 35–1940*) that shortened the whole regular officers' preparation time (See Appendix C). The preparation process of the regular officer was considered too long, and this caused the problem of younger cadre that was relatively old with the 4.5 to 7.2 year long preparation time. The first regular officer rank was achieved on average at the age of 25–27 years, and this was considered to old to maintain a healthy personnel balance. At the same time, as international tensions grew in Europe, the compulsory service time was lengthened again. In April 1939 the compulsory army service was extended again to 18 months for the land forces, and at the end of the year the aspirant's compulsory service time was extended to 24 months. It was recognized that the long preparation process of the regular officers deterred the wealthier and better educated members of the population from seeking an officer's commission. It was also noted that during the probation period the future officer candidates remained far too long under the influence of NCOs, which apparently had negative effects in lowering the individual drive and initiative.[42] Thus, the overall length of

regular officer preparation was shortened considerably. The process of making infantry regular officer was shortened from 56 months to 37 (See Appendix C). Under the amended law of 1940 the requirement of two years of practice and six months of probation before promotion to second lieutenant was abandoned.

The Naval Officer Preparation

The naval officer training program began at the end of 1919 at the established Military School special class. Between 1920 and 1923 it functioned as independent Naval Cadet School. The first class of 18 cadets graduated in the end of 1921 and in the fall of 1923 six officer-engineers graduated, after which the independent existence of the school ended. Thereafter, the naval officers were prepared in the naval platoon (class) of the Military School. Two grades of naval regular officers graduated in 1924 and 1928 (35 officers altogether), after which the naval class was closed. The naval reserve officers received their preparation in the Military School, aspirants in infantry units, and their naval training was supplemented in naval units. In 1932 two aspirants were seconded for studies to the Finnish Naval War School and were commissioned after their graduation two years later. The naval regular officer preparation was started again in 1938, when the Naval Officer Class of the Military School was opened. The studies lasted two years and in 1940 13 naval regular officers were commissioned.[43]

The Air Force Officer Preparation

In September 1919 the Aviation Training Department was founded and the history of the Estonian Military Aviation School began. In 1927 the Aviation School of the Aviation Regiment was formed on the basis of the department. Up to the later 1930s the qualification certificate of a military aviation officer was acquired after the graduation of the Military School Course in the Aviation School. The officers were seconded to Aviation Regiment's Aviation School airman or air observer classes. After graduation from that school a formal qualification was presented. On the average, the entrants were 24 years old on entry and 26 when they graduated. The deficiencies of the system were considered to be the age of the pupils (too old for efficient studies) and too expensive (students received full officer pay during their studies). However, at least a two year

program was considered necessary to develop properly qualified military airmen.[44]

In 1932 the aviation reserve NCO cadre preparation was started in the Military Aviation School. During the compulsory service time (22 months) the recruit training took two months followed by a two month training period and eight months of practical work. The students obtained the airman qualification and were transferred to reserve. The top graduates had the possibility to stay in the service as a regular NCO. They also had the chance to graduate from the Military School aspirant class and acquire officer rank. For the airmen the same system as the army officer training, with some modifications, was set out under the Arms of Service Officer Preparation Law in 1935 (See Appendix B). Starting in 1936 the Military Aviation School started to prepare aviation reserve officers. The compulsory service duration of the Military Aviation School was 22 months (extended to 24 months in 1940). After recruit training the corporal course aviation training started. This included the infantry reserve officer training carried out in parallel with the airman's special course. The Air Service training came under the Commander of Joint Military Educational Facilities and the Military Aviation School was subordinated to the Commander of Air Defence . Between 1936 and 1940 three classes of aspirants graduated (44 graduates).[45] The graduates had the possibility to become regular officers after graduation of the Military School Infantry Officer Class.

Officer-Technicians

The intense international situation in the late 1930s was related to the rapidly growing European arms race that emphasized the importance of technical arms of the military. The international conditions had their effect in Estonia. The re-establishment of the Military Technical School under the Joint Military Educational Facilities was carried out by Lieutenant General Johan Laidoner, the Commander-in-Chief of the Estonian Defence Forces, and Major General Nikolai Reek, and the Chief of Staff of the Estonian Defence Forces in the summer of 1936. The decision came from the establishment of the Tallinn Technical School in 1936 (named as Tallinn Polytechnic School from 1919 to 1936 and Tallinn Technical University since 1938), where civil engineering, chemistry and mechanics specialties were taught. The Military Technical School was

opened under the *Law for Preparing Technical Officers* (*Riigi Teataja No 65–1936*). With the decree issued by the Commander-in-Chief of the Armed Forces, courses in small arms, artillery and pyrotechnics (the latter was sometimes also called the ammunition course) were opened in the Military Technical School in the autumn of 1936. The young men who had completed reserve officer studies at the Military School were accepted to the school based on their test results. Their course was different from the officer classes in the Military School as the future technicians did not have to complete service practice after their reserve officer courses.

The four-year course, which lasted up to 5,810 hours (in the course of light weapons the theoretical course lasted for 3.5 years), consisted of a regular officer training course, Technical School subjects (in the small arms and artillery courses the emphasis was on mechanics, whereas in the course on pyrotechnics the emphasis was on chemistry), and a military technician course. The theoretical course was followed by a half-year practical work in military units and at the Office of the Minister of War. In 1938, on the order of the Commander-in-Chief of the Armed Forces, the course in electrical and motor vehicle engineering was opened and students. Studies began in September as a third year course in the Military Technical School. As a result of the Soviet occupation, the school was disbanded and the third year course was left unfinished. In August 1940, the students were promoted the Second Lieutenants with the authority of regular officers.[46]

The 10-year plan of manning the armed forces with officers was worked out by the Headquarters of the Armed Forces. The intention was to have four-year courses in the Military Technical School every other year, with 45 students at a time. At the request of Johan Laidoner, the Commander-in-Chief, the courses should have been started every year beginning in 1938, but with admission to different courses. Under the plan, by 1948 220 officers were to have finished the school. It was planned that 552 officers would have finished the officer classes (artillery, infantry and navy courses) in the Military School.[47] Thus, the ratio of new technicians and troop officers would have been 1:2.5.

Planning and the Cadre Situation in 1939/1940

Starting in 1922 and to the second half of the 1930s, the armed forces staffing and planning with regular and reserve officer personnel had an ad

hoc character. The systematic analysis and long term planning to solve the personnel cadre crisis did not emerge before 1935–1936 when the problem in all its complexity was acknowledged by army leadership. In 1936 and 1937 calculations were made about the means of selecting younger regular officers for Staff College. According to the Army Staff's analysis, to have enough suitable graduates of the Staff College to man the force requirements the army needed 400 course applicants of which 10-15% could be selected. However, it was evident that the number of available junior regular officers would decrease in the beginning of 1940s and would not be enough to form an adequate applicant pool. It was therefore considered vital that starting from 1938 the annual officer classes volume of graduates should be at least 50–60 officers.[48] In May 1938 a more elaborate staffing plan of officers for the next 10 years was approved by the Chief of Staff of Armed Forces and sent to the Commander-in-Chief. The plan handled both regular and reserve officers. The plan took into account probable annual losses, replacement requirements and retirement calculations. In order to avoid the overproduction of regular officers, the plan proposed to eliminate the regular officer shortage over the next ten years. The plan foresaw the annual graduation of a minimum of 35, and maximum of 105, junior regular officers from the Military School officer classes and from the Military Technical School.[49] The Soviet occupation in 1940 and the course of World War II made these plans impossible to realize.[50]

There were 1540 peace-time regular officer personnel positions in armed forces organization in the late 1930s. In April 1, 1938 there were 1340 regular officers in service--a deficit of 200 officers. Between 1921 and 1940 there were little more than 1100 regular officer graduates from military schools (The Military School, Military Technical School).[51] According to mobilization plans, a conservative estimate set the requirement for 6000 officers under war-time conditions (conservatively rated). It was estimated in 1938 that in order to mobilize 20 annual classes of officers (officers up to 41 year old), the Military School Reserve Officer Class had to annually graduate 330 aspirants.[52] In practice, this goal was generally met in the 1930s. Between 1923 and 1940 almost 4300 different reserve officers from various branches of service graduated from the Aspirant Classes of Military School.[53]

As much as it is possible to determine from different source materials, before and during World War II approximately 20% (little less than 200) of the just fewer than 1000 regular officers who graduated the Military School course between 1921 and 1940 were executed or died in imprisonment in the hands of the occupying powers (Soviet Union, Germany). Around 10% were serving in the ranks of the Red Army at the end of World War II (less than 100). More than 40% served in the German army, police and other German agencies (up to 400). About 10% lost their lives in battle (nearly 90). After World War II more than 240 former Estonian regular officers with an Estonian Military School educational background were living in exile --mostly in Western Europe, North America and Australia.[54] Similar data about the Estonian reserve officers' service data, background, and casualties is much harder to determine. However, it is very likely that of those officers who served in the various opposing forces in World War I the largest proportion served with the German forces. For example, in the formations mobilized under the German command in Estonia in 1944, most company level leaders had completed the reserve officer course of the Estonian Military School. Despite the exceptionally difficult circumstances, because a serious effort had been made to train officers in peacetime, Estonia was still able to organize a considerable military force under command of its own junior leaders.

Conclusions

The early experience of Estonia demonstrates the difficulty of long term planning for the national military high command and how a small state can create a suitable military leader training system for its requirements. From Estonia's view, all the concepts and principles inherited from Czarist Russia were outdated or were no longer applicable in the new economic and social environment of an independent Estonia. However, the uniform military background of Estonia's former Russian officers helped to form common ground and understanding among the senior leaders. Although there was a general understanding on the importance of training issues, and some agreement about the means of providing a training course for subalterns and for proper personnel preparation for training, the senior commanders in Estonia lacked experience in running a training program. The economic situation forced the leaders of armed forces to forma single combined institutional body for preparation of leaders of all arms and levels of leadership. Even with a consolidated institution there was still a

lack of expertise, knowledge, skills and will in the early years when it came to developing proper curricula and applying suitable teaching methods. After the first six/seven years of the Estonian Army the older lecturers were replaced with a younger generation coming from the first classes graduated from the Staff College and the officers who had studied in France and the general study process and methods were revised. The reorientation towards Western European ideas and experiences proceeded with the reforms of 1927–1928.

The principle of common basis of preparation was established from 1928 onwards for both reserve and regular officers. As the first phase of preparation and selection all pupils had to go through the recruit service and were then selected from those having secondary education to attend the reserve officer course. Thus, a uniform reservist training was established as a common base for all future officers whether they were in the reserve or in regular service. We can see that the Estonian system of officer training was very quality oriented. For example, both reserve and regular officers had to be trained as first class marksmen and were expected to have solid skill as instructors in training subordinates in the field. The development of the education was tied to the conditions and traditions of Estonia. In first years of the 1920s when the general educational levels were lower in society the possibility of obtaining a secondary school education by joining the army and going to the Military School helped to attract young men to officer profession. But after 1928 it was assumed that all entrants to the officer education program had a prior secondary education. It seems that there were enough educated young people provide adequate numbers of qualified personnel for the reserve officer and regular officer classes. After the reforms of the Arms of Service Officers Preparation Law of 1935 the educational criteria of full gymnasium education for officer class entrants remained in force. General education remained one of the main selection criteria for regular officer candidates in Estonia.

The initial system of training and education that was established was considered to be too theoretical and based on pure knowledge and not abilities and skills. Predictably this system did not give good results. The lack of stress laid on practical methods and troop practice, as well as the long probation period of future officers, was not in accordance with the prevailing mentality and values of Estonian community. In order to attract

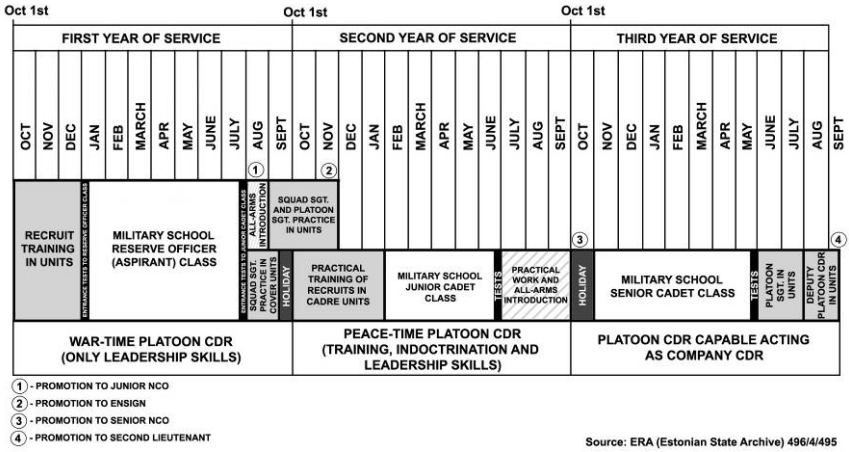
the best possible candidates to the officer profession the armed forces leadership had to make compromises. So the leaders started to abbreviate the preparation and probation time and conditions. It can be seen that the overly theoretical approach that was initially developed did not meet the needs of for training competent officers. As a reaction to this, reforms were subsequently introduced that went in the other direction and placed too much emphasis on practice and probation. A properly balanced approach for training officers had to be tested and approved over time.

The personnel planning in Estonia was not very systematic at the outset because of a lack of experience in such matters and because of the need to economize. There was also lack of knowledge as to how one could organize the different arms of the services in small state conditions because the need for specialist officers was very small. It was obvious that the infantry was the main arm of service and would need the most attention. But there was a lack of knowledge as to how to develop new personnel systems to manage the other officer branches. On the other hand, the importance of technical instruments and solutions was increasing throughout the period and this pointed to the importance of cooperation between civilian and military educational institutions. In looking at the historical documents the question is raised about determining the right proportion between tactical drill and technical skills in training military leaders for small states like Estonia.

Appendix1

APPENDIX A

ESTONIAN RESERVE AND REGULAR OFFICER TRAINING SYSTEM
ACCORDING TO THE LAW OF 1928



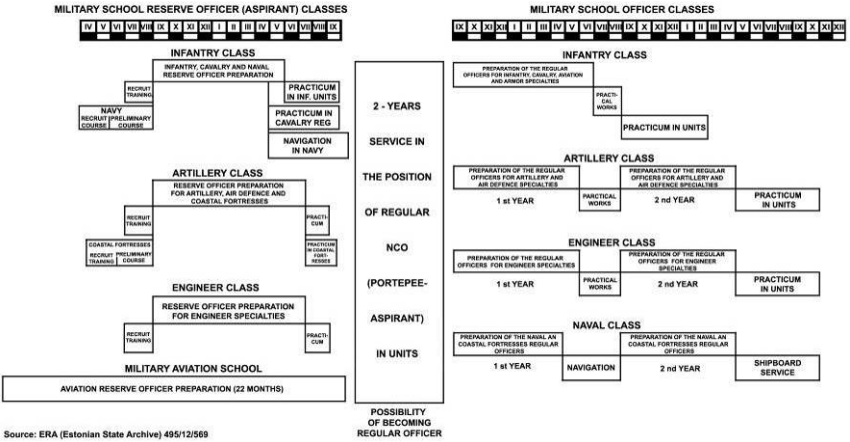
(1) - PROMOTION TO JUNIOR NCO
(2) - PROMOTION TO ENSIGN
(3) - PROMOTION TO SENIOR NCO
(4) - PROMOTION TO SECOND LIEUTENANT

Source: ERA (Estonian State Archive) 496/4/495

Appendix2

APPENDIX B

ESTONIAN RESERVE AND REGULAR OFFICER TRAINING SYSTEM
ACCORDING TO THE LAW OF 1935

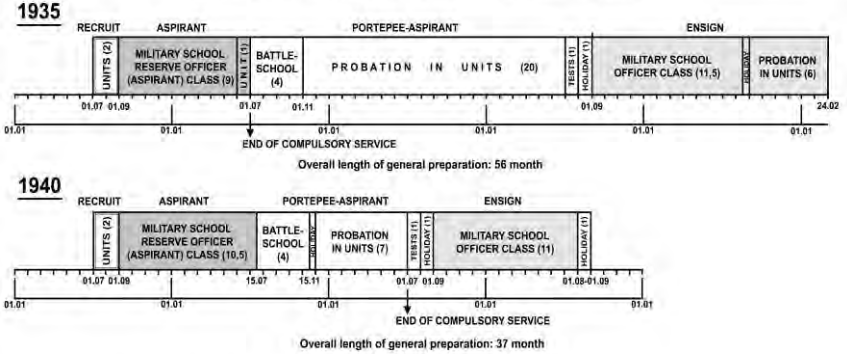


Source: ERA (Estonian State Archive) 495/12/569

Appendix3

APPENDIX C

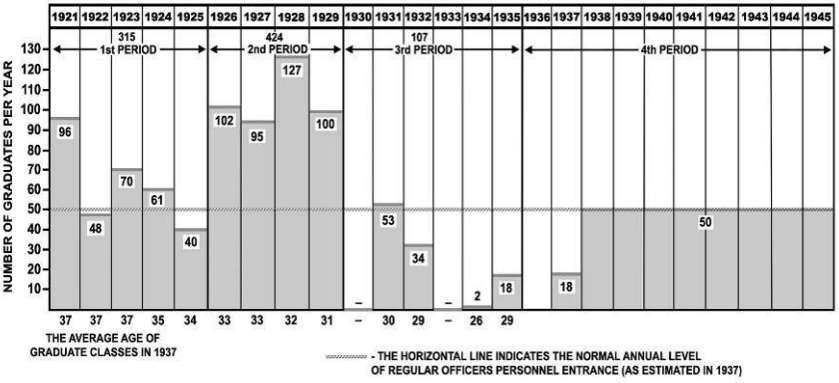
ESTONIAN INFANTRY REGULAR OFFICER TRAINING SYSTEM
UNDER THE LAW OF 1935 AND AS MODIFIED BY LAW OF 1940



Source: ERA (Estonian State Archive) 495/12/612

Appendix4

APPENDIX D ANNUAL DATA CONCERNING TRAINING AND EDUCATION OF ESTONIAN REGULAR OFFICERS SINCE 1921
AND THE ARMED FORCES HEADQUARTERS OFFICER PERSONNEL PLAN FOR NEXT TEN YEARS (1936-1945)



DURING THE 15 YEARS (1921-1935) WAS PREPARED 846 REGULAR OFFICERS
IT WAS ESTIMATED (1937) THAT DURING THE NEX 10 YEARS (1936-1945) THERE WILL BE PREPARED 418 REGULAR OFFICERS

Source: ERA (Estonian State Archive) 495/12/594

[1] Reek, Nikolai, 1922. *Mõtteid jalgväe taktika alalt (Thoughts on Field Infantry Tactics*). Sõduri Lisa No X.1922 p. 639.

[2] According to the census of population of 1934 there were little more than 1.1 million people living in Estonia.

[3] Jaakson, Aleksander, Kümme aastat õppetööd sõjaväe õppeasutustes (*Ten Years of Studies in the Military Training Facilities*). *Sõdur* No 6/7/8.1928 p. 253.

[4] For an example see Bauming, Ernst, Reservohvitseride ettevalmistamise aluseid, nende oskuste ja teadmiste täiendamise probleeme tänapäev (*Reserve officer training foundations, contemporary problems of their skills and knowledge supplementation*). Tallinn (ERA 495/12/630). 1936. p. 120.

[5]Kasekamp, Juhtide kasvatus ja väljaõpe sõjaväes möödunud sõdade, eriti maailmasõja ja Vabadussõja kogemustel (*Military Leaders cultivation and training under the experiences of last wars, especially under the experiences of the World War and the War of Independence*). Tallinn August, 1928. (ERA 496/4/494; copy in Estonian National Defence College Library). p. 79–80..

[6] Estonian State Archive (ERA) ERA 495/10/74, 4. Henceforth ERA

[7] Seene, Andres, "Vabariigi Sõjakooli asutamine ja selle esimese Vabadussõja-aegse lennu lõpetajad," (*The Formation of the Military School of the Republic of Estonia and its First Graduates in the War of Independence*). In Juhid ja juhtimine Eesti Vabadussõjas 1919–1920 (*The Leaders and Leadership in the Estonian War of Independence (1918–1920*). (Tartu: Kaitseväe Ühendatud Õppeasutused, 2010) pp. 61–106.

[8] Ibid.

[9] Riigi Teataja (Official legislative periodical of the Republic of Estonia), No 71–1921.

[10] Riigi Teataja No 19–1923.

[11] The term itself was probably borrowed from France, where during the World War I war-time officer courses were formed under this title to provide educated young men with an officer's authority. The Aspirant was not a formal rank, although it was roughly equated to the rank of junior NCO. It was meant to indicate the position of the serviceman as a reserve officer candidate. After troop service and after the end of compulsory service the aspirant was given the first officer rank in the reserve (ensign). In 1930s when reserve officer course graduates were taken into active service as extended-servicemen (NCOs) there were cases in which they still tried to use aspirant title instead of NCO rank for exerting their higher level of general and military education.

[12] ERA 650/1/445, 12–17.

[13] About the closer developments of Estonian Staff College see: Seene, Andres. "The Estonian Higher Military School (1921–1940): Some Methodical Aspects in the Development of Small Nation's Higher Military Education," *Baltic Security and Defence Review*. Volume 11/2009, pp. 99–113.

[14] Seene, Andres, "Sõjaväe tehnikaharidus Eestis 1921–1940 (*Military Technical education in Estonia 1921–1940*). Eesti Vabariigi Sõjaväe Tehnikakool 1920–1923/1936–1940 uurimusi, mälestusi ja dokumente," KVÜÕA toimetised 6/2006 (*The Estonian Military Technical School (1920–1923, 1936–1940). Surveys, memoirs and documents*). (*Estonian Defence College Proceedings Series*, issue No 6/2006. pp. 11–12.

[15] Ibid pp. 13-16.

[16] Reek, 1926: 606–611; 630–637

[17] Riigi Teataja No 41–1927).

[18] Bauming, p. 98.

[19]Kasak, Elias. Mälestused III (*Memoires, Part III*) ERA 4996/1/126. p. 77.

[20] ERA 650/1/445, 10–12.

[21] Seene, Andres, "Sõjaväe tehnikaharidus Eestis 1921–1940 (*Military Technical education in Estonia 1921–1940*). Eesti Vabariigi Sõjaväe Tehnikakool 1920–1923/1936–1940 uurimusi, mälestusi ja dokumente," KVÜÕA toimetised 6/2006 (*The Estonian Military Technical School (1920–1923, 1936–1940). Surveys, memoirs and documents*). (*Estonian Defence College Proceedings Series*, issue No 6/2006. Seene, 2006:16–17.

[22] ERA 650/1/125, 94

[23] ERA 650/12/467, 3–9.

[24] As precondition for transition to 12 months compulsory recruit service time the preliminary military training was introduced in secondary and vocational schools since 1927/1928. Those who had passed the initial military training in schools could apply to have their recruit service shortened by 2 months. The time extension for university students was abolished. Thus, from then on the Military School Aspirant Class was made up of primarily secondary school graduates.

[25] Riigi Teataja No 52–192).

[26] Although the gymnasium education (*Abitur*) was considered in Germany before and after World War I as one important criterion for officer candidate selection, the main emphasis was placed on character and breeding. See for example: Boog, Horst, "Civil Education, Social Origins, and the German Officer Corps in the

Nineteenth and Twentieth Centuries," *Forging the Sword. Selecting, Educating, and Training Cadets and Junior Officer in the Modern World. Ed. Elliott V. Converse III. Chicago: Imprint Publications 1998*, pp. 119–134.

[27]Kasekamp, pp. 96–97.

[28] Riigi Teataja No 71–1930.

[29] ERA 495/12/496, 3–9; see also data of Appendix D.

[30] ERA 495/12/554, 340–342.

[31] Haber, Mart, Eestlane sõdurina. Järeldusi Kaitseväe komplekteerimiseks, väljaõppeks ja juhtimiseks (*Estonians as Soldiers. Conclusions for the Staffing, Training and Command of the Defence Forces*). KVÜÕA toimetised 9/2008 (*Estonian Defence College Proceedings Series*, issue No 9/2008. p. 362, 373.

[32] *Eesti Entsüklopeedia nr 11,* 2002:260.

[33] ERA 495/12/554, 340–342.

[34] Kasak, p. 82.

[35] The first training courses for reserve officers were organized in 1925. The after their initial preparation and commissioning the reserve officers were assembled for refresher training. Further knowledge and skills training was carried out under two organizations – the Defence League (*Kaitseliit*) (from 1925) and Reserve Officers Sections (from 1933). Both organizations were organized under the territorial principle. In 1936 45% of reserve officers belonged to the Defence League and 42% to the Sections. Half of those belonging to sections were also engaged to the Defence League, therefore altogether 66% of them were engaged in both organizations. See Bauming, pp. 129–130.

[36] This need for economic control and the necessary need to save money was probably reaction of armed forces leadership when it appeared that some regular officers had serious debts and others suffered from alcohol abuse.

[37] *ERA 495/12/604, 181–182*

[38] It is interesting that the Estonian ensign rank (Est. *lipnik*) was most widely used as the term for the lowest officer rank and was derived and translated from the World War Russian term for war-time officer (in Russ. *прапорщик*). The German equivalent to the Estonian ensign could possibly be *Fähnrich*, which was the rank of military school cadets in Germany. Starting in 1935 the Estonian regular officer candidates, students of the Military School Officer Classes, received promotion to the first officer rank of Ensign. In 1941 when former Estonian Military School

graduates were taken into the *Wehrmacht* service (for example the security battalions formed of Estonians under the German Eighteenth Army) the former Estonian Ensigns (reserve officers) received the German rank of Lieutenant (*Leutnant*) and former second lieutenants the rank of first lieutenant (*Oberleutnant*).

[39] In 1934 the general educational reform was introduced, whereby the two-level secondary education system was established. After four years of elementary (compulsory) education the next stage was a five year long secondary school (the so-called secondary school law of 1934, which was also equated this education with some vocational and specialty schools), after which three years of the gymnasium (high school) (the gymnasium course was also equated to graduation from the Pedagogiums in Tallinn and Tartu and also the Tallinn Technicum). Only the gymnasium (also known as secondary school of 1923, and schools equaled with it) graduates could apply for university entrance.

[40] ERA 650/2/232, 48.

[41] ERA 495/12/612, 936–938, 942–944.

[42] ERA 495/12/612, 1235.

[43] Data gathered by author under various source materials.

[44] ERA 495/12/569, 152.

[45] Gerdessen, F.; Kitvel, T.; Tilk, J.; Aeg. *Mehed. Lennukid. Eesti lennunduse arengulugu kuni 1940. aastani* (*Time, Men; Aircraft. The Story of Estonian Aviation until 1940*). (Tallinn: Eesti Entsüklopeediakirjastus, 2001) pp. 230–240.

[46] Seene, Andres, "Sõjaväe tehnikaharidus Eestis 1921–1940 (*Military Technical education in Estonia 1921–1940*). *Eesti Vabariigi Sõjaväe Tehnikakool 1920–1923/1936–1940 uurimusi, mälestusi ja dokumente*, KVÜÕA toimetised 6/2006 (*The Estonian Military Technical School (1920–1923, 1936–1940). Surveys, memoirs and documents*). (*Estonian Defence College Proceedings Series*, issue No 6/2006.pp.24–25.

[47] ERA 495/12/467, 3–9.

[48] ERA 495/12/594, 60–68, 84–88.

[49] ERA 495/12/467, 3–9, 10, 14–18.

[50] The Joint Military Educational Facilities were disbanded by the Soviet authorities in 1940. On the basis of these school's resources the Tallinn Red Army Infantry School was formed. Using the human and material resources of the former Estonian Army the Soviets formed the Red Army's 22nd Rifle Corps.

[51] ERA 495/12/467, 3–9.

[52] Ibid.

[53] Data calculated by author using archival materials.

[54] Data calculated by author using several source materials.

Development of Finnish Tactics after the Second World War

By Petteri Jouko[*]

A Complex Political Legacy

The political and strategic framework for Finland changed radically as the result of the Second World War. Finland lost the war, even it was not occupied by the Soviet Union. During the decades following the war – until the collapse of the Soviet Union – Finnish politics were characterised by balancing between the power blocks of the East and the West. A pursue of neutrality in the paranoiac, yet logical political confrontation required political skill. The neutral states in Europe found their own peculiar ways to survive suspicious political and military environment. Sweden was active in her neutrality policy, yet secretly prepared to co-operate with the West.[1] Switzerland sought security from political and military isolation. Due to the outcome of the war the Finnish politics were dominated by the Soviet Union. For the most of the Finns, the Soviet Union and the Soviet political system were alien, though a certain amount of population found the Soviet ideology attractive. At the macro level there was hardly any option but to promote peaceful coexistence with the superpower and even to try to find beneficial prospects in it. This produced a certain double layered system in Finland. The official Finland promoting good relations with the Soviet Union was one dimension of the reality. The extent of relations, whether it approached unsound appeasement or was nothing but *Realpolitik* is a policy is that is still debated in Finland and outcome is dependant on observer's own political values. A silent opposition was another dimension of the realities of the time. Apart from small scale political turmoil in few instances, there were no radical outbursts against the Soviet Union in Finland. Yet, anti- communism was deeply rooted in the society. It existed beneath the inexpressive face of official Finland and in several unofficial establishments, such as trade unions and commercial circles, who fought a protracted secret war against expansion of communist influence.[2]

[*] National Defence University of Finland

The double layered system extended to the Finnish Defence Forces – though in clandestine form. The Finnish Defence Forces, adapting a strategy of strategic defence in the aftermath of the war, prepared to fulfil political commitments and international treaties that were more or less dictated by the Soviets. On the other hand, the Defence Forces prepared to defend the country to all directions, including east. The political and military framework for almost 50 years was set in three treaties signed in 1944–1948; the Paris Peace Treaty and he Treaty of Friendship, Co-operation and Mutual Assistance (FMCA Treaty) with the Soviet Union being the most important.

The Paris Peace Treaty was designed to disarm Finland as "*the maintenance of land, sea and air armaments and fortifications shall be closely restricted to meeting of tasks of internal character and local defence of frontiers.*[3] The size of the Defence Forces was restricted to 41, 900 men. Though the Finnish Defence Forces were to interpret the treaty differently, the treaty did not distinguish the distinction between the peacetime and wartime establishments. Atomic weapons, submarines, bombers and missiles were categorically forbidden and the size of air fleet was restricted to 60 combat planes and the total tonnage of the Finnish navy to some 10,000 tons. In addition, the surplus of weapons – there was hardware for some 15 divisions at the time of the war ended – was to be delivered to the Allies or destroyed by the end of 1949. The Soviet and British embassies were to provide instructions and coordinate the treatment of surplus. Due to the break between two former allies, however, the matter never actualised – for the great relief of the Finnish Defence Forces.[4]

The explanation for the Soviet reluctance to press Finland in delivering the surplus materiel is obvious. It was in the Soviet interest not to establish a military vacuum on its western border. On the contrary, the Soviet Union sought to establish a buffer zone of friendly nations on its western border by signing a set of bilateral defence treaties in the late 1940s. Finland was no exception. In the spring of 1948 the treaty of Friendship, Cooperation and Mutual Assistance (FMCA Treaty) was signed in Moscow. The treaty compelled Finland to defend her territory if Finland or the Soviet Union was attacked by Germany or her ally through Finnish territory. The contradiction between the Paris Peace Treaty and the FMCA Treaty is self-evident. How to fulfil the commitments of defending Finland with the pitiful army dictated in Paris? It can be explained only by the fact that the

armament restrictions of the Paris Peace Treaty were set by the British. In the light of events taking place in the Soviet sphere of influence, the policymakers in the Whitehall saw Finland as a prospect member in the infamous pool of people's democracies.[5]

In the Spirit of co-operation – a Threat Perception

The FMCA Treaty had a fundamental influence on the official threat perception. A Parliamentary Defence Committee, established in 1945 to reassess the military political situation and the composition of the Defence Forces, concluded categorically that due to the FMCA Treaty there would be no direct threat from the east. The final report forecast a potential conflict smouldering between the NATO and the Soviet Union. The clash of a global scale could suck Finland in to the conflict. The Finnish air space would play particularly crucial role as the US atomic bombers could penetrate it on their missions to the Soviet Union. The northern part of Finland – the Lapland – was considered a potential battle zone if NATO extended her land operations from Norway towards Soviet Union.[6]

The views of Parliamentary Committee were refined in the Operations Division of the General Headquarters into three scenarios: A, B and C. Apparently, the first outlines of the threat perception were produced in 1945, in the immediate aftermath of German forced withdrawal from Finland. According to the views of the Operations Division, Finland, due to her geographic position, could become a tempting stepping stone for the West in operations against the Soviet Union. The most endangered regions were Lapland and the south-western coast of Finland, as well as the Finnish air space.[7] The scenarios that were further revised during the next twenty years established an official – though top secret – threat perception until 1966. Although the tone of scenarios developed during the course of the time, the basic assumption remained unaltered: Finland was attacked from the West the spirit of the FMCA Treaty. Finland itself was not the main target for the operations but her territory would provide a base for further operations against Soviet Union. According to scenario A, the main attack was to come from Norway as NATO would seek to establish a base for further operations towards Murmansk. Scenario B called not only for offensive in the North but expansion of NATO's maritime operations, including amphibious operations, into the Baltic. The aim of these operations was to tie down the Soviet forces and create an

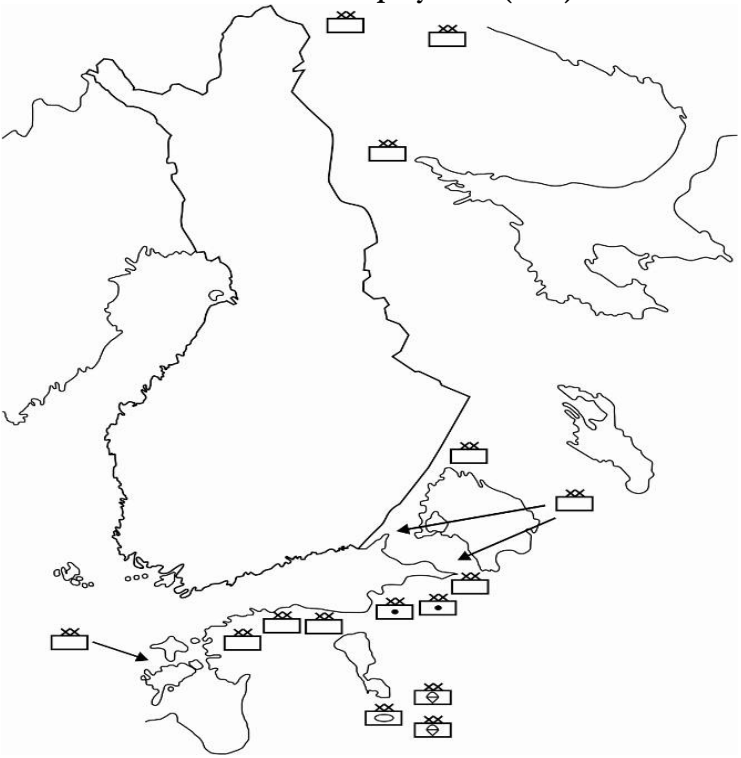
operational bridgehead against Leningrad. The red arrows in Scenario C were a true nightmare for Finland since, according to this scenario, Sweden would ally herself with the NATO. In addition to aggression in Lapland and on the southern coast, the enemy would cross the Finnish-Swedish border and the Gulf of Bothnia and could actually jeopardize the whole western border.[8]

The products of first two rounds of war planning – OpPlan 52 and OpPlan 58 – were designed to meet these options and fulfil realities of the FCMA Treaty. The Finnish military high command realised the lack of real options. Finland had to be able defend her territory, and also to convince the Soviets of her will, if compelled to, against attack from the west. Otherwise the Soviets could meet the threat by dispatching their forces into the Finnish territory. Kremlin deciding to refrain from direct invasion could always propose military consultations to expand bilateral military co-operation. [9] This, in turn, would turn any claims of neutrality into a political farce.

An invasion from the West is the prevailing impression in the planning documents, but there was another side of the coin. Any serious threat from the West would necessitate a radical change of military capabilities or the possible Swedish membership in NATO. Apart from the air component and weapons of mass destruction, of course, NATO had few capabilities to broaden its operations to Finland. In reality, only the Soviet Union possessed adequate military capabilities for launching a rapid and viable operation against Finland. The potential of the Soviet military forces was well acknowledged in the Finnish High Command. A top secret document assessing the Finnish strategic position and the national defence by the Operations Division in 1960 puts the military realities before its very restricted readership. It proclaimed that the greatest immediate threat against Finland would arise from the Soviet Union.[10] Not only did the Soviets have a substantial amount of forces in the Finnish vicinity, but some of them were in relatively high readiness. Elements of two armies were garrisoned along the Finnish border and two airborne divisions were deployed in southern parts of the Leningrad Military District.[11] The Soviet Baltic Fleet with bases in on the other side of the Gulf of Finland in Libau, Riga and Baltijsk, for example, possessed a considerable number of naval vessels, some of them in constant readiness enabled by the three year conscription system.[12]

The observation of the Soviet readiness was transformed in to the threat perception. A strategic surprise attack, external *coup etat*, taking advantage of stand by forces, became the core of the Finnish threat perception. A massive land attack was not needed if the attacker was able to paralyse the society with strategic *coup de main* – as was to take place in Czechoslovakia in 1968. As countermeasure, readiness was categorically emphasised from the early 1960s in Finland. The first standing forces consisting mainly of conscripts who were tasked to be in their first battle stations within six hours of alarm. Formations belonging to the covering forces were to be deployed on the second or third day after they were mobilized.[13]

Figure 1: Estimate on the Soviet Deployment (1960)



Anything addressing the Soviet Union was ultra sensitive because the situation was, in many ways, absurd. Finland had an obligation to defend her territory against attack directed against the Soviet Union. At the same time, it was conceded in the military leadership that the Soviet Union was the most potential threat. As a consequence, operational measures against a possible Soviet invasion were covered and their extent in not fully known even today. The expansion of the war-time Frontier Guard was one way to approach the problem of the eastern border. Over 20, 000 soldiers were assigned to the war establishment of Finnish Frontier Guard in the early 1960s. They formed a framework for special Frontier Brigades (*rajaprikaati*) designed to conduct both conventional and guerrilla operations against the Soviet invasion. Another measure was to mobilize and pool substantial amount of the general reserves at the Eastern Command that faced the Soviet border. Instead of deploying them to defensive tasks these formations formed a ready reserve for the high command in their mobilization areas. In addition, defence measures took advantage of the World War II era fortified SALSA Line facing the Soviet Union.[14]

The Deepened Battlefield

The political legacy along with the new challenges has been briefly addressed. What about war experience? What were the main lessons of the war that were learned by the Finnish Defence Forces? The Soviet offensive in the summer of 1944 was a harsh surprise for the Finnish Defence Forces even as the principles of Soviet tactics were introduced to the Finnish by the Germans before the Soviet attack took place. A set of lectures, enhanced with translations of the German experiences in the Eastern front, were put before selected group Finnish officer corps in early 1944. According to Colonel Nobis, the German lecturer, the main ingredients of Soviet offensive were a massive artillery preparation; deep penetrations by armoured formations and massing of infantry in an intended breakthrough area. Nobis also emphasised the Soviet skill of covering their intentions in his lectures.[15]

The Soviet offensive, beginning in June 1944 was repulsed only after a month of fierce fighting. After withdrawing some 100 kilometres and losing two fortified defence lines, the Finnish Defence Forces were able to stabilize the situation and successfully fight three large battles that, in hindsight, formed one operational entity. The operations, supported by the

German Luftwaffe and emergency armament deliveries, came to successful conclusion only after the main elements of the Finnish Army were concentrated to the Carelian Isthmus, the site of the Soviet main effort. The main lesson of the defensive operations was important but still went unlearned by the Finnish High Command: the breakthrough in the main axis of attack could not be repulsed in the front line. The weight of artillery preparation, aggressive use of ground attack planes in close air support, massive concentration of armour and infantry were able to penetrate any linear defence inevitably, as described by Colonel Viljanen whose regiment was unfortunate enough to be in the way of the Soviet *Schwerpunkt* in 1944.[16] The contemporary Finnish tactics, however, still called for linear defence. The formation level tactics focussed on main defence line running across the whole defence position. Since the main defence line was expected to be in the friendly hands after the battle, the commander had little option but to waste the bulk of forces in holding the entire width of the defence position and use his reserves to regain parts of the lost main defence line.[17]

The question on the sound employment of reserves was problematic. In general, the reserves were inadequate during the summer of 1944. This can be partially explained by the organization of the Finnish divisions. Due to economic reasons and in the expectation of rapid victory, the Finnish field formations were reorganized during 1942 and the third infantry regiment in the division was reduced in to a battalion.[18] The solution put divisional commanders in to a difficult situation. They did not have a third regiment to build necessary depth in to their defence and the size of reserve – a single battalion in whole division – was inadequate. The organizational miscalculation had undesired and unexpected consequences. Divisional commanders were compelled to establish divisional reserves from their subordinate regimental commanders.[19] This, in turn, caused problems at the regimental level. Planning an organized battle within a regiment became even more difficult than usual because substantial part of tactical choices available for regimental commanders become dependant on superiors' goodwill. Another lesson with the reserves addressed their location. They were often too close to the forward edge of the battle area. Tactical reserves found themselves often under the same massive fire preparation as the front line troops. As a result, they were either bled white even before mounting the counter attack, or fatally weakened when initiating it.[20] The Finnish defence in summer 1944 was not saved by the

local, tactical reserves, but by two brigade and four division formations transferred from the other sections of the 700 km long front.[21] Had the Soviets understood the importance of the battlefield interdiction like the Western Allies during Operation Overlord and prevented the flow of Finnish reserve formations to the Carelian Isthmus, the outcome of the Soviet offensive and the whole war could have been altogether different.

The Deep Attack Encounters the Deep Defence

The cure for the problem of repelling deep, echeloned attack was to deepen the defence. The first manuals published after the Second World War did not address the problem of defence properly. They were merely sequels to pre-war tactical thinking still confining the defence on holding the main defence line. The importance of terrain, was, however recognised. Difficult terrain, restricting the movements of armoured enemy was considered the most important balancing factor for the non- motorised Finnish formations. Another noticeable feature in the manual addressed the coordination of firepower. The basic principle was to integrate different elements of firepower – field artillery, mortars and antitank weapons, for example – at the early stages of planning. Without too much exaggeration one may claim that concentrated firepower and the use of difficult terrain ruled Finnish tactical thinking at the expense of depth in the early 1950s.[22]

The concentrated use of artillery became one of the main tactical dogmas for decades to come. The lack of artillery and ammunition had been paid by the expense of manpower during the Winter War 1939. The picture of bloodstained snow and terrain after futile local counterattacks that were doomed to fail due to the lack of artillery support was still vivid in memories. Since role of artillery, as well as its quality of artillery had steadily increased the situation was somewhat different from 1941. The concentrated use of artillery – especially to counter preparations against enemy troop concentrations deploying to attack – was found effective during the summer of 1944. At the peak of defensive phase, elements of some 12–18 artillery battalions participated counter-preparation and counter-battery program with destructive results. The Soviet attack elements were paralyzed before reaching the start line of the attack.[23] Due to this experience, the first post-war artillery manual, in describing the principles of the employment of artillery, promoted the massive use of

artillery to achieve decisive results.[24] The training directive of 1957, later discussed in this article, followed the same path. It called for bold decisions to rapidly concentrate 20–25 artillery battalions at the decisive part of the front in order to repulse the attack.[25]

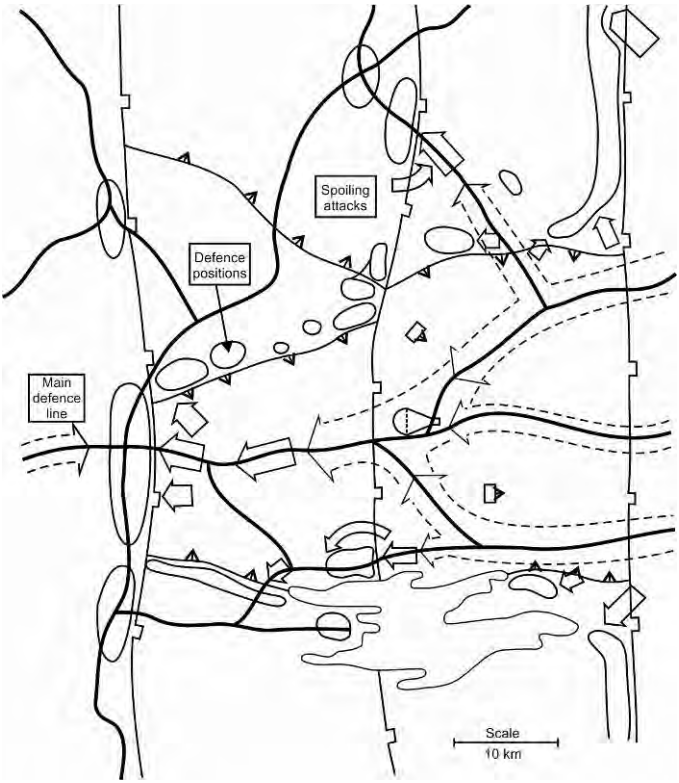
The war experience slowly matured during the late 1950s and a training directive published by the Training Division in 1957 encapsulated the war experience in many ways. The Directive took note on the enhanced capabilities in vicinity of Finland, naturally without naming the possible aggressor. The Directive stated that at the beginning of hostilities the enemy would seek operational solution by surprise. Armoured formations, assisted by tactical airborne operations, were to penetrate thin defences along main roads. If a surprise attack failed then the enemy would commence a massive offensive, very similar to that conducted by the Soviets in 1944.[26]

The directive put great importance on defence in depth. Defensive sectors along the main axis of attack should be narrow and deep and designed to withstand local penetrations up to 10–20 kilometres. The defence was to consist of interlinked defence positions in depth in difficult terrain that would force the enemy either make frontal attack against these positions or to conduct time- consuming flanking movements. The massive use of minefields – the family of domestic mines was under development at the time – was intended to block routes of approach. The demand to wear down the enemy attack in a depth required change in linear tactical thinking. Instead of withdrawing, formations were to conduct a stiff defence on the flanks of enemy in order to win time for the large scale counterattacks by the general reserves. [27]

The concept of the tactically restrictive and unimaginative main defence line was finally abandoned in the formation level tactics in the early 1960s. The recommendations of the Tactical Directive were incorporated in the new field manual published in 1963. The defence was to be organised into a strong defence position consisting of several strongholds capable of supporting each other. Any breakthrough would be met by another blocking position in the rear. The new manual also called for the active use of the means of guerrilla warfare. According to the manual, the whole formation, or elements of a formation, could be used for guerrilla warfare whenever tactical situation required it. The action in the enemy rear was to

be an integral part of formation's battle aimed to take full advantage of the deepened defence.[28] The ideas on guerrilla warfare had slowly matured since the Second World War.

Figure 2: Principles of deepened defence in 1957 (tactical level)



As previously mentioned, a whole formation could be employed in guerrilla warfare. This, however, was considered an exception. The main elements for waging guerrilla warfare were to be especially trained and equipped guerrilla warfare (*sissi*) battalions and companies trained in several garrisons of the Defence Forces and Frontier Guard.[29]

Evolution of Integrated Battle

The article has mainly touched planning and principles within the basic formations. A deep attack could not, however, be countered at the formation level. It is worth noting that the Finnish way of defining levels of war is different from the British or US tradition. Finns used to affiliate a level of war with the size of acting command. Military units smaller than a brigade, the Finnish basic formation, were considered to operate at tactical level. Brigade was the watershed formation as it was designed to carry out independent operations, either at the operational or tactical level. Army corps and military regions (*sotilasläänі*) operated at the operational level. The place of the division was far from clear-cut by the beginning of the 1970s. In practise, the tactical level of war covered everything from battalion to the military region, as is later discussed in the context of tactical notes for territorial defence. [30]

The demand to repel a deep attack called for revision of the context. The entire defence system began a slow transition starting in the early 1950s. The idea of repelling a deep attack in zones was prescribed in the 1950s when a zone of operations (*sotatoimivyöhyke*) was detailed for each of three peacetime operational commands. Their respective commanders were expected to conduct their operations between forward and rearward edges of their zone of operations. The zone of operations was divided into successive defence zones. The aim of these zones was to create depth and flexibility in the operational level leaving the respective commanders certain level of liberty to carry out their operations within their areas of responsibility. Additional depth could be created behind zones of operations to create blocking positions for breakthroughs.[31]

Defence zones, however, can be seen as extension of linear thinking and they were an interim phase solution. The introduction of seven military regions in 1966, with respective commanders liable for all defensive preparations in their regions, was a true transition towards the deeper battlefield and towards a deep defence. The idea of a deep defence integrating local defence and general operations took form in the late 1960s and the early 1970s.[32]

The principles of a new concept were condensed in a memorandum of the Operations Division in 1969. It took a threat perception – as done in any

sound concept or study – as the basis for further enquiry. Finland was not seen as a target for nuclear weapons, but effects of a nuclear release taking place in a global conflict could extend to Finland. It was believed that a direct military threat against Finland would take form either as a strategic surprise attack aimed to overcome resistance by paralyzing the key functions of the state, or as a large-scale offensive. The strategic surprise attack was considered the most dangerous alterative because the outcome of the war was dependant on peacetime preparations and on the conduct of operations at the very early stages of conflict-- miscalculations in the peacetime preparations could bring the conflict to a rapid end.[33]

The Memorandum of the Operations Division outlined the roles of different services. The Air Force and the Navy were in crucial positions to repel territorial violations before the actual hostilities began. Their role, in other words, was political as well as military: to convince the potential aggressor of the Finnish will to defend her territory. The backbone for the defence was provided by the army, which would take the leading role in fighting the actual invasion. The Memorandum realistically acknowledged the weaknesses of the Finnish Defence Forces. Finnish formations would engage an enemy possessing better firepower and mobility, and operations would have to be carried out in circumstances where hope for anything but local air superiority was unrealistic. The superiority of the aggressor had to be balanced by other means.[34] The terrain as a balancing factor has been referred several times in this paper. In the 1950s and 1960s the Finnish communications network was relatively undeveloped, especially in the northern parts of the country which were still largely wilderness and unsuitable for mechanized warfare. Southern parts of the country, however, offered wider possibilities for rapid advance along unpaved roads and strips of fields. In these parts of country, as one thesis produced in the War College noted, motorized formations typical to both the West and the East would be able to carry out operations according to their operational and tactical doctrines.[35]

Although the threat perception addressed mainly external threats, the prospect of internal instability in connection with external political pressure was not completely ignored.[36] Subversion and internal emergency caused by political instability was considered a potential, though unlikely, threat. It is interesting to note that the Defence Forces published a special pamphlet on the use of military personnel in support of civil power within

weeks of the Warsaw Pact intervention in Czechoslovakia in 1968. The pamphlet, loyal to Finnish tradition of not speculating the source of trouble, was actually a directive for riot control.[37]

A steadfast development of readiness – described briefly in the first chapter – was described as the key factor in preparing against surprise attack. The mobilization system was to be developed to meet very tight timeframes. The local defence system and local forces, later touched on in this article, were to provide the operational framework for delaying the enemy and holding on to essential objects.[38]

In 1971 the Training Division of the General Headquarters issued the Provisional Tactical Note for Territorial Defence (*Taktillinen ohje alueellisesta puolustuksesta*).[39] The document aimed to present guidelines for operational preparations as well as training. Furthermore, it introduced principles of different local forces and their employment in an abridged and unclassified format. The Tactical Note full filled two doctrinal gaps. In contained information on the principles of territorial defence system to published in 1973 in the general part of the Field Manual.[40] The Note can also be seen as an interim guidance for conducting the tactical battle that incorporated the battle of general forces and local forces. The need for interim guidance was apparent not only because local forces and their employment were new, but also because the manuals addressing the formation level were also obsolete. Even considering that the principles of territorial defence had been maturing since the early 1950s, the transformation was so dramatic and profound that the War College – the intellectual center for formation level tactics – was unable to develop and write new formation level manuals in time to meet the needs of the forces. Attempts to rewrite a set of field manuals addressing the battle of brigade and army corps were abandoned after three years of work and the War College was instructed to write a less formal and obligatory directive for the formations. [41]

The most important development in the Directive, however, was the explanation of the principles of local defence and its interface with overall battle. Guerrilla warfare was only one, though the most celebrated, part of the local defence. The local defence, as the directive put the subject, was to have several aspects:
(1) To resist invasion from the borders by means of conventional battle, guerrilla warfare, and reconnaissance.

(2) To cover important targets, such as mobilization centers and storehouses.
(3) To carry out independent operations in the areas of secondary importance. These operations were designed to relieve formations and units of the general forces to operational *Schwerpunkt*.
(4) To create circumstances for protracted guerrilla war
(5) To maintain law and order. [42]
The local forces consisted of various categories of forces. Guerrilla warfare battalions were equipped and trained for different aspects of unconventional warfare. Defence battalions were designed for the static role-- to cover and hold an important object such as a harbour or an airport. Independent artillery batteries, usually equipped with obsolete artillery pieces, were to support the battle in the enemy rear. Independent engineer companies were to disperse minefields and demolish targets vital for the enemy, such as bridges. The protection of mobilization centers was tasked to sentry companies. A common feature for all the local forces was that they were to stay behind in the enemy rear to continue fighting if their regional command was overrun by the enemy. Fighting in the enemy rear was only one aspect of local battle. In the areas not occupied by the enemy, the local forces were to hold important targets and to counter special forces and airborne landings.[43]

A new overall war establishment (*perustamistehtäväluettelo, PTL*) and operational plans were integrated in 1972 along with the introduction of new field manual that confirmed the principles of the territorial defence system.[44] The manual consolidated the principles of the tactical importance. The Finnish forces were divided into two functional elements: general forces and local forces; later a third category of forces –support forces – was added to the force structure. Most of the Defence Forces' units were in the pool of general forces, which were designated as "formations and units aimed to conduct decisive operations." The forces falling into a support category included construction and maintenance units. The general forces, as described previously, were allocated to establish operational *Schwerpunkt*. [45]

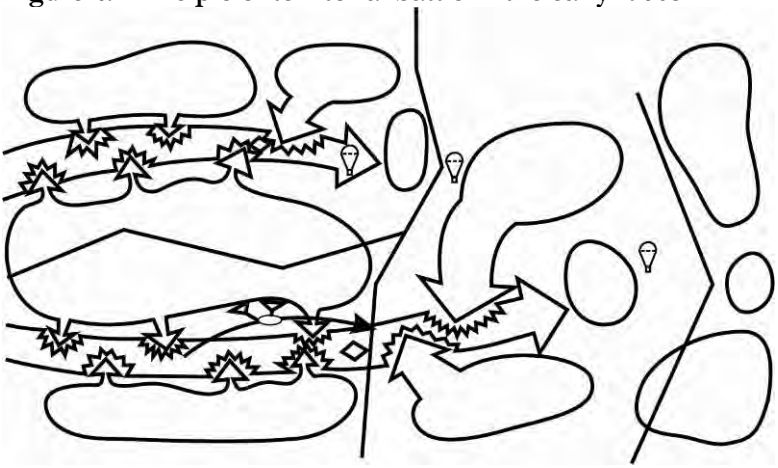
Figure 3: Example of force categories

GENERAL FORCES	LOCAL FORCES	SUPPORT FORCES
Infantry brigade Armoured battalion Artillery battalion[46]	Sentry (*vartio*) company Guerrilla warfare (*sissi*) company Surveillance company	Construction company[47] Meteorological unit Training centre

The capabilities of formations assigned for the general forces varied. Those belonging to the covering forces, the first forces to be mobilized and deployed to cover the general mobilization were relatively well equipped by the Finnish standards. However, in the mid 1960s some 17 brigades belonging to the main forces possessed only 60–75% of the equipment listed in their war time establishment charts. There was a substantial lack of vehicles, communications equipment, ammunition, and personal equipment. In general, the hardware allocated to these formations was also older than in the covering forces, as was the average age of reservists.[48] One may, of course, question the value of such formations. The planned mobilization of even lower category forces was characteristic to contemporary Finnish military thinking and it is linked with the war experience. The lack of adequate reserves at the end of the Winter War nearly caused the collapse of the Finnish defence and the High Command was compelled to throw totally inadequately equipped *ad hoc* units into the front. In the summer of 1944 the Soviet attack was repulsed only after massing all available divisions at the Carelian Isthmus. The Finnish post-war reasoning saw it was better to include inadequately equipped formations in the overall wartime establishment than not to have them at all. In this sense Finland followed the same path as the Soviet Union, which until the end of the Cold War retained a large pool of lower category formations in her overall order of battle. The Finnish thinking reflects rather well also the role of her armed forces. Aimed as a last resort to defend the national survival rather than serve as active tool of policy, the Finnish Defence Forces constituted a poor man's deterrence. A large and motivated reserve of 500 000–700 000 men,[49] even inadequately equipped, would cause any aggressor an unsubstantial amount of trouble compared to the strategic results he was seeking.[50]

The integrated battle of local forces and general forces was to be called territorial battle. It included three features: it was fought in a deep area, it was aimed to repulse or destroy the enemy and it was conducted both by general forces and local forces.[51] The battle at the operational level, at least in theory, was to include three subsequent phases: delay, stabilization and the operational counterattack by the general reserves. The concept of operations was to gradually wear down the enemy and to tier the forces over a large area by employing some of general forces and local forces in delaying actions. After stabilizing the overall situation, the enemy would be blocked in favourable terrain and his supply system and extended communications would be subjected to vigorous guerrilla action. The final phase, as a memorandum presented to President Kekkonen in 1971 put it, would begin in favourable terrain only after the enemy had been weakened and forced to disperse his forces.[52]

Figure 4: Principle of territorial battle in the early 1970s



The Role of the Offence

Although Finland was compelled to adopt the strategic defence within her territory as the basic solution for the defence, the decisive role of offensive was acknowledged. The war experience was conflicting. The most

successful battles of the Second World War finished with the destruction of the enemy forces. The complete destruction of two Soviet divisions in the double battle of Suomussalmi and Raate during the Winter War (1939-1940) are still considered a school example of an annihilation battle. Harsh conditions, combined with superior tactical mobility, enabled Finns to destroy the hapless and passive Soviet formations in the middle of the wilderness. Not only were the Finnish forces tactically superior, but the High Command was able to transfer the participating Finnish forces to another part of the front after finishing the difficult and ruthless operation.

During the attack phase in 1941 the Finnish Army experienced difficulties in penetrating the Soviet defences along the border. The lack of heavy artillery and unimaginative decisions, in hindsight, caused heavy casualties during the frontal attacks. Operations did not become any easier after the initial breakthrough. Apart from certain local success stories, as in Carelian Isthmus where large pool of the Soviet forces were encircled, the Soviets were able to withdraw their forces in relatively good order in the front of Finnish advance. The climax of Finnish art of deliberate attack was experienced in autumn in 1941. A massive and well coordinated fire preparation preceded the assault crossing of River Tuulos. After the Soviet defences were penetrated in a well planned set-piece attack supported by an unexceptionally strong artillery force, the sole Finnish armoured brigade was pushed in to take advantage of the tactical situation.[53]

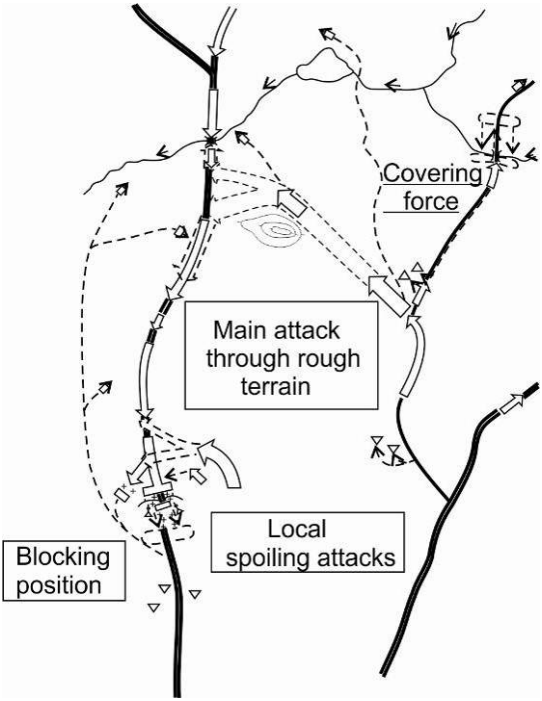
Mikko Karjalainen, the author of a doctoral thesis addressing the role of Operations Division during the Continuation War, argues the matter further. In 1941, the Finnish Army was in the brink of surrounding withdrawing Soviet forces in several instances, but large scale flanking movements were never fully successful. On the other hand, flanking movements and subsequent encirclements were accomplished successfully at the lower level, within battalions and companies. According to Karjalainen, the phenomenon can be explained by the fact that the Finnish High Command was indecisive about the nature of flanking operations in 1941. There were two differing opinions on the execution of envelopment. According to one opinion, envelopment was successful if it gained ground even though the enemy was able to withdraw the most of his personnel. A grimmer view considered envelopment a success only if the enemy forces were completely encircled and destroyed, or taken as prisoners.[54]

The contradictory experience matured for more than a decade. The first post war manuals still addressed a deliberate attack as the most important type of offensive.[55] The Training Directive issued in 1957 had a totally different tone. Due to the mobile and deepened battlefield it stressed the role of the encountering attack. The Directive raised once more the value of terrain as a balancing factor for the Finnish formations. The attacking force was to be divided into two functional parts: a heavily-equipped blocking part operating along a road, and a tactically mobile flanking part that would take advantage of difficult terrain and darkness.[56] The flanking movement through difficult terrain was considered possible at the time as the horse still remained the backbone of the transportation at the battalion level. The infantry battalion, the basic tactical unit at the time, lacked operational mobility but possessed good tactical mobility in difficult terrain.[57] The same basics were applied in the new Field Manual in 1963. Surprise and flanking attacks following the piecemeal destruction of a motorized enemy tied to the roads was to be the primary tactical concept.[58] A flanking movement causing encirclement of the enemy was favored for practical reasons. Finnish formations were no match against mechanized enemy in open terrain, a fact soberly understood by contemporary tacticians. Finnish formations lacked the necessary hitting power and protection to launch frontal attacks against well equipped formations, even if they were weakened by attacks in their rear and their supply system was subjected to guerrilla action.

The Tactical Note for Territorial Defence in 1971 put the offensive into a larger context as a part of territorial battle. The Note clearly saw the corps as a linkage between battles at the tactical level and operational level. In practise, this meant that corps envisaged fighting a territorial battle in a miniaturized scale. A part of the corps would be directed to cover the operational preparations and to win time for the corps commander by delaying the enemy. At the same time, units of local forces subordinated to the corps commander would in cooperation protect important objects and subject communication's targets in the enemy's rear to guerrilla warfare attacks. While the enemy was gradually worn down and the general situation in the battle area stabilized, certain elements of the corps – usually brigades – were to deploy in favourable terrain. After fixing the enemy with the defending brigades, the enemy would be subjected to counterattack by the corps reserves or additional new formations subordinated to the corps commander. The counterattacks were intended

to solve the tactical situation rapidly and to take advantage of heavy and difficult terrain. The idea was to get the attacking force into close-range contact with enemy at the earliest possible moment to prevent the enemy from using his air force and fire power efficiently.[59]

Figure 5: Principle of encountering attack (1957)



A brigade operating independently in large area could be tasked to conduct a three- phased territorial battle not very different form the corps battle. This, however, was considered an exception since usually brigades were merely tactical units operating under the command of a military region or corps. In the offence, an envelopment or attack upon the weak flanks of the enemy was preferred to a frontal attack.[60]

Conclusion

The Finnish post-war tactics were deeply influenced by the traumatic experience of the Soviet offensive in 1944. Two decades following the war were dedicated to develop tactics that would counter deep penetrations. The active use of difficult terrain was in many ways the cornerstone of contemporary tactics. Bottlenecks between dense forests or lakes distinctive to Finnish landscape enabled the blocking of the enemy advance both in defence and offence. Long flanks typical for deep attack were seen as the main vulnerability of a motorized enemy dependant of the constant flow of supplies. The concentrated use of artillery, enabled by technical and tactical innovations made during the Second World War, was to provide cover and support for other arms seeking a close range battle with the enemy. The lack of long range weapon systems was to be compensated for by the ability to move forces through difficult terrain into contact with the enemy.

The tactical evolution did not offer an answer to a larger problem. While an evolution to fight a deep battle against large scale offensive took place in tactical thinking, a strategic surprise attack slowly matured into the main threat. As a result, the Finnish military High Command faced a difficult problem: How respond against both a strategic surprise attack and a large scale offensive under the political framework dominated by the FCMA Treaty with the Soviet Union. It became glaringly obvious that a total revision of the defence system was needed to counter both scenarios and to fulfil the nation's political commitments. Even dramatic changes at the tactical level were no cure for the dilemma of surprise attack. In this light, the development of the territorial battle integrating the local defence and covering the whole Finnish territory, with the action of general forced designed to wage decisive counterattacks, was a sound and practical solution. Since Finland did not have means or political will to extend operations into the enemy's territory it sought deep battle within her own territory. The solution was also politically acceptable, since it was not provocative. Moreover it supported the Finnish neutrality policy because it was not directed against any nation in particular, but acted as means to keep Finland outside of potential conflict between the East and West.

[1] Robert Dalsjö, *Life-Line Lost. The Rise and Fall of "Neutral" Sweden's Secret Reserve Option of Wartime Help from the West* (Stockholm: Santerus Academic Press, 2006), passim.

[2] See Jarkko Vesikansa, *Salainen sisällissota: työnantajien ja porvarien taistelua kommunismia vastaan kylmän sodan Suomessa* (Helsinki: Otava, 2004), passim.

[3] Pekka Visuri, *Pariisin rauhansopimuksen sotilasartiklat: Suomea koskevien rajoitusten synty ja tulkinnat* (Helsinki 1990), passim. For the full text, see e.g. www.jstor.org/stable/2213959?seq=2.

[4] Pekka Visuri, *Idän ja lännen välissä – puolustuspolitiikka presidentti Kekkosen kaudella* (Espoo: Fenix-kustannus 2010), 22–23.

[5] Ibid.

[6] "Puolustusrevision mietintö, 10.3.1949".

[7] Juuso Säämänen, "Taistelualusten hankinnat kylmän sodan ensimmäisinä vuosina" in *Tiede ja Ase 68* (Helsinki: Hakapaino 2010), 227–229. Senior Lieutenant Säämänen is a Ph.D student in the Helsinki University

[8] KA (The Finnish National Archives) T 26965/Hh 10 sal, PvPE (Op-os) unregistered memorandum, 4.4.1951 and T 26962/F3–F4 OT-sal, PvPE 80/Op.1/11b/OT/sal/13.6.1952.

[9] KA T24727/Da 1, Introduction of Finnish military-political situation to the Finnish Defence Council by Lieutenant Colonel Lauri Sutela, 1957.

[10] Vesa Tynkkynen & Petteri Jouko, *Towards East or West? Defence Planning in Finland 1944–1966* (Helsinki: Edita Prima 2007), 83–87.

[11] "Neuvostoliiton aseelliset voimat II Osa" (1961), 71–72.

[12] "Neuvostoliiton aseelliset voimat III Osa" (1962), 8, 19 and 42.

[13] KA T 26965/Hh 10 sal, "Katsaus nykyiseen operatiiviseen puolustusvalmiuteen ja eräitä johtopäätöksiä", 5.10.1966.

[14] Vesa Tynkkynen & Petteri Jouko, *Towards East or West? Defence Planning in Finland 1944–1966* (Helsinki: Edita Prima 2007), 83–87

[15] Vesa Tynkkynen, *Hyökkäyksestä puolustukseen. Taktiikan kehittymisen ensimmäiset vuosikymmenet Suomessa* (diss.) (Joutsa: Nettopaino 1996), 161–163.

[16] T.V. Viljanen, "Nykyaikainen suurhyökkäys ja sen torjumisen edellytyksiä" (1948).

[17] *Kenttäohjesääntö II* (Helsinki: Otava, 1930), 129–130. For the role of the main defence line in the early 1950s, see *Kenttäohjesääntö, II osa* (KO II) 1954, 90–91.

[18] Ari Raunio, "Uudelleenjärjestelyt sekoittavat kenttäarmeijan" in *Jatkosodan historia 4* (Porvoo:Wsoy, 140–154.

[19] Vesa Tynkkynen, *Hyökkäyksestä puolustukseen. Taktiikan kehittymisen ensimmäiset vuosikymmenet Suomessa* (diss.) (Joutsa: Nettopaino 1996), 168–169.

[20] Petteri Jouko, "Suomalainen prikaati" in *Tiede ja Ase 68* (Helsinki: Hakapaino 2010), 128–129.

[21] Eero Metsälampi, "Joukkojen siirrot Karjalan kannakselle kesällä 1944; tutkielma strategisen painopisteen siirrosta meikäläisissä olosuhteissa". Sotakorkeakoulun diplomityö, MSL 19 (1952), Liite 2–3.

[22] *Kenttäohjesääntö II osa* (KO II)(1954), 40–41 and 94–95

[23] Matti Koskimaa, *Veitsen terällä. Vetäytyminen Länsi-Kannakselta ja Talin-Ihantalan suurtaistelu kesällä 1944* (Porvoo: WSOY, 1993), 138 and 155.

[24] *Kenttätykistön taisteluohjesääntö* (KTO I) (1949), 8–9.

[25] See, e.g. *Kenttätykistön taisteluohjesääntö* (KTO I) (1976), 16–17.

[26] KA T 21442/7 b sal, PE:n asiak nro 136/Ohjeiststo/8b sal/16.5.1957, "Taktillisia suuntaviivoja".

[27] KA T 21442/7 b sal, PE:n asiak nro 136/Ohjeiststo/8b sal/16.5.1957, "Taktillisia suuntaviivoja".

[28] *Kenttäohjesääntö, I osa (KO I) 1963*, 166 and 175.

[29] An analysis of guerrilla warfare in the context of overall national defence is being produced by Captain (army) Marko Palokangas, who is currently studying at the Finnish National Defence University.

[30] Mika Huttunen, *Monimutkainen taktiikka* (diss.) (Helsinki: Edita Prima, 2010), 249 and 260.

[31] *Kenttäohjesääntö yleinen osa* (KO yl) (1958), 69–70.

[32] Pekka Visuri, *Totaalisesta sodasta kriisinhallintaan. Puolustusperiaatteiden kehitys läntisessä Keski-Euroopassa ja Suomessa vuosisna 1945–1985* (diss.) (Keuruu: Otava, 1989), 225–226.

[33] KA T 24027/F52 sal, PE:n asiak 237/Optsto/11 sal/17.5.1969, "Sotilaallisen maanpuolustuksen perusteet.

[34] Ibid.

[35] Ilkka Halonen, "Suurvaltojen maavoimien nykyiset hyökkäysdoktriinit ja niiden soveltuvuus oloihimme" in *Tiede ja Ase* (Mikkeli: Länsi-Savon Kirjapaino, 1966), 41–42.

[36] Pertti Salminen, *Puolueettomuuden nimeen. Sotilasjohto Kekkosen linjalla ja sen sivussa 1961 –1966* (diss.) (Jyväskylä: Gummerus, 1995), 323.

[37] KA T 23204/F 259, PE:n asiak nro 2259/Ohjeiststo/7 a, 27.8.1968, "Mellakantorjuntaohjeen jakelu".

[38] KA T 24027/F52 sal, PE:n asiak 237/Optsto/11 sal/17.5.1969, "Sotilaallisen maanpuolustuksen perusteet".

[39] KA, T 23204, PE:n asiak nro 568/Ohjesääntötoimisto/8b, 2.3.1971, "Taktillinen ohje alueellisesta puolustuksesta".

[40] In the Finnish military manual taxonomy, the Field Manual (general part) contained the Finnish military doctrine although it was not explicitly called a doctrine.

[41] Esittely puolustusvoimain komentajalle, KA T 23204/F 314, PE:n asiak nro 3226/Ohjesääntötoimisto/8b, 19.11.1973.

[42] "Taktillinen ohje alueellisesta puolustuksesta" (1971).

[43] Ibid.

[44] Ermei Kanninen, "Development and Role of Guerrilla Warfare and Operations as part of Territorial Defence System in Finland from the 1950s till the 1980s" in *Guerrilla Warfare – An Asymmetric Option* (eds. Jorma Saarelainen & Petri Kekäle) (Helsinki: Prima Edita, 2002), 156–157.

[45] *Kenttäohjesääntö, yleinen osa (KO yl)* (1973), Liitteet 1–2.

[46] Artillery battalion (*patteristo*) was the basic tactical and administrative unit in the Finnish artillery. It consisted of three artillery batteries, each of 4 guns or howitzers.

[47] Construction units were explicitly equipped and trained to build field fortifications.

[48] KA T 26965/F 37 sal, PE:n asiak 506/Lkptsto/da sal/25.11.1966, Liite 12 and T 26842/Ha 5 sal, PE:n asiak nro 17/Lkptsto/10 sal, 3.6.1966.PE

[49] The amount of reservists in the full wartime establishment varied between 500 000–700 000 during the Cold War.

[50] Ermei Kanninen, "Suomen alueellinen maanpuolustus" in *Suomen Turvallisuuspolitiikan perusteet* (Tampere: Hämeen Kirjapaini, 1971), 206–207.

[51] *Jalkaväen taisteluohjesääntö I Osa* (JvO I, Pataljoonan taistelu) (1977), 282.

[52] KA T26965/Hh 9, PEop-os:n asiak R74/Optsto/11/2.7.1971, "Näkökohtia puolustusjärjestelmästämme ja mahdollisuuksistamme torjua hyökkäyksiä Suomen alueelle".

[53] Jyri Paulaharju & Matti Sinerma & Matti Koskimaa, *Suomen kenttätykistön historia* II osa (Pieksämäki: Raamattutalo, 1994), 233–235.

[54] Mikko Karjalainen, *Ajatuksista operaatioiksi. Suomen armeijan hyökkäysoperaatioiden suunnittelu jatkosodassa* (diss.) (Helsinki: Edita, 2009), 280–281.

[55] *Upseerin Käsikirja III osa* (1953), 93 and 119.

[56] KA T 21442/7 b sal, PE:n asiak nro 136/Ohjeiststo/8b sal/16.5.1957, "Taktillisia suuntaviivoja (*Tactical guidelines*)".

[57] Petteri Jouko, "*Suomalainen prikaati*" in *Tiede ja Ase 68* (Helsinki: Hakapaino 2010), 128–132.

[58] *Kenttäohjesääntö, I osa (KO I) 1963*, 122–124.

[59] "Taktillinen ohje alueellisesta puolustuksessa"(1971).

[60] "Taktillinen ohje alueellisesta puolustuksessa"(1971) and *Ohje perusyhtymän taistelua varten* (Helsinki: Valtion painatuskeskus, 1977), IX:4.

Notes