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51013 Tartu, Estonia
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Best regards from the Editor,

James S. Corum PhD
Dean
Baltic Defence College
Tartu, Estonia

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# A Comparative Financial Analysis of Military Expenditures in the Baltic States, 2000-2010

*By Dr. Eric J. de Bakker and Dr. Robert Beeres[1]*
*Faculty of Defence Economics,*
*Royal Netherlands Defence Academy*

## Introduction

The three Baltic states of Estonia, Latvia and Lithuania have undergone dramatic societal transformations since the USSR was dissolved in 1991. For example, one of the significant changes was the creation of an open-market economy. Another was the formation of national armed forces. After an initial transition to full independence, a period that lasted several years, the three Baltic States entered a mature phase of their development in which they developed their armed forces further and moved to integrate their economies and defence forces fully into the Western system. This article will review the military expenditures of the Baltic States in the decade from 2000 to 2010 as a useful case study of the challenges faced by small nations that have to deal with rapid changes in their economic structure while, at the same time, have to provide for their national defence within a new defence structure.

Under the strict former Soviet regime, these countries had functioned within rigid planned economies[2] and individual defence forces had been non-existent[3] During an initial period termed as the "first independence", economic and security issues revolved around former Warsaw Pact countries[4] From the "second independence" onwards, in regard to economic and security matters, the three Baltic countries began to focus their attention more towards Scandinavian and Western European countries.[5] In 1994, the Baltic States became associate members of the European Union (EU) and joined the Partnership for Peace programme of the North Atlantic Treaty Organisation (NATO). As a prerequisite to joining NATO, the Baltic States started to increase their military spending in the year 2000. A structure for the formation of new armed forces that would be based on a NATO-framework was set up. These successful initiatives resulted in NATO-membership being granted in March 2004. In May 2004, EU-membership was also achieved (IISS, 2008). In recent

years, the global economic downturn led to major budget cuts and a decrease in defence expenditures.

The gradual increase of their initial spending followed by a drastic financial cutback is an interesting case to study. This article examines the fluctuations of the Baltic States defence expenditures over the period 2000 to 2010. However, the authors' approach is not to examine each country separately, but instead to look at the three cou8ntries as one entity. In spite of the diversity within the Baltic States in regard to language, history, cultural background, and their economies, they are reasonably alike when examined in their military context. The three states of Estonia, Latvia and Lithuania all face similar security issues due to their geographical location. In addition, all three countries have similar structures for their armed forces and all three countries are NATO members. Consequently, it makes sense to study the military expenditures of the three nations in a comparative manner.

First of all, the economic environment of the Baltic States will be examined. In a Western context, a country's prosperity is generally the decisive factor for determining the amount of money spent on defence. Secondly, the defence funding in the Baltic States will be examined in the context of governmental spending policies and priorities. Thirdly, budget allocation will be analysed; in particular, salary payments, capital investment, and other expenditures.

**Research methodology**

This paper's analysis is based primarily on an examination of the national expenditures over time. The figures used in this study are taken from the official reports and national statistics of Estonia, Latvia and Lithuania. These nations' national statistics all use the same definitions for GDP, government revenue, and expenditure as proposed by the Statistics Bureau of the European Union – Eurostat (2001). This common approach by the three states allows for relatively accurate comparisons to be made.

Each government applies different criteria on how to catalogue figures that relate to their country's defence funding. This creates a challenge on how to find and retrieve this information for comparative purposes from

national data bases in a uniform manner. Whereas one government considers a police force -- with some military elements -- to be part of their armed forces, another government does not. These differences should be noted and accounted for when making a comparative analysis. The calculations to make defence data comparable are done yearly by several organizations: the Stockholm International Peace Research Institute (SIPRI), the International Institute of Strategic Studies (IISS) in London, NATO and the European Defence Agency (EDA). However, these data sets differ due to their sometimes different definitions –or interpretations- of what a defence force is. In this study those differences will be presented. The data with most consistency over time will be chosen for the comparison of the relative national defence efforts. For this purpose, the defence expenditures of the Baltic States are first analysed as a percentage of GDP, and secondly as a per capita expense.

For a study of the allocation of the budget, figures provided by NATO will be used as this organization is the only one that publishes budget allocation figures. The period examined begins in 2004, as this is the year that the three Baltic States became members of NATO. When real expenditures are displayed in this article the year 2000 is used as the standard. For correction of inflation the consumer price index as provided by Eurostat (2011) is used.

**Economic situation in the Baltic States: an overview**

In the beginning of the 1990's, the output of the Baltic States declined dramatically. This was the so-called cost of breaking away from the highly integrated economic system of the former Soviet Union. In Estonia, Latvia, and Lithuania, GDP of 1994 was 61, 51, and 53 per cent of the 1989 levels respectively[6] Gradually, an open market-oriented economy model was embraced as prices were liberalised and enterprises, infrastructure, and financial institutions were dramatically reformed. In addition, the public sector was reduced in size by privatisation of state-owned industries. This was tackled energetically as shown in the transition indexes of the European Bank for Reconstruction and Development (EBRD). These indexes measure on a scale from 1 (little change from a rigid centrally planned economy) to 4+ (representing the standards of an industrialized market economy). In 1999, the combined indexes for

Estonia, Latvia, and Lithuania had already risen to 3.47, 3.13, and 3.13 respectively.[7]

The GDP of the Baltic countries rose, but all three countries experienced a sharp drop in 1998 due to the financial turmoil in Russia and the devaluation of the Russian rouble. This devaluation made the Baltic States less competitive. In addition, the level of exports to the Commonwealth of Independent States (CIS) dropped considerably due to higher import tariffs to Russia.  These actions forced many Baltic producers to seek new markets in Scandinavia and Western Europe.  As a result, the economies of the Baltic countries started to expand significantly during the period studied in this paper (see Table 1).

**Table 1 Trends in Baltic real GDP and GDP per capita (2000 prices)**

| | Real GDP | | | Real GDP per capita | | |
|---|---|---|---|---|---|---|
| Year | Estonia (€ mln) | Latvia (€ mln) | Lithuania (€ mln) | Estonia (€) | Latvia (€) | Lithuania (€) |
| 2000 | 6,160 | 6,760 | 13,246 | 4,498 | 2,849 | 3,785 |
| 2001 | 6,601 | 7,248 | 13,864 | 4,839 | 3,078 | 3,982 |
| 2002 | 7,108 | 7,788 | 14,800 | 5,232 | 3,330 | 4,266 |
| 2003 | 7,862 | 8,399 | 16,365 | 5,808 | 3,611 | 4,738 |
| 2004 | 8,481 | 9,198 | 17,803 | 6,285 | 3,977 | 5,181 |
| 2005 | 9,405 | 10,488 | 19,914 | 6,987 | 4,559 | 5,832 |
| 2006 | 10,790 | 12,134 | 22,040 | 8,031 | 5,304 | 6,494 |
| 2007 | 11,954 | 14,584 | 24,828 | 8,910 | 6,408 | 7,355 |
| 2008 | 11,002 | 13,850 | 25,245 | 8,206 | 6,112 | 7,518 |
| 2009 | 9,449 | 10,835 | 19,886 | 7,050 | 4,806 | 5,955 |
| 2010 | 9,622 | 10,421 | 20,319 | 7,180 | 4,654 | 6,182 |

*Sources*: Statistics Estonia (2011), Latvia (2011) and Lithuania (2011)

Starting in 2003, for a period of five years the annual GDP growth rates increased to over 7 per cent in all three countries, in some cases double digit economic growth was achieved. However, this all ended suddenly with the onset of the global financial crisis. Due to the global economic downturn that emerged in 2007, the economy shrunk in all three countries. Latvia and Lithuania were hit the hardest by the economic crisis. Latvia has been forced to seek €2 billion emergency aid from the International Monetary Fund (IMF). In exchange for this loan, Latvia had

to agree to the enforcement of austerity measures in the public sector that required a major reduction in spending. For example, under the austerity program the public sector wages in Latvia were cut by 35 per cent.

However, Estonia was in the best condition to cope with the onset of the global financial crisis as a result of years of surpluses in the national government budgets. However, Estonia also had to cut its expenditures as the revenue from income and other taxes dropped considerably. If public spending had not been cut, government debt would have risen. Notwithstanding, this would have jeopardized Estonia's aspirations to be accepted as member–state of the Euro zone.

When the three countries are compared, the economy of Lithuania is almost twice the size of the Estonian or Latvian economy (Table 1, columns 1, 2 and 3). However, when GDP is related to the size of the population, it becomes clear that the inhabitants of Estonia have, per head, a higher level of productivity. (Table 1, columns 4, 5 and 6). This means that prosperity in Estonia can be considered to be the highest of the three Baltic States.

## Defence funding: comparisons 2000-2010

*Defence expenditures*
Several international organizations provide figures about defence expenditures.  For example, the data for Estonia is shown (Latvia and Lithuania show similar patterns) in Table 2.  From the year 2004, the data of SIPRI and IISS differ. The data of IISS, EDA, and NATO follow a similar trajectory.

NATO presumably caused the differences between SIPRI and the other organizations.  Since 2004, their policy is that military organisations are only to be considered to be part of defence forces when they, "are structured, equipped and trained to support defence forces and are realistically deployable."[8] The IISS apparently followed this change of policy. SIPRI, on the other hand, relies consistently on a broader definition that includes military forces, "when judged to be trained and equipped for military operations."[9] According to estimates provided by Jane's Sentinel[10] (2011) it can be presumed that this difference of

definition is important for the three Baltic States.  Table 3 summarizes this information.

**Table 2: Estonian defence expenditures (€ mln)**

| Year | SIPRI | IISS | EDA | NATO |
|------|-------|------|-----|------|
| 2000 | 85 | 89 | - | - |
| 2001 | 105 | 106 | - | - |
| 2002 | 130 | 121 | - | - |
| 2003 | 152 | 151 | - | - |
| 2004 | 165 | 139 | - | 147 |
| 2005 | 214 | 171 | 160 | 165 |
| 2006 | 251 | 188 | 188 | 188 |
| 2007 | 325 | 251 | 252 | 271 |
| 2008 | 346 | 307 | 294 | 294 |
| 2009 | 314 | 256 | 256 | 254 |
| 2010 | 249 | n.a | n.a | 251 |

*Sources:* SIPRI: Stockholm International Peace Research Institute (SIPRI, 2001-2011); IISS: International Institute of Strategic Studies (IISS, 2011:470); EDA: European Defence Agency (2007-2011); NATO: North Atlantic Treaty Organization (NATO, 2011).n.a.: not available

In comparison to the active military forces, the reserves of the Baltic States are quite large. These forces have mainly a territorial mission and a regional structure. They are guided and trained by full time officers and instructors. In Latvia, the reserve forces number 1,500 personnel.  The expenditure on these reserve forces are definitely made in service of the national defence. The deployability of these forces, however, will also be limited. This explains the differences between the national expenditures on defence according to the different definitions of key terms by SIPRI, NATO, and IISS.

**Table 3 : Size of military forces in the Baltic States**

|  | Estonia | Latvia | Lithuania |
|--|---------|--------|-----------|
| Active military forces | 5,250 | 5,870 | 7,880 |
| Reserve military forces | 11,500 | 11,000 | 4,600 |

*Source:* Jane's Sentinel (2011)

Due to the change of policy in 2004, the figures of defence expenditures of IISS are less consistent than those of SIPRI. Since this analysis is based primarily on time sequences the figures of SIPRI will be used.

The defence expenditures of the Baltic States have a similar pattern as the economic patterns of those countries. The increase in defence expenditures was carried out mainly in the period of 2000 to 2010, which also saw a sharp drop in defence expenditure at the at the end of this period (see Table IV). The period from 2000 to 2003 shows an increase in national defence expenditures. In particular, Latvia should be mentioned. In 2002 growth in the defence budget was more than 60 per cent! This boost can be explained by the preparation phase before officially joining NATO in 2004. Until 2008, defence expenditures show an ascending trend. This growth showed a uniform trend in Lithuania.

### Table 4 Baltic military expenditures (2000 prices)

| Year | Estonia | | Latvia | | Lithuania | |
|------|---------|----------|--------|----------|-----------|----------|
| | € mln | % growth | € mln | % growth | € mln | % growth |
| 2000 | 85 | | 60 | | 231 | |
| 2001 | 99 | 16.5 | 76 | 26.7 | 245 | 6.1 |
| 2002 | 119 | 20.2 | 123 | 61.8 | 258 | 5.3 |
| 2003 | 137 | 15.1 | 142 | 15.4 | 310 | 20.2 |
| 2004 | 144 | 5.1 | 153 | 7.7 | 324 | 4.5 |
| 2005 | 180 | 25,0 | 178 | 16.3 | 318 | -1.9 |
| 2006 | 202 | 12.2 | 224 | 25.8 | 344 | 8.2 |
| 2007 | 245 | 21.3 | 248 | 10.7 | 381 | 10.8 |
| 2008 | 236 | -3.7 | 261 | 5.2 | 388 | 1.8 |
| 2009 | 214 | -9.3 | 285 | 9.2 | 347 | -10.6 |
| 2010 | 165 | -22.9 | 110 | -61.4 | 256 | -26.2 |

*Source*: SIPRI (2001-2011)

In the other countries, growth was unevenly divided during the period under study. The period after 2008 is characterized by budget cuts. In Estonia, these were gradually increased over a period of three years. In Latvia and Lithuania, on the contrary, defence expenditures declined quickly and sharply.

*Two measures for defence efforts*
Since 1966 the GDP to defence ratio and per capita defence expenditures are considered to be important measures needed to interpret the relative

defence effort of a country.[11] Table 5 presents the GDP to defence ratio for the three Baltic States (columns 2 to 4) and the per capita defence expenditures (columns 5 to 7). The NATO-yardstick for the GDP to defence ratio is 2 per cent; that is the average of European NATO members in 2003.

**Table 5 The Baltic defence burden (2000 prices**)

| Year | D/GDP | | | Defence per capita | | |
|------|-----------------|----------------|-------------------|-----------------|----------------|---------------------|
|      | Estonia (%) | Latvia (%) | Lithuania (%) | Estonia (€) | Latvia (€) | Lithuania (€) |
| 2000 | 1.4 | 0.9 | 1.7 | 62 | 25 | 66 |
| 2001 | 1.5 | 1.0 | 1.8 | 73 | 32 | 70 |
| 2002 | 1.7 | 1.6 | 1.7 | 88 | 53 | 74 |
| 2003 | 1.7 | 1.7 | 1.9 | 101 | 61 | 90 |
| 2004 | 1.7 | 1.7 | 1.8 | 107 | 66 | 94 |
| 2005 | 1.9 | 1.7 | 1.6 | 134 | 77 | 93 |
| 2006 | 1.9 | 1.8 | 1.6 | 150 | 98 | 101 |
| 2007 | 2.1 | 1.7 | 1.5 | 183 | 109 | 113 |
| 2008 | 2.1 | 1.9 | 1.5 | 176 | 115 | 116 |
| 2009 | 2.3 | 2.6 | 1.7 | 160 | 126 | 104 |
| 2010 | 1.7 | 1.1 | 1.3 | 123 | 49 | 78 |

*Source*: SIPRI (2001-2011)

Although the more inflated defence-figures of SIPRI are applied, in general this yardstick has been too high for the Baltic States. Estonia attained the 2 per cent in 2007, 2008 and 2009 and Latvia achieved the 2 per cent in 2009. The increase in Estonia's percentage in 2009 can be explained by a shrinking economy and a gradual decrease of defence expenditures. The relatively large increase of the percentage in Latvia can be attributed to a growth in defence expenditures (see Table 4) and a shrinking economy. The increase of defence expenditures as a percentage of GDP in 2009 also makes clear that such a ratio cannot be the only one used to evaluate defence efforts. More yardsticks are needed. That is where the per capita defence expenditures come in (Table 5, columns 4 to 6). When we consider this measure, a different light is shed on how to interpret the defence effort of a country. Estonia is the highest per capita spender in the period 2001-2010. This is not surprising, since the ratio

GDP per capita was also the highest. The impact of cutting defence expenditures is also evident.

*Government spending priorities: financial policy*
It is interesting to analyse whether defence expenditures align with the overall financial policy of the public sector in a country. For this purpose, a model is used which was developed by V. Lelièvre in 1996.[12] This model was inspired by an earlier system of budgeting policy in the Netherlands. The Dutch Minister of Finance, Zijlstra (1959-1963), considered this model to be of the utmost importance. He argued that a budgetary impulse -- defined as the change in nominal public expenditure and revenues -- should not exceed the budgetary space – which is defined as the extent to which taxes would increase as a result of an increase of the GDP by any given percentage.[13]    According to T. A. Stevers, by introducing this yardstick, Minister Zijlstra was able to silence cabinet members who were demanding for more funds.[14]

In retrospect, using this model, it can be ascertained whether governmental decisions about changes in defence spending are in line with the governmental financial policy. To this effect, the following three separate policies can be distinguished. The first approach is an expansive policy that would boost the economy by either spending considerably more or by lowering taxes. The second approach is a restrictive policy to counter inflation, budgetary deficits, and increasing public sector debts. This is pursued when taking the exact opposite course of action that an expansive policy would dictate.  The third approach is a revenue/spending neutral policy.

These three policies are depicted as shown below. Under the conditions that:
1. $(g - t) > e$, an expansive financial policy is indicated (E)
2. $(g - t) < e$ and $(g - t) < 0$, a restrictive financial policy is indicated (R)
3. $0 \leq (g - t) \leq e$, a neutral financial policy is indicated (N)

In these equations,
$g$ = growth rate of the public sector's expenditure (current prices)
$t$ = growth rate of the public sector's revenues (current prices)
$e$ = economic growth rate (current prices)

In the next step financial policy can be linked to the annual changes in nominal defence expenditure (def = growth rate of defence expenditure in current prices). Tables 6, 7, and 8 connect the above mentioned variables to each other for the period 2001-2010 in the Baltic States.

**TABLE 6 Yearly change in Estonian public expenditures, revenues, economic growth and defence expenditures**

| Year | g | t | g-t | e | ie | def |
|------|------|------|------|-------|----|-------|
| 2000 | | | | | | |
| 2001 | 9.0 | 9.5 | -0.5 | 13.2 | R | 23.4 |
| 2002 | 14.6 | 15.7 | -1.1 | 11.6 | R | 23.7 |
| 2003 | 9.1 | 13.5 | -4.4 | 12.1 | R | 17.2 |
| 2004 | 8.4 | 8.5 | -0.1 | 11.1 | R | 8.6 |
| 2005 | 14.2 | 14.1 | 0.1 | 15.5 | N | 29.6 |
| 2006 | 19.8 | 22.6 | -2.8 | 19.8 | R | 17.4 |
| 2007 | 21.0 | 21.1 | -0.1 | 18.2 | R | 29.3 |
| 2008 | 18.0 | 2.0 | 16.0 | 1.8 | E | 6.5 |
| 2009 | -2.5 | 0.9 | -3.4 | -13.9 | E | -9.1 |
| 2010 | -7.4 | -3.4 | -4.0 | 4.6 | R | -20.8 |

*Notes*:g = growth rate of public spending (%); t = growth rate of public revenue (%); e = economic growth rate, variation in GDP; ie = nature of budgetary impulse (E= expansionist financial policy; R = restrictive financial policy, N = neutral financial policy); and def = variation in defence expenditures. *Source*: Statistics Estonia (2011)

It can be concluded from table 6 that the Estonian Government adhered mainly to restrictive financial policies. Notwithstanding this policy, Estonia increased its defence expenditures. This action was in line with the government's stated goal to achieve a level of defence expenditure of 2 per cent of GDP, which was largely driven by the desire to meet NATO's requirement for a 2 per cent GDP defence spending level.[15]

In the year 2008, government income was well behind the public expenditures, which explains the expansive nature. More was spent on defence, but this percentage kept more or less in pace with inflation that year (more than 10 per cent). In a manner similar to Estonia, Latvia also showed an increase in defence spending, although Latvia's financial policy was neutral or restrictive until 2008 (see Table 7).

**TABLE 7 Yearly change in Latvian public expenditures, revenues, economic growth and defence expenditures**

| Year | g | t | g-t | e | ie | def |
|------|------|------|------|------|------|------|
| 2000 | | | | | | |
| 2001 | 1.7 | 3.7 | -2.0 | 9.9 | R | 28.8 |
| 2002 | 13.7 | 12.9 | 0.8 | 10.3 | N | 66.7 |
| 2003 | 8.3 | 10.3 | -2.0 | 11.0 | R | 18.7 |
| 2004 | 19.8 | 22.1 | -2.3 | 16.3 | R | 14.8 |
| 2005 | 21.1 | 23.2 | -2.1 | 21.9 | R | 24.2 |
| 2006 | 32.2 | 32.0 | 0.2 | 23.3 | N | 33.8 |
| 2007 | 24.0 | 24.4 | -0.2 | 32.3 | N | 21.8 |
| 2008 | 18.9 | 7.1 | 11.8 | 9.5 | E | 13.4 |
| 2009 | -8.1 | -19.3 | 11.2 | -19.2 | E | -34.3 |
| 2010 | -5.6 | -0.9 | -4.7 | -2.7 | R | -27.2 |

*Notes*: g = growth rate of public spending (%); t = growth rate of public revenue (%); e = economic growth rate, variation in GDP; ie = nature of budgetary impulse (E= expansionist financial policy; R = restrictive financial policy, N = neutral financial policy); and def = variation in defence expenditures. *Source*: Statistics Latvia (2011)

The Latvian government had a legally set annual target of 2 per cent of GDP for defence spending.[16] Due to the financial crisis, defence expenditures decreased sharply in 2009. The cuts on Defence are more drastic than for the total public sector. The Lithuanian government had a policy to roughly balance revenue and spending until 2009 (see Table 8). With a growing economy, this explains why the financial policy can be considered to be neutral or restrictive.

**TABLE 8 Yearly change in Lithuanian public expenditures, revenues, economic growth and defence expenditures**

| Year | g | t | g-t | e | ie | def |
|------|------|------|------|------|------|------|
| 2000 | | | | | | |
| 2001 | 0,2 | -1,4 | 1,6 | 6,3 | N | 8 |
| 2002 | 1,1 | 5,8 | -4,7 | 7,1 | R | 5,6 |
| 2003 | 4,5 | 6,2 | -1,7 | 9,4 | R | 18,6 |
| 2004 | 10,6 | 9,7 | 0,9 | 10,1 | N | 5,8 |
| 2005 | 15 | 18,7 | -3,7 | 14,9 | R | 1 |
| 2006 | 15,7 | 15,9 | -0,2 | 14,9 | R | 12,3 |
| 2007 | 23,6 | 21,6 | 2 | 19,2 | R | 17,3 |
| 2008 | 21,2 | 13,9 | 7,3 | 13 | R | 16,5 |
| 2009 | -3,3 | -17 | 13,7 | -17,9 | E | -20,7 |
| 2010 | -3 | 2,5 | -5,5 | 3,4 | N | -13,3 |

*Notes*:

g = growth rate of public spending (%); t = growth rate of public revenue (%); e = economic growth rate, variation in GDP; ie = nature of budgetary impulse (E= expansionist financial policy; R = restrictive financial policy, N = neutral financial policy); and def = variation in defence expenditures. *Source*: Statistics Lithuania (2011)

In 2001, the Lithuanian government committed itself to spend 2 per cent of GDP on defence while arguing that the economy was performing better than expected and that the, "modernisation programme could be achieved with lower levels of GDP expenditure." [17] This goal was changed in 2006, which resulted in an annual budget growth of 0.05 per cent of GDP. Due to the global financial crisis, this goal could not be attained in 2009 and 2010.

**The allocation Of Baltic defence budgets: 2004-2010**

A period of gradually increasing defence budgets, which started in 2000, came to an end in 2007. In recent years, defence expenditures in the Baltic States countries have been reduced considerably. These two facts - an initial budgetary increase followed by subsequent budgetary decrease - make it interesting to see what effect these actions will have on the allocation of the budget in subsequent years. In this section, we will examine, using the distribution figures provided by NATO, the money spent on personnel, on investments in infrastructure, and military systems,

as well as so-called 'other' expenditures that include expenditures for operations and maintenance (O&M). This study starts with the year 2004, when the Baltic States became members of NATO and this data was published in a comparable manner for the first time.

*Personnel costs*

Salaries must be paid, regardless of whether or not budgets have a fluctuating course. This explains why personnel costs have an equable pattern over time (see table 9). Although the Latvian and Estonian armed forces have a comparable manpower, the costs differ, presumably due to the fact that Estonia relies on about 2.500 conscripts as part of its armed forces.[18] In Latvia, conscription was abolished in 2007. Conscripts were partly replaced by well-paid contracted soldiers.

Between 2005 and 2009, the number of conscripts in the Lithuania military was reduced to 2,000 persons. The original plan was to end conscription in 2014, but due to the budget cuts conscription in Lithuania ended in July 2009.

**Table 9 Baltic defence expenditures on personnel**

|  | In € (2000 prices) | | | As a % of defence expenditures | | |
|---|---|---|---|---|---|---|
| Year | Estonia (€) | Latvia (€) | Lithuania (€) | Estonia (%) | Latvia (%) | Lithuania (%) |
| 2004 | 41 | 50 | 134 | 32.8 | 43.8 | 51.1 |
| 2005 | 38 | 64 | 141 | 29.2 | 49.8 | 58.2 |
| 2006 | 36 | 70 | 143 | 26.0 | 39.2 | 54.8 |
| 2007 | 49 | 74 | 154 | 27.0 | 38.9 | 54.7 |
| 2008 | 58 | 88 | 159 | 31.5 | 46.3 | 56.3 |
| 2009 | 54 | 70 | 142 | 34.5 | 59.3 | 60.9 |
| 2010 | 55 | 55 | 133 | 34.5 | 59.0 | 67.0 |

*Source*: NATO (2011)

Shown as a percentage of the total defence budget, the influence of increasing budgets in the midst of the period studied becomes clear. Thus, the figures in Table IX (columns 4, 5 and 6) portray a dip in the middle of the period examined for all three countries. Although Lithuania abolished conscription, the budget cuts still caused personnel costs to rise to over 60 per cent of the total budget.

### Procurement of infrastructure and military equipment

Procurement of infrastructure -- barracks, military airports, harbours, and office buildings -- does show the same stable pattern as personnel costs (Table 10). Although Lithuania relatively spends more on salaries than the other countries, it spends less on infrastructure (Lithuanian spending is more or less on par with other NATO- and EU-countries). This difference is probably caused by the lack of military infrastructure in the two other Baltic States. Priority has been given to building this part of the defence system up.

**Table 10 Baltic defence expenditures on infrastructure**

|       | In € (2000 prices) | | | As a % of defence expenditures | | |
|-------|---------|--------|-----------|---------|--------|-----------|
| Year  | Estonia (€) | Latvia (€) | Lithuania (€) | Estonia (%) | Latvia (%) | Lithuania (%) |
| 2004  | 17 | 17 | 10 | 13.6 | 14.8 | 3.8 |
| 2005  | 25 | 14 | 11 | 19.0 | 11.1 | 4.4 |
| 2006  | 23 | 17 | 9  | 16.4 | 9.7  | 3.5 |
| 2007  | 27 | 31 | 9  | 14.8 | 16.3 | 3.2 |
| 2008  | 28 | 26 | 10 | 15.4 | 13.6 | 3.4 |
| 2009  | 16 | 8  | 6  | 10.0 | 6.4  | 2.4 |
| 2010  | 21 | 8  | 4  | 13.7 | 8.6  | 2.2 |

*Source*: NATO (2011)

The procurement of military equipment shows a different picture (Table 11). At present, Lithuania has on average the highest percentage of the three Baltic States. The main explanation for this varying pattern of investment in weapon systems is that expenditures in this category are commonly used to balance the budget. In 2007, for instance, Estonia had an increase in the budget, which enabled purchases of armoured personnel carriers from Finland and minesweepers from the United Kingdom. However, the drastic budget cuts at the end of the period brought procurement almost to a halt. Investment in weapons can be postponed. In any case, the utility of these systems cannot readily be measured.

**Table 11 Baltic defence expenditures on military equipment**

| Year | In € (2000 prices) | | | As a % of defence expenditures | | |
| | Estonia (€) | Latvia (€) | Lithuania (€) | Estonia (%) | Latvia (%) | Lithuania (%) |
|---|---|---|---|---|---|---|
| 2004 | 15.6 | 8.5 | 32.3 | 12.6 | 7.4 | 12.3 |
| 2005 | 15.6 | 11.1 | 37.0 | 11.9 | 8.7 | 15.3 |
| 2006 | 20.1 | 21.9 | 44.4 | 14.5 | 12.3 | 17.0 |
| 2007 | 42.9 | 18.3 | 52.8 | 23.7 | 9.6 | 18.7 |
| 2008 | 18.6 | 28.2 | 45.9 | 10.1 | 14.9 | 16.3 |
| 2009 | 28.3 | 6.4 | 37.8 | 17.9 | 5.4 | 16.2 |
| 2010 | 18.6 | 6.2 | 18.4 | 11.9 | 6.6 | 9.3 |

*Source*: NATO (2011)

### "Other" Expenditures

The category 'other expenditures', as defined by NATO, is in fact the remainder of the total defence expenditures of a country, after deducting the expenditures for personnel, infrastructure, and equipment as noted above. The largest part of this expense category will be for O&M -- fuel, ammunition, spare parts, and outsourced activities.

What is noticeable in Table 12 is that during the period examined Estonia spent approximately 40 per cent of its defence budget on "other expenditures." This is the highest percentage in NATO for the period studied. Lithuania spent considerably less during this same period. There is no obvious explanation for this. However, one logical assumption might be that Estonia relies heavily on outsourced activities that are part of this category.

The course of expenditures fluctuates. In 2005, Lithuania spent €32 million less than the year before. In 2006, Latvia increased spending considerably (€30 million). In 2008-2009, all three countries spent between €13-20 million less. These spending patterns were a direct result of the financial crisis. These fluctuations are due to the character of the O&M expenditures; and many of these items - fuel, ammunition, and spare parts - are stockable. This means that in "good years" the stocks can be built up and in "meagre" years stocks can be used. However, this can only been done without degrading the effectiveness of the armed forces if the period of budget restrictions does not last too long.

**Table 12 Baltic "other" defence expenditures**

|  | In € (2000 prices) | | | As a % of defence expenditures | | |
| --- | --- | --- | --- | --- | --- | --- |
| Year | Estonia (€) | Latvia (€) | Lithuania (€) | Estonia (%) | Latvia (%) | Lithuania (%) |
| 2004 | 51 | 39 | 86 | 40.9 | 34.0 | 32.8 |
| 2005 | 52 | 39 | 54 | 39.9 | 30.4 | 22.2 |
| 2006 | 60 | 69 | 64 | 43.2 | 38.8 | 24.6 |
| 2007 | 62 | 67 | 66 | 34.4 | 35.1 | 23.4 |
| 2008 | 79 | 47 | 68 | 43.1 | 25.1 | 24.0 |
| 2009 | 59 | 34 | 48 | 37.5 | 28.9 | 20.6 |
| 2010 | 62 | 24 | 43 | 39.9 | 25.8 | 21.5 |

*Source*: NATO (2011)

The fact that both Latvia and Estonia had to withdraw from some NATO-exercises in 2009 demonstrates that budget reductions can be so severe that participation in highly-valued international military operations becomes impossible due to the high costs involved.

**Conclusion**

This paper examines the defence expenditures of Estonia, Latvia, and Lithuania from various perspectives. The commitment of all three countries to spend 2 per cent of GDP on defence, led to substantially higher military budgets. However, Latvia and Lithuania never fulfilled this commitment.

Over the total period examined in this article, defence spending per capita has been the highest in Estonia. However, the effect of the global financial crisis on defence spending has been dealt with in a different manner by each country. While in Estonia the defence expenditures were reduced in a gradual manner, in Lithuania and Latvia the expenditures were cut quickly and radically.

Between 2000 and 2008, the governmental public financial policies of all three countries can be termed as "cautious." In particular, Estonia tried to balance the budget and, due to the rapidity of its economic growth at this time, it did not give into the temptation to spend more. Despite this cautious approach to financial policy, defence expenditures were still allowed to increase. The conclusion can be drawn that in Estonia national

security has been considered to be an important issue on the political agenda. Still, the on-going global financial crisis has necessitated a reduction in spending in Estonia. In Latvia and Lithuania, the cuts in defence spending after the onset of the financial crisis significantly exceeded the cuts in other parts of government.

The allocation of the budget over the various spending categories -- personnel, infrastructure, military systems, and O&M – has differed considerably among the states. The expenditures for personnel have varied considerably -- for Lithuania this expenditure was more than 50 per cent of the budget. At the same time, infrastructure procurement has been relatively stable: salaries must be paid and the soldiers need barracks. Expenditures for O&M and for procurement of military systems are much more volatile because these expenditures can be increased and decreased more easily at the order of the government.

The high percentage of personnel costs in the overall budgets has made it difficult to implement major budget changes. Inevitably, the burden of cuts falls most heavily upon the services' materiel costs. This imbalance that currently exists is harmful for current, as well as for future, military operations.  Thus, as Europe and the three Baltic States emerge from the financial slump that began in 2008, a rethinking of defence priorities and addressing the deferred material requirements of the defence forces of the three Baltic States will have to be a top priority in the national strategic discussions.

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[1] We would like to thank both the students of the Higher Commands Studies Course at the Baltic Defence College (7-8 November 2011, Tartu) and the participants in the Defence Management and Economic Working Group at the third Annual Conference of the International Society for Military Sciences (9-10 November 2011, Tartu) for their valuable comments on an earlier version of this paper

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[7] Ishii and Stern.

[8] NATO (2011) Financial and Economic Data relating to NATO Defence. Available at http://www.nato.int/nato_static/assets/pdf/pdf_2011_03/20110309_PR_CP_2011_027.pdf
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[9] (SIPRI 2010: 209).

[10] *Jane's Sentinel (2011) Country Risk Assessments Central Europe and Baltic States*, Issue no. 27. United Kingdom: HIS Global Limited.

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[14] Ibid.

[15] *Jane's Sentinel, 2011*, p. 98.
[16] *Jane's Sentinel, 2011*, p. 209.
[17] *Jane's Sentinel, 2011*, p. 257.
[18] *Jane's Sentinel, 2011*, p. 99.

# A Delicate Affair – Defence of the Åland Islands During the Cold War  Vae Victis?

*By Petteri Jouko*
*National Defence University of Finland*

"It is in the Soviet interest to obtain bases and installations in the Finland to organise our territory for her own defence purposes. Any attack against her territory could take place either through the Lapland or the Southern Finland. If the Danish approaches are in the possession of the enemy, operations may extend to the Baltic."[1]  This quotation dated 1 March 1948 from the diaries of President Paasikivi vividly describes the Finnish position in the late 1940s. A parallel view had been presented almost three years earlier in an appreciation produced in the Operations Division of the General Staff.[2]  This time this view of Finland's position was expressed by General Erik Heinrichs, the former Commander of the Defence Forces, who now served as an advisor for President Paasikivi who was preparing Finnish response for the letter of *Generalissimo* Josef Stalin suggesting a military pact between Finland and the Soviet Union.

The quotation brings us to the very centre of the Cold War, at least from the Finnish perspective. The Allied Control Commission commanded by the influential and infamous General Andrei Zdanov had left Finland a year earlier after the peace treaty between Finland and the USSR had been signed in Paris.  Finland was still paying her war reparations to the Soviet Union, reparations that were to end in 1952 in the year of the Helsinki Olympics. The treaty of Friendship, Co-operation and Mutual Assistance (FCMA-Treaty), described in the first column, was to be signed within a month.

Finnish political decision-making prior the German attack to the East in 1941 is still debated amongst Finnish scholars.  The issue under debate is whether Finland actively sought an alliance and *revanche* with Germany, or whether Finland was just a passive and helpless player in the forthcoming collision of two superpowers. [3]  Even without further examination one might safely conclude that, in any case, Finnish options were limited – as they generally are with small nations. In the reality of post-World War Europe, Finland's options were even more limited. Politically, Finland was

isolated. From the Finnish view, they had been left to deal with the Soviet Union virtually alone. Great Britain, struggling with her own massive problems, believed that Finland was destined to fade away into the group of People's Democracies ruled by the Soviets.[4] The United States had her own global interests, but Finland was definitely not a top priority. The US political establishment felt sympathy for Finland. After all, the US government had not declared war against Finland during the Second World War. Yet, there was very little the US could do about Finland's political or economic status as the Finnish Government had turned down the offer of Marshall Plan Aid. The Swedes, with whom the Finns share several centuries of common history and culture, were not very optimistic about the Finnish political options.[5]

In the late 1940's the situation was far from clear for the Finns themselves. The FCMA-Treaty brought a mixed reception in Finland. The terms of the treaty Finland was offered were radically different from those signed by Poland and Hungary.[6] President Paasikivi addressed the treaty as a stabiliser between the Soviet Union and Finland, though he considered treaty open for too many interpretations.[7] Another side of the coin and a vision of grimmer future believed likely by some are well illustrated in a thesis of addressing the war of the future and how it would affect Finland. The thesis, written by Major Leevi Välimaa who later became the head of the Operations Division of the army and, without a doubt, one of the best military thinkers in the Finnish Army, described the post war realities in an ideologically polarised world. Välimaa was in no position to influence decision-making or public opinion, yet his pessimistic, even Orwellian, view of the future is worth describing. The war of the future – the Total War – was to be absolute. Since the psychosis of the Total War ruled contemporary thinking, the nature of the future would be nothing less than absolute destruction and devastation until the enemy had been annihilated and ready to surrender unconditionally. In this context, in the ash grey world of political Darwinism, Finland was to be absorbed into the sphere of Soviet strategic interests whether it was legally neutral or not.[8]

The FCMA-Treaty had a clear military dimension. The Parliamentary Defence Committee in assessing the role and tasks of the Finnish Defence Forces in 1949 explicitly ruled out any possibility of war with the Soviet Union.[9] According to the treaty, Finland was obliged to defend her

territory if Germany or her allies sought to attack the Soviet Union through Finnish territory. There was an option to carry out this task in co-operation after military consultations had taken place. At the time of the treaty, and until 1956, the Soviets also possessed a military tool for co-operation within Finnish territory. The Porkkala base – rented for 50 years for the Soviet Government – lay literally within range of the heavy coast defence guns of Helsinki. The base housed a large number of Soviet forces on a high readiness status that could threaten the capitol, as well as an airstrip capable of basing MIG-15 fighters.[10] Political relations between the Soviet Union and Finland were still unsettled and, in the context of the times, the Soviets ensured smooth co-operation along with a real military threat.[11]

## The importance of the Åland Islands

The Åland Islands constitute an important, yet special, region in the Finnish historical and geographical context. They control the route between Sweden and Finland as well as the entrance to the Gulf of Bothnia. During the Swedish rule that ended in 1809, the islands had offered vital base area and effectively covered the sea lines of communication between the metropolitan Sweden and her eastern province. Under the Russian rule, the islands were heavily fortified and at the beginning of the 20th century the military infrastructure on the islands were a part of larger ring of fortifications built to protect Petrograd, the Russian capital at the time.[12] In the aftermath of Finnish War of Independence in 1918, Finland and Sweden both claimed the islands. The League of Nations decided the matter in favour of the Finns in 1921, but not without establishing restrictions that set the area aside as a demilitarised zone during peacetime. This fact complicated defence planning significantly since everything had to be transported to the islands at the eve of the war, or during the conflict itself.[13]

The Finnish defence forces were prudent enough to occupy the islands before actual hostilities both before the Winter War in 1939 and the Continuation War in 1941.  The Soviet base in the Hanko Peninsula, and the occupation of the Baltic States in August 1940, made the Finnish maritime communications especially vulnerable. The Soviet airborne or naval forces based in the Baltic states were a potential threat that could not be ignored. As a result, the occupation of the Åland Islands by the

Finnish forces was carefully co-ordinated during the opening phases of the war. The code name for the operation– "Operaatio Kilpapurjehdus" (a clumsy translation would be something like "Operation Sea Race") – clearly demonstrates the problem of defending the islands. The side that took control of the islands first had a significant, even a decisive, advantage over their adversary. So a Finnish naval task force consisting of the best elements of the Navy and over 20 transport vessels carried an occupation force to the islands as soon the Germans launched their onslaught against the Soviet Union in June 1941. Nothing was left to the chance. The army component included a balanced force of infantry, artillery and other arms.[14]

A great effort was made to fortify the islands both during the Winter War and the Continuation War. In 1944, on at the eve of the Finnish-Soviet armistice, there were some 30 coastal artillery positions at 10 different locations.[15] The Interim Peace Agreement signed in September 1944 obliged Finland to destroy all these fortifications as well sweeping the large minefields that had been sown in Baltic waters. A Soviet liaison team and a consulate was installed at Mariehamn and rigorously supervised the demolitions.[16]

The importance of the Åland Islands was naturally linked with the Finnish economy. The open sea lines of communications were vital for the Finnish trade as the development of industry based on exports. Over a million tons of goods were exported and imported by the sea in 1945. In 1960 the amount of goods transported by the sea had increased almost ten fold, and by 1970 some 32 million tons of goods were either imported or exported by sea – some 85 % of Finland's total exports and imports.[17]

**Secret preparations in the shadow of the red base**

Preparations for the mobilisation and the defence planning ceased during the years of 1944–1948. Only after the Allied Control Commission had left Finland did President Paasikivi authorise such planning in 1948. The very first plan was produced to counter both external threats and internal unrest – there were rumours of a Communist coup> Indeed, military countermeasures to prevent this were taken in 1948. [18] The plan was designed in accordance with the Paris Peace Treaty, which limited the number of Finnish armed forces personnel to 41,900 men. One of the

special tasks assigned in the plan was to occupy the Åland Islands. This was to be done in co-operation between the Army and the Navy. The occupation force was planned to consist of elements of Infantry Regiment 6 stationed in Turku, along with a field artillery battalion. Both units were kept at only part strength and lacked more than half the manpower of the full war establishment. However, this lack of personnel was somewhat compensated for by firepower. Most of the soldiers were equipped with automatic weapons and the heavy battalion of the infantry regiment contained mortars, heavy machine guns and several anti-tank guns, all of which revealed the true nature of the force. It was tasked to repel an amphibious or airborne landing rather than to contain internal problems. An insurgency was not very likely by the early 1950s as only a small part of the population supported the Communists in the general elections.[19] The task force was to be transported to their destination by civilian chartered vessels stationed in the Turku harbour.[20]

The Finnish Navy at the time possessed very limited capabilities because the Paris Peace Treaty had deprived the fleet of its best units such as the submarine and motor torpedo boat squadrons.[21] Still, the Navy planned to put its main effort into the Archipelago Sea between the Åland Islands and the western coast of the mainland. The Archipelago Maritime District was tasked to transport the occupation force to the Åland as well as to direct and protect maritime traffic into the ports. The elements of the 1st Flotilla belonging to the general forces and equipped with the best vessels, prepared to conduct delaying actions and reconnaissance operations in the archipelago of Åland and Turku. The main weapon system, however, was the sea mine. A substantial proportion of all sea mines were planned to be used in the minefields laid in the vicinity of the Ålands Islands and Archipelago Sea.[22]

**Global war in the Baltic?**

There were two operational planning rounds during the 1950s in Finland. Both of the plans were produced in accordance with the commitments of the FCMA-Treaty. Scenario B anticipated Western intrusion to the Baltic and the Åland Islands were in the very centre of the problem. A memorandum, produced in 1951, in other words before the first actual war plan, the islands were to be occupied as a part of an operation aimed to capture larger part of South-western Finland. Furthermore, the idea of

the anticipated enemy was to create an operational stepping-stone in Finland in order to conduct further operations towards Leningrad. [23]

Idea of a massive amphibious operation in the Baltic is somewhat ridiculous in hindsight. Realising NATO's limited capabilities, the concept of massive amphibious operations appears to be absurd. Yet, the US war plans in the late 1940s were more or less atomic variants of the operations carried out during the Second World War. Europe, now under the Soviet rule, was to be re-invaded after a lengthy period of preparations and atomic strikes against the Soviet war-waging capabilities.[24] It is also worth to noting, that only a few years had passed since great amphibious operations such as Avalanche, Dragoon and Overlord had taken place in Europe and soon the Americans would carry out Operation Chromite at Inchon, Korea.

The *de facto* limited resources of the NATO were understood in a contrasting manner.   realised in Finland. An intelligence appreciation produced in January 1953 put the balance of forces in to the right proportion. The balance of conventional forces in Europe was heavily on the Soviet side, especially in the Central and Northern Europe. In fact, the massive re-armament of NATO in accordance with the Lisbon Treaty was not taking place. [25] The first post war defence plan taking advantage of fully mobilised forces had a similar tone. The annex of the plan addressed Finland's position in a conflict between the East and the West. Any large-scale expansion of NATO's capabilities in a near future was considered improbable. If the Western Allies were able to obtain or seize bases in the Baltic, in Gotland for example, the situation would be different. NATO harassing attacks or commando raids could then be expected. What would be the aim of such attacks? Obviously Finland itself was a secondary matter. The idea was indirectly to tie down Soviet forces in the region. The Åland Islands would play an important role in any Western plan. Any action, apart from submarines, was considered hazardous enterprise because of the vicinity of the Soviet base in Porkkala. Another side of the coin was the anticipated Soviet reaction. How would the Soviets react upon a threat against Finnish coast and the Åland islands in particular? According to Finnish reasoning, the Soviets would pay keen attention to the Finnish military actions. The Finnish government and military failing to convince the Soviets on sincerity of their preparations, the Soviets could claim free passage to the Åland Islands and occupy them with their

own forces in spite of Swedish negative reactions. The Soviet demands would not end with Åland Islands as several ports in the Western Finland were needed to support the occupation force. The appreciation caused a sober conclusion. The early occupation of the islands by a strong Finnish contingent was necessary. [26]

The war plan based on successive defence zones with the Åland Islands being an independent outer defence zone in the west. In order to adjust the state of readiness and number of formations to the existing threat, the Finnish Defence Forces created three different organizations to conduct the defence.
(1) Auxiliary Composition (41 900 men, the maximum number of the forces according to the Paris Peace Treaty)
(2) The Covering Forces (15 brigades aimed to support full mobilisation)
(3) The Full Wartime Establishment (27 brigades and 2 armoured brigades).[27]

The Åland order of battle was designed with similar logic of assigning forces to defend the region in accordance with the threat. A Swedish speaking brigade with a small establishment and a coastal battalion was assigned for the auxiliary composition. If the situation developed towards an open conflict, the brigade was to be brought to full war time establishment and reinforced with two coastal battalions designed an equipped for static defence and two mobile coast artillery battalions. In addition, a battery of super heavy coastal guns stored in the Navy Depot was to be installed. [28] The full wartime establishment envisaged an enlargement of the occupation force by another infantry brigade and a corps headquarters mobilised by the War College.[29] The plan included an interesting detail. The first element sailing to the islands was to be dispatched from Tammisaari garrison where the most of the Swedish-speaking[30] conscripts were serving. The decision was militarily absurd as the garrison was in the in vicinity Hanko Peninsula – which was another possible landing area that would require an adequate defensive effort. The Operations Division explained the arrangement by historical sensitivities that extended to the 19th century when the status of an official language was passionately debated in Finland. The Operations Division obviously sought to soften the attitudes in Sweden and among the overwhelmingly Swedish–speaking local population at the Åland Islands.[31]

The Turku Naval Base was made responsible for planning the transportation of the forces. The transport plan, produced in 1954, was divided into three parts, in accordance with different composition of the force. The transportation of the brigade belonging to the Auxiliary Composition was to take five days. The transportation of the covering forces was a task of totally different magnitude – vessels worth of some 45 000 tons was required. Chartering the vessels and their conversion for military use would take a week and the sealift itself was to take another.[32] Possibilities for air transport were vague due to the lack of adequate aircraft. The Finnish Air Force possessed only two DO-2 aircraft suitable for troop movement in the early 1950s and the state owned Aero operated with a meagre force of US surplus DC-3s.[33]

**Five soviet interests anticipated**

The withdrawal of the Soviet Forces from the Porkkala Peninsula in 1956 initiated a new planning round. According to the memorandum by Lieutenant General Ekman, the General Officer in Command of the Second Division, responsible for operational planning and readiness of south-western Finland, the Soviet withdrawal did not change the situation radically in his area of operations. He also reasoned that any attack from the West was not probable unless the Baltic States and Poland had fallen into the hands of western allies. This, in turn, he considered most improbable due to the NATOs military weakness compared with the Soviet Pact. The view is important for two reasons. Firstly, it has survived. A relatively small amount of written appreciations remain in the archives since memoranda written during the planning phase were usually destroyed. The second reason brings us to the unique dilemma of the Finnish planners: the threat and capabilities of the Soviet Union. This makes Ekman's appreciation even more important as he addressed the Soviet Union briefly in the last part of his paper. According to Ekman, The Soviet Union could claim free passage to the Åland Islands on the basis of the FCMA-Treaty. In order to reinforce the free movement, airborne landings were to be placed in the vicinity of the capital. The Soviet involvement on Finnish soil could be linked to internal unrest in Finland. The threat, according to Ekman, could only be countered by occupying the Åland Islands at the earliest possible moment, by holding the capital along with certain areas suitable for amphibious landings, and by maintaining strong reserves for unpleasant operational surprises.[34]

Ekman's view was not without grounds. The Soviet Union possessed substantial capabilities in the Baltic region in the late 1950s and early 1960s. According to the Finnish estimates, the Soviet inventory included altogether some eight airborne divisions of which two were in the Leningrad Military District and one in the Baltic Military District.[35] The Baltic Navy was estimated to include some 500 vessels of different sizes. Although the Soviet Marines were not comparable with its US counterpart, the Soviet navy would able to put ashore some two marine regiments.[36] Although Western intelligence estimates on the Soviet capabilities are not in the scope of this article, it is worth noting that the Finnish appreciation did not fall very wide from the Western estimates. According to the British Joint Intelligence Committee, the Soviets would be able to put some two regiments ashore in the assault wave with some 40 amphibious assault vessels. The lack of specialised craft was to be compensated by extensive employment of merchant vessels in the transportation of the follow on forces likely to consist of four to six Motorized Rifle Divisions. Likewise, the readiness and limitations – such as the limited airlift capability – of the Soviet airborne forces was noted.[37]

## Speed is the vital element – into the 1960s

The new plan, outlined in 1957–1958 did not make profound changes on the status of the Åland Islands' defence. The Southern Command (*Etelä-Suomen Maanpuolustusalue, ESMA*), in co-operation with the navy was tasked to defend the islands and prevent the enemy from intruding into the Gulf of Bothnia.[38] The commands were assigned a specific area of operations in which the defensive tasks were to be performed. These areas were subdivided into successive defence zones.[39] The classification of mobilised formations into covering forces, tasked to cover the mobilisation in the most probable areas of attack, and the main force was maintained. Forces belonging to the first category were usually mobilised by peacetime units and were better equipped than formations of the main force mobilised by the Military Provinces (*sotilaspiiri*).[40]

As far as the Southern Command was concerned, great stress was put on the defence of the Åland Islands. Although the headquarters of the Southern Command (the peacetime headquarters of the 2nd Division) considered large-scale airborne assaults or amphibious landings improbable at the opening stages of war, the islands were still vulnerable

for any attack. As a result, the operations order literally underlined the importance of holding the islands. Sea transportation was planned to take place in stages. The first elements were to sail in smaller craft to enable a landing at the eastern coast of the main island. The covering forces would arrive at their destination by the seventh day of mobilisation. [41] The plan does not reveal exact number of vessels required for troop transport. Obviously it had shrunk significantly from the earlier plans because vehicles of the occupation force were reduced to the absolute minimum. The plan was to use locally chartered vehicles and horses instead of doing time-consuming modifications for the transport vessels.[42]

The covering forces tasked to hold the Åland Islands consisted of a rapidly deployable jäger battalion (JP 30), a full strength infantry brigade, a battalion of a new force category – coastal jägers – and a defence battalion (*torjuntapataljoona*).  Since formations and units deployed to the islands were expected to conduct independent operations, a corps headquarters was also assigned to the covering forces.  The complete order of battle included another infantry brigade and a coastal artillery regiment. The idea of deploying static coastal artillery, presented in earlier plans, was, however, abandoned.[43] The knowledge the about actual training conducted for force movement from the continental Finland at this time is fragmentary. In 1961 the Pori Brigade, responsible for mobilising the stand by battalion tasked to deploy to the Åland Islands, organized a combined arms exercise. The topic of the exercise was to assemble a battalion sized battle group from different garrisons, to load and transport it to a nearby island, and to rehearse in the environment resembling the real operational area. Due to the sensitivity of the subject, only the brigade commander and his chief of staff were told the true nature of the exercise.[44]

Three threat scenarios were revised in Operation Order 15 that was introduced along with the new organisational structure of the Finnish defence forces in 1966. The scenario A was a combination of former scenarios A and B that anticipated threats from Northern Norway and from the Baltic.  Although Sweden would be neutral, aerial attacks via her air space were conceivable. The scenario B contained an option of Sweden being an active part of the Western coalition. The order divided wartime forces into three armies and four independent groups corresponding to the novel peacetime organisation of seven military regions. The South-

western Military Region (*Lounais-Suomen Sotilaslääni*) headquartered in Turku was tasked explicitly to hold the Åland Islands.[45]

The idea of holding the Åland Islands was linked with the definition of the core area. Analysing Finnish geography, the concentration of population and the industrial capacity, the Operations Division designated Southern and Western Finland as the core area for the operational planning. The area, consisting of some 80% of Finland's population and industry, was to be secured in all circumstances.[46] The idea presumably is linked with conceptual base of deep battlefield. The rejection of defence zones and linear thinking was precondition for adapting the mental concept of territorial battle that evolved in the early 1970s.

The new operation order simplified the overall force structure of the Finnish Defence Forces. The auxiliary composition, introduced in 1950 to meet the restrictions of the Paris Peace Treaty, was finally buried. [47] One of the guiding principles was a high level of readiness. The first elements of the stand by forces were expected to be ready for the deployment of their first respective tasks in six hours. The next 30–42 hours saw an augmentation of the stand forces by reservists and materiel. All formations part of the covering forces were to be mobilised in three days.[48]

The headquarters of the South-western Military Region produced several scenarios addressing the defence of the Åland Islands. The basic concept of operations in all scenarios was to move the first elements of occupation to the area as fast as possibly by the vessels of the Navy and by small civilian chartered vessels. Speed was the vital ingredient of the plan. The forces assigned to the task were relatively well equipped by the Finnish standards. The artillery and coastal artillery battalions, for example, were equipped with howitzers (D-30s) and long-range guns (M-46s) purchased only recently from the Soviet Union. [49]

### Were the war plans only a dead letter?

The importance of the Åland Islands for the Finnish overall defence is easy to identify when war games and map exercises are analysed. The Headquarters of the 2nd Division examined options to defend the Åland Islands and South-western coast in 1951. The enemy would conduct a

massive amphibious assault in the basic scenario of the exercise. A deception operation by a glider regiment was conducted at the Hanko Peninsula – a plausible and anticipated area for amphibious landing – while the main force put ashore a divisional sized force at the Åland Islands. The Finnish forces in the exercise consisted of some four battalions supported by field artillery and mobile coastal artillery. The memorandum on the exercise did not address the problem of defending the islands directly, but referred to a problem of having insufficient forces to repulse a division sized attack. [50]

The scenarios of the war games and map exercises arranged in the War College repeatedly dealt with the defence of the Ålands Islands, particularly the exercises of the Naval Branch. A lecture by Lieutenant Commander Jouko Pirhonen in 1947, a student at the time, but the later Commander of the Navy, put the position of the Åland Islands into the relevant context. According to Pirhonen, the Ålands Islands would become the very focus of any operation taking place in south-western Finland.  Amphibious operations aimed to capture the islands would be imminent at the early stages of war, whether the main attack came from the west or the east. The aim of attack from the east was to cut Finnish sea lines of communications towards Sweden and to block the Gulf of Bothnia. If this attack were further directed against Sweden, the role of the islands as a base for further operations would be very important. Attack from the east, were to have similar objectives, but towards opposite direction.[51] During the same period, the Åland Islands and South-Western Finland were the subject of numerous amphibious operations in military staff map exercises. One exercise anticipating that the enemy surprise attack had been successful due to the slow political decision-making in Finland, and thus illustrated the awkward and difficult question of defending the Åland Islands.[52]

An especially useful insight into Finnish operational thinking can be made by studying the material produced in the special courses for the Finnish High Command. The War College facilitated five courses for the military high command (*Ylimmän päällystön opetustilaisuus, YPO*) during the turbulent 1960s. The curriculum for the courses was designed by the General Headquarters which also was responsible for directing the courses. These courses were participated by over 100 colonels and generals during the decade. [53]

The first course, arranged in 1961, had its war game fought in the Lapland. The defence of Åland Islands was discussed during the lectures on the role and tasks of the Navy. The concept of operations was based on early warning and creation of a "poor man's deterrent." Extensive use of sea mines and offensive deployment of mobile naval forces in vicinity of the Åland Islands were aimed to prevent a surprise attack by sea unless the aggressor was ready to risk heavy casualties. An amphibious operations was only one of several possible enemy courses of action. An airborne operation characterised by a very short warning time was considered as an even probability and was seen as even more dangerous than an amphibious attack as the Finnish Air Force was not in position to repel it. The claim – put forward by a navy officer – brought back the demand to have army units *in situ* before the hostilities began.[54]

For the second course, arranged in 1962, a totally different scenario was built.  The scenario was very innovative and contained details that in hindsight are almost hilarious. The Baltic States belonging to the USSR were replaced by an imaginary independent state resembling Poland by its size. A nation of some 35 million people with large and efficient armed forces was postulated to rule the southern shores of the Baltic. This nation proved to be aggressive only after the "Blue Pants Party" (*sinihousupuolue)[55]* had gained power.[56] Plans produced during the course are unfortunately not available, but the basic foundation for the scenario is crystal clear and deadly serious. The scenario offered a hidden opportunity to prepare for the Soviet military capabilities such as amphibious or airborne element that were in the Baltic region. The order of battle used in the exercise had a very close resemblance to the real war plan.

The war game of the third course in 1964 unfolded a strategic situation that envisaged an attack across the Eastern border as well. In the scenario the Yellow Power had invaded the Baltic States and Leningrad. After invading the city of Leningrad the full force of the enemy was turned against Finland. A massive land attack of several corps was to push across the Carelian Isthmus and advance along the Southern coast of Finland, threatening the capital. Although the Åland Islands were not an integrated part of the scenario, their importance was stressed during the course.[57] The War College approached the problem by a special demonstration, which in practise was a war game that simulated operational decisions and movements. An idea of massive amphibious landing was replaced by an

airborne assault of a sizeable force in the scenario. The situation was made exceptionally difficult for the Finnish decision makers because a substantial number of forces were still on continental Finland and the improvised sealift was hampered by ice.[58] Typically, further descriptions of the steps taken in the game or the conclusions are not available today as they were destroyed. The exercises were highly sensitive and any leakage would have caused severe repercussions. A well-known example of this type of event took place in 1965 when Colonel Niilo Riuttala, considered by many as the rising star in the officer corps, saw his career side tracked. Riuttala, who was the first leader of the National Defence Course, used a scenario that involved collision of pacts in the Finnish Lapland. This was reported to President Kekkonen, and Riuttala was soon replaced even though the scenario did not involve any actual fighting between the Finnish Defence Forces and the Red Army. Indeed, any scenario speculating on a Finno-Soviet conflict was a matter of utmost secrecy. [59]

A significant organisational renovation took place at the time of the fourth course in 1966. The peacetime divisions were replaced by seven military regions designed to wage independent operations in the framework of territorial battle that was under a frantic development. Military Regions as the wartime organisation in the operational level were still under development. As a result, the Blue Force still used an army as an operational level[60] composition. The war game addressed defence against large-scale amphibious operation. A large naval component was assembled at harbours of Tallinn and Paldiski and the headquarters of the army group operating against Finland was in Riga, and several formations of the Yellow Army Group were scattered between Tallinn and Riga.[61] However, the Åland Islands were ignored in the scenario and the following war game. The main landings took place at the both sides of Helsinki and at the Hanko peninsula and the decisive battles were fought some 60–70 miles inland.

The last course in the 1960s took place in 1969. The former courses had addressed large-scale operations in the scenarios that anticipated a slowly maturing conflict with gradually rising military-political tension. The concept of strategic surprise as the most dangerous alternative was incorporated into the curriculum. [62] The students were divided into different geographical working groups. The group addressing south-western Finland made a study of the possibilities to defend the Åland

Islands within as scenario of strategic surprise attack. Several tentative measures, such as call up of reservists and constant exercises in the vicinity of the area, were planned to take place during the period of political tension. In order to create a credible defence in the area a minimum force of an infantry brigade, a defence battalion (*torjuntapataljoona)* and coastal artillery units were to be allocated to the task. A battalion- size task force was to reach Mariehamn within 24 hours of being alerted. If the enemy reached the area before the friendly forces, two alternate tactical options would remain. A counterattack by available forces was considered practicable if the enemy was weak. If the enemy had taken the islands by a large force, such as a regiment, recapturing the islands would not be feasible. In this case, the defence would use unconventional means in the form of an infiltrated guerrilla warfare unit.[63]

Another working group deliberated the question of coastal defence. The group made a revealing assumption that linked its planning with the Soviet capabilities. A large-scale surprise attack against Finland was not practicable if the aggressor did not control the Baltic States and the Leningrad region.[64] The assumption was associated with the top secret appreciation made by the Operations Division already in 1960.[65] By concentrating the analysis on the war potential, instead of political commitments, it was very easy to conclude that only the Soviet Union was in a position to make a surprise attack against Finland. Militarily such a conclusion seems trivial at the first sight, but expressing it aloud was an absurd act from the political point of view because of the FCMA-Treaty.

**Conclusion**

The question of defending the Åland Islands accurately reflects the Finnish military thinking and operational problems of the post-war era. The dilemma of political expediency and military realities was very real. There was no other option but to prepare to fulfil the military commitments of the FCMA-Treaty. In this sense, defence planning against a threat from the west was relevant and sensible. In the real world of potentials, estimates and appreciations, the West had no real means to extend operations to the Baltic while the southern shore of the sea was in the firm hands of the Soviet Union and her allies. On the contrary, the only potential, though not likely, aggressor was the Soviet Union. The Finnish military High Command addressed the problem with a analytic

reasoning. Because no support was expected from the West, every mean to fulfil political commitments had to be made. On the other hand, secret measures to counter the Soviet threat were made within the general defence plans. Secrecy and silence were simple tools for such preparations. That a potential threat from the East was a taboo subject was recognised by the Finnish military leadership. Indeed, addressing the taboo was a highly delicate affair.

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[1] *Paasikiven Päiväkirjat , 1 osa* (eds. Jyrki Blomstedt & Matti Klinge)(Juva: WSOY, 1986), 563.

[2] Juuso Säämänen, "Taistelualusten hankintasuunnitelmat kylmän sodan ensimmäisinä vuosina" *Tiede ja ase No: 68/2010* (Helsinki: Hakapaino, 2010), 227–229

[3] Timo Soikkanen, "Uhri vai hyökkääjä? Jatkosodan synty historiankirjoituksen kuvaamana" *Jatkosodan pikkujättiläinen* (eds. Jari Leskinen & Antti Juutilainen) (Porvoo: Bookwell, 2006), 25–44.

[4] Petteri Jouko, "Suomi ja kolmas maailmansota – brittiläinen näkemys 1948–1961" *Sotilasaikakauslehti 10/2002, 26–27.*

[5] Tapio Koskimies, *Puolustuskykyinen valtio vai Ruotsin hälytyskello? Suomen sotilasstrateginen asema kylmän sodan alkuvuosien asiantuntija-arvioissa* (diss.) (Edita Prima oy, 2010), 261

[6] Risto E Penttilä, *Finland's Search for Security through Defence, 1944–89* (London: Macmillan, 1989), 31–32.

[7] Pekka Visuri, *Puolustusvoimat kylmässä sodassa* (Juva: WSOY, 1994), 55–56.

[8] KA SKK 1/354, Leevi Välimaa, "Tuleva sota" (Sotakorkeakoulu, Y 17, 1948), 54.

[9] "Puolustusrevision mietintö" (1949), 14–16.

[10] Petteri Jouko, "Porkkalan sotilasstrateginen asema" *Porkkala – Tapahtumien keskellä* (Helsinki: Edita, 2009), 75–77.

[11] Jari Leskinen, "Parenteesi" in *Porkkala – Tapahtumien keskellä* (Helsinki: Edita, 2009), 50–53.

[12] Markus Manninen, *Viapori. Merilinnoitus ensimmäisessä maailmansodassa 1914–1918* (Jyväskylä: Gummerus Kirjapaino Oy, 2000), 17.

[13] Anders Gardberg, *Åland Islands. A Strategic Survey.* Finnish Defence Studies 8 (Helsinki: Painatuskeskus Oy, 1995), 7–16.

[14] Markku Iskanius, *Vesikuljetukset Suomen sotaponnistusten tukena toisen maailmansodan aikana. Laivamiesten ja ahtaajien sota* (Helsinki: Edita, 2008), 81–82.

[15] Reino Arimo, *Suomen linnoittamisen historia 1918–1944* (Keuruu: Otava, 1981), 484.

[16] Petteri Jouko, "Suunnitelmat Ahvenanmaan puolustamiseksi kylmän sodan ensimmäisinä vuosikymmeninä" *Tiede ja Ase N:o 63* (Jyväskylä: Gummerus Oy, 2005), 24–25.

[17] KA T 26965/E 3 sal, Merenkulkuhallituksen asiak nro 37/Sottsto/711 d/sal, 10.11.1971, "Katsaus Merenkulkuhallituksen Sotilastoimiston toimialan tapahtumineen sekä lähiaikojen kehitysnäkymiin". The most important trade partners at the time were Sweden, Great Britain, Germany and the Soviet Union, see *Statistical Yearbook of Finland* (Helsinki: Valtion painatuskeskus, 1973), 165.

[18] Pekka Visuri, *Suomi kylmässä sodassa* (Keuruu: Otavan Kirjapaino Oy, 2006), 94–96.

[19] *Statistical Yearbook of Finland* (Helsinki: Valtioneuvoston kirjapaino, 1954), 323 and 325.

[20] Petteri Jouko, "Suunnitelmat Ahvenanmaan puolustamiseksi kylmän sodan ensimmäisinä vuosikymmeninä" *Tiede ja Ase N:o 63* (Jyväskylä: Gummerus Oy, 2005), 27–28.

[21] Oiva Koivisto, "Uudelleenjärjestely- ja jälleenrakennuskausi" *Suomen laivasto 1918–1968, II osa* (Keuruu: Otava, 2008), 376–383. This edition is a facsimile copy of the book published in 1968.

[22] KA T 26862, Laivaston Esikunnan asiak 223/Op/OT/10 d/sal, 8.12.1951, "Suunnitelma laivastovoimien käytöstä t- ja su-kokoonpanoissa".

[23] KA T 26965/Hh 10 sal, Pääesikunnan operatiivisen osaston numeroimaton muistio, 4.4.1951, "Valtakunnan puolustusvoimain yleisen käyttösuunnitelmat".

[24] Pekka Visuri, *Totaalisesta sodasta kriisinhallintaan* (Keuruu: Otava, 1989), 94–98. See also, Michio Kaku & Daniel Axelrod, *To Win a Nuclear War. The Pentagons's Secret War Plans* (Boston: South End Press, 1987), 59–61.

[25] KA T 26965/F 6 sal, Pääesikunnan Ulkomaaosaston tiedotus 3/1953, 13.1.1953.

[26] KA T 26862/F 3 OT-sal, PvPE:n asiak 80/Op.1/11 b/OT/sal, 13.6.1952.

[27] Ibid.

[28] KA T 24786/ OT 2, 2.DE:n asiak nro 190/Järj/OT/11 sal, 12.6.1953.

[29] KA T 24786/ OT 2, 2.DE:n asiak nro 467/Järj/OT/11 sal, 29.10.1953.

[30] Finland has two official languages by the law: Finnish and Swedish. Swedish speaking conscripts were (are) offered an option to serve in the Swedish speaking formation (4. Brigade, from 1953 Nylands Brigad).

[31] KA T 26862/F 3 OT-sal, PvPE:n asiak 80/Op.1/11 b/OT/sal, 13.6.1952.

[32] KA T 26862/E 5 OT-sal, Merivoimien Esikunnan asiak nro 93/Järjtsto/OT/11 b sal, 25.5.1954, "Saaristomeren kuljetussuunnitelma".

[33] Vilho Lukkarinen & Veli Pernaa, *Suomen ilmavoimat 1944–1980* (Jyväskylä: Gummerus, 2008), 88.

[34] KA T 22003/F 2 OT-sal, 2.DE:n asiak nro 48/Optsto/OT 11 b sal, 18.5.1956.

[35] *Neuvostoliiton aseelliset voimat, osa II (Maavoimat)* (1961), 69–71.

[36] *Neuvostoliiton aseelliset voimat, osa III (Merivoimat)* (1962), 4–6 and 19.

[37] TNA (The National Archives) CAB 158/51, JIC (64) 1/10 Final, 30 October 1964, "Periodic Intelligence Summary for NATO Commands" and JIC (64) 3, 28 February 1964, "Soviet Bloc War Potential 1964–1968".

[38] KA T 26862/ D4 OT-sal, PE:n asiak nro 50/Optsto/OT/11b sal, 27.2.1958.

[39] KA T 26862/D 3 OT-sal, PE:n asiak nro 180/Optstto/OT/11 b sal, 17.12.1957.

[40] KA T 26965/F 37 sal, PE:n asiak nro 506/Lkptsto/da sal, 25.11.1966.

[41] KA T 25188/F 1, 2.DE:n asiak nro 6/Optsto/11 henksal, 24.1.1961.

[42] KA T 23919/ F 2 sal, 2.DE:n asiak nro 269/Optsto/10 sal, 11.12.1961.

[43] KA T 26862/D 3 OT-sal, PE:n asiak nro 180/Optstto/OT/11 b sal, 17.12.1957 and D 4 OT-sal, PE:n asiak nro 111/Meriptsto/OT 10 sal, 9.5.1960, "Esittely puolustusvoimain komentajalle rannikkojalkaväen kehittämisestä". Originally, Coastal Jägers were not part of the order of battle because the force category did not exist in 1957. In the late 50's and the early 60's planning oraganisations had a bad habit of updating existing oreders by replacing individual sheets by a new ones. This has unfortunately taken place in this document also. It is justified to expect that not a single copy of original plan exists.

[44] KA T 25188/F 1 henksal, 2.DE:n asiak nro 41/Optsto/11 henksal, 21.8.1961.

[45] KA T 24784/F 1 henksal, PE:n asiak nro 15/Optsto/11 henksal, 15.6.1966, "Pääesikunnan operatiivinen käsky numero 15".

[46] Vesa Tynkkynen, "Puolustusjärjestelyt" *Suomen puolustusvoimat 1944–1974* (WSOY, 2006), 453–454.

[47] KA T 24784/F 1, PE:n asiak nro 10/Optsto/11 henksal, 25.5.1966.

[48] KA T 26862/Ha 5 sal, PE:n asiak nro 17/Lkptsto/10 sal, 3.6.1966, "Muistio suojajoukoista verrattuna päävoimiin".

[49] KA T 25190/F 2, LSSLE:n asiak nro 101/S2 sal, 26.9.1966.

[50] KA T 22573/F 4 sal, 2. DE:n asiak nro 10/Koul./5g 2 sal, 21.4.1951.

[51] KA  T 21369/Dg 125, komentajakapteeni Pirhosen ja Turkin sotilasmaantieteen alustus, 15.5.1947, ”Suomen rannikon tärkeimmät maihinnousukohteet ja operatiiviset tavoitteet”.

[52] KA T 21369/Dg 125, Sotakorkeakoulu (MSO 3), 18.10.1948, ”Meritaktiikan karttaharjoitus”.

[53] KA T 26965/Dk 5 sal, PE:n numeroimaton kurssikertomus YOP 5:n toteutuksesta, joulukuu 1969, Liite 4.

[54] KA T 26965/Dk 1 sal, Alustus Ylimmän päällystön opetustilaisuudessa ”Ilmavaaran vaikutus merivoimiin, merisodan luonne Suomen olosuhteissa. Suomen merivoimien sotatoimien päämäärä ja Ahvenanmaan puolustus merivoimin”.

[55] Although the ”Blue Pants Party” raises merely amusing associations, Finnish, or actually Swedish history has an era when competing parties were named after a certain piece of cloth. The war between Sweden and Russia in 1741–1743 is commonly called as “Hattujen sota” or “Hattarnas ryskä krig”.

[56] KA T 26965/Dk 2, Ylimmän johdon opetustilaisuus 2, 14.5.1962, ”Strateginen tehtävä 1”.

[57] KA T 26965/Dk 3, Sotapelinkäskyn liite 2 ja jatkotilanne sotapelikäskyä varten.

[58] KA T 26965/Dk 3, PE:n numeroimaton asiakirja, 13.2.1964, “SKK:n järjestämä näytösharjoitus 10.4.1964”.

[59] Pertti Salminen, *Puolueettomuuden nimeen. Sotilasjohti Kekkosen linjalla ja sen sivussa 1961–1966* (diss.) (Helsinki: Suomen mies, 1995), 281–282.

[60] Operational level of war was not explicitly defined at the time. *Kenttäohjesääntö I* (1963) addressing the formation level tactics did not actually recognise the term.

[61] KA T 26965/Dk 4 sal, PE:n numeroimaton asiakirja, 28.10.1966, ”Jatkotilanne 1”.

[62] KA T 26965/Dk 5 sal, PE:n asiak 3/Koul-os/5 henk sal, 28.2.1969.

[63] KA T 26965/Dk 5 sal, YPO 5, LSSLE:n työryhmän ryhmätyö.

[64] KA T 26965/Dk 5 sal, YPO 5, Meripuolustuksen työryhmä, 17.10.1969.

[65] KA T 26965/ Hh 10, PE:n operatiivisen osaston numeroimaton muistio, 11.11.1960, ”Suomen strateginen asema ja Suomen puolustukselle asetettavat strategiset perusteet”.

# Ensuring Effectiveness in the Libyan Operation

*By LtCol Juha Mälkki**
*Doctor of Social Sciences*
*Personnel Division*
*Defence Command Finland*

Recent decades have demonstrated not only the supremacy of NATO's military effectiveness, but more often that of the US Military in various operational areas throughout the world. The technological advantages of the US Military, in particular, in conducting the full spectrum of operations, are beyond those of any other nation's resources. Furthermore, it is clear that according to US Military doctrines the most preeminent method of winning wars today is by using simultaneous effects against selected enemy structures. This method is understood as being the most effective in preventing any 'war of attrition' that would result from the use of the sequential method - a situation that the NATO operation in Libya was understood to have drifted towards just a few weeks into the battle.

In this article I will argue that the discussion of simultaneous versus sequential effects is at the core of the operational art of war. This, in turn, can shed light on the difficult concept of the "operational approach", one of the most important elements of "operational design" in the US Army Field Manual 3-0 (FM 3-0) 2008 edition. In FM 3-0 the operational approach is divided into direct and indirect methods. In this article I will suggest that these important terms should be connected more closely to sequential and simultaneous effects.

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## Practice and theory in military operations

Still, it is the task of military science in an age of peace to prevent the doctrines from being too badly wrong.

*Sir Michael Howard, 1974*

This article, as its title suggests, aims to address the efforts undertaken to ensure the effectiveness of operation Unified Protector, which in early 2011 set out to protect civilians in Libya, to force an immediate ceasefire of the warring Libyan factions, and to establish a no-fly zone over Libya (as determined by Security Council Resolutions 1970 and 1973 in February and March 2011). This article will not try to assess the future of the Arab Spring in Libya or the post-Gaddafi domestic and foreign policy in the North African region. The focus is on NATO battle concepts that were available at the time of the operation and their possible influence on the actual design of the operations and the execution of the coalition plans. The battle concepts described in field manuals or other texts that describe the use of military power are not just sources of military thought for their immediate users, but generally offer a source of basic military thinking.

Field manuals are written to serve as a statement of how military action should be performed, and how its actual effectiveness is planned to be achieved. They are crafted to ensure among the armed forces a minimum of understanding of how the participants in military action should play their role inside that of the broader organisation. These manuals should also be understood as being a source of military thinking, containing a theoretical understanding of the use of military power in various circumstances. In the US military several different doctrine-like concepts have been published during the last decades, filling some of the gaps both in military thought and in general thinking. The appearance of the terms Shock and Awe, Effects-Based Operations (EBO), Rapid Decisive Operations (RDO), Operational Net Assessment (ONA) and System-Of-Systems Analysis (SOSA) are indications of a willingness to find answers to the problem of understanding complex military operations. The concept of Effects-Based Operations (EBO), highly topical during the Libyan civil war, is a concept of "how to do it."[1] The concept of the Effects-Based Approach to Operations (EBAO) is, on the contrary, a method of implementing EBO practice as a way of thinking about military

effectiveness.[2]  The other question is whether these concepts are merely concepts, or even military theories. Milan Vego, currently a professor of military theory, accuses these systemic-based concepts of being pseudoscientific, as they are not based on theoretical considerations, but merely on assumptions of how to utilize modern technology in war.[3]

Every military conflict is different in its conduct. The brutality evident in civil wars was revealed in Libya only occasionally, as we do not know for sure much of the true circumstances and the conditions of this war. Furthermore, the NATO operation remained 'clean,' and there is no emerging evidence of violations of UN resolutions or of international law by NATO forces. The theme of effectiveness in current operations is a topic that is widely discussed. In this article, however, military effectiveness is understood as being a true derivative of military efficiency in military operations. It is understood as a point of departure and as a process where the military converts its animate and inanimate capacities into fighting power.[4] In this article I assert that the true effectiveness of military action and the necessary extension of military actions can only be detected during reciprocal action between the belligerents, seen in both the physical and psychological spheres of the conflict and in the centre of the clash of wills. This hypothesis is an important part of Carl von Clausewitz's argumentation about the nature of battle, that is, it is always a human interaction and therefore reciprocal in its nature.[5] To transmit the reality of a battle to the higher levels of warfare analysis is a matter that must be handled detail by detail, as the complexity of a battle is not easily transferred to the higher echelons of planning and design. The data collected from the tactical level and from the strategic level are not comparable as such, and therefore the iterative process of designing operations is more complicated than the making of mere mechanistic assumptions, where causal chains can predict the future. Hence, the destruction of the opponent in complex modern conflicts is not the true measure of effectiveness, as conflicts are not solved only through military capabilities, but by understanding the true nature of the conflict. Or as Mao Tse Tung argued:

> It is well known that when you do anything, unless you understand its actual circumstances, its nature and its relations to other things, you will not know the laws governing it, or know how to do it, or be able to do it well.[6]

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In this article, the main emphasis is on answering the following questions:

1. Why was the combination of sequential effects and indirect approach effective in the Libyan civil war?
2. What is the role of operational art in modern warfare, especially in conflicts resembling the Libyan civil war?
3. How can the process of Operational Design (OD) be made more flexible when responding to complex military missions?

## Method

Colonel (ret) John Warden, the famous air war theorist writing in the early 1990's, highlighted the importance of the deductive approach as a strategic way of seeing the world and its phenomena. He used the comparison of architect and bricklayer as an example to manifest the differences between the strategic and the tactical orientations. Architects had, according to Warden, a strategic importance in making the plans for war (using the method of deduction, from the general to the specific). Bricklayers had the important role of doing the actual work, like soldiers and lower echelon leaders have their role in doing the actual fighting (using the method of induction, from specific observation to general conclusions). This was important at the tactical level, but is always subordinate to strategic level considerations.[7] Hence, the inductive and deductive methods are understood as being the exact opposite of each other. According to Huba Wass de Czege, the American war theorist of our own time, this dichotomised set-up should be understood as parallel to the relationship between tactics and strategy,[8] although these are not normally understood as being the exact opposite of each other. Wass de Czege suggests that we should, in order to understand the true nature of these levels of war, keep them separate. He emphasizes the role of operational art in between them, a certain intellectual meso-area, between the extremes. The debate between micro and macro is broad, and in this article there is no intention to minimize the debate between them.

The deductive method may have its roots in studies concerning strategic questions and in macro-economic considerations. It is apparent that economics is the dominant science of our age, as it has influenced the military theoretical considerations of the last decades. The deductive method is, therefore, mainly focused on analysing a war and its political,

diplomatic, military, economic and informational aspects.[9] These studies do not, however, observe the battlefield as a human phenomenon, although military theories are understood as being derived from practice and from a multitude of empirical examples as in many other disciplines. In this article, the methodological aim and the challenge of explanation is based on justifying the combination of military practice at the tactical level, (the realm of inductive experiences), and the broader considerations of the strategic level (with its more deductive approach to the subject of warfare). The interaction between these levels is a matter of great difficulty. Therefore, it is assumed that abductive reasoning into these levels of war may have a crucial role in understanding the methods needed in describing and defining, but also in mastering operational art, namely, the realm located between the levels of tactics and strategy.

In terms of structure, this article sets out to form a continuum from defining and depicting the problem of the role of the battle in modern wars to the criticisms that were directed at the realization of NATO's Libyan operation. The focus is on the phenomenon of warfare and how it is understood as being observable. These first two sections will provide a setting for the next two sections, where the Libyan operation will be used as an empirical case study to justify a critique of the current practice of operational planning and of modern (US Military) ideas concerning operational art. These latter sections will draw together the tactical and strategic level methods of understanding military operations into the art of campaigning. These sections and the conclusion are, themselves, mainly based on abductive reasoning and a new hypothesis about the context of operational art and design.[10]

## The role of battle – the changes and the permanent features

According to FM 3-0, land operations are dominated by, "chaos, change and friction, much today as when Clausewitz wrote about them after the Napoleonic wars" (FM 3-0, viii). This idea is widely understood as a true and objective description of the battlefield and its features, and one that has remained unchanged over centuries of warfare. Indeed, it is remarkable to think that there might ever have been any intention to prevent such "friction" and "chaos" at all.   Clausewitz's statement becomes all the more notable when we consider the suggestion, implied by FM 3-0, that friction has always been, in fact, a permanent feature of

human performance in the lower and the upper levels of the organisation of warfare. According to Clausewitz, this is why the organisations will, eventually, fall short of the intended goals,[11] as no war plan will outlast its first encounter with the enemy. [12] Clausewitz defined friction as the only thing that distinguishes real war from war on paper. There were, however, two different kinds of friction in Clausewitz's thinking: general friction and friction in the narrow sense. They both make the simplest thing difficult in real war, but it is friction in the narrow sense that has made warfare complex and almost impossible to predict. This aspect of friction is rarely presented, because it is not based on disadvantages or disablements that are inherent in the environment or action, instead, it clings deeply to the field of our cognitive and emotional awareness. Clausewitz indicates that in order to overcome friction, one must know it. Namely, knowing friction would require us precisely to be aware of that in nature of our thinking which is not parallel to what we would like to believe.[13]

Clausewitz emphasized the human approach and the inductive method in his analyses of warfare. Hence, the inductive method is needed, especially if the objective is to assess real wars. This idea motivated Clausewitz to form a concept that would describe the nature of war, namely the extremes in warfare (*die Äußerste*), where human experience is given high priority. According to Clausewitz, there are three levels of extremes. The first is concerned with issues that take place before the actual fighting has begun. It is the level where hostile intentions are elaborated and a warlike atmosphere created. It is also the level of what today we would call 'the media': the point at which the nationwide climate of opinions is flourishing and where everything is descriptive and rhetorical. The second level of extremes is the phase when the belligerents are preparing and actually facing each other as living forces. It is the moment of the clash of intentions and reciprocal action. Nevertheless, it is not until we have reached the third extreme (of human experience) that real warfare reveals its devastating nature, to the human body and the human mind. During this extreme, the fighting forces must prepare to face real war.[14] This third extreme will reveal not only the real war but also the effective means to subdue the enemy. What Clausewitz tried to transmit to posterity was an understanding of the true meaning of reciprocal action as an open system, but he also called into question those methods that would determine the future, especially if it was deducted by the estimates made in the "first

extremity". This is a criticism of the idea in which the strategic level end states are transformed into tactical action and in which tactical action has insufficient influence on strategic level considerations.

> If necessary combat power cannot be massed simultaneously, commanders apply it sequentially. This approach is called attrition.
> (FM 3-0, 6-42–6-43)

This example from FM 3-0 is illustrative and descriptive. It seems that the proper, initial effectiveness should be concentrated on the early phase of the armed confrontation, and not applied sequentially. This is also the main argument in Deptula's famous concept given in *Effects-Based Operations: Change in the Nature of Warfare (2001)*. There is not, however clear evidence of how this concept would eventually make real changes in the nature of warfare. The conduct of war has changed, following technological changes, but that in itself will not automatically lead to a change in the nature of warfare.[15] Systemic-based concepts are thus receptive to the idea that the role of reciprocal human interaction is marginal, as the manmade structures, namely politics, economics, the military; society and infrastructure are all interconnected. Hence, these can be controlled by systemic-based concepts, especially if the belligerents are kept apart from physical interaction with each other and if close combat is being avoided. This dichotomous set-up of simultaneous and sequential methods is of crucial importance if the preference is not just for efforts that will merely terminate the war, but for those that will make a better peace.

System-based thinking was a product of the preceding two decades, although claims have been made that military theorists such as Marshal Mikhail Tukhachevski (1893–1937) were already actually writing in favour of system-oriented thinking.[16] The process that would bring about the disruption of the enemy system - or operational shock (*udar*) - was understood as being a matter of generating sufficient speed and proper resources. It is worth noting that the enemy's critical vulnerabilities were to be exposed to such attempts at creating operational shock well before any execution of the plans revealed any deficiencies in them. According to the thinking, it was possible to locate the physical targets even before the first projectiles had been fired, and in this way system-oriented thinking

enabled the analysis of the potential threats that are understood as permanent in their nature. This kind of method of prearranged targeting is perhaps ideal for the modern media that understands the world in terms of clear causes and effects.

In reality there are differences in systemic-based concepts as they can be defined within the categorizations of closed or open systems. The US military's Effects-Based Approach to Operations (EBAO) is understood as being a closed system, or isolated system, and the Israeli Defence Force's (previous) concept of Systemic Operational Design (SOD) is an open system.[17] Hence, the open system is the one that is in constant interaction with the environment and in constant flux, where one element, or its relationship with another, will result in changes elsewhere. Despite the obvious advantages when compared to a closed system, the SOD concept faced serious critics among the Israeli military during the Lebanon conflict of 2006 as the new terminology turned out to be too ambiguous for tactical level leaders. The troops were even ordered to make the enemy feel "distress" or "chased down."[18] The problem lay in the idea of connecting the aims of the entire military operation (strategy) with the level of engagements, enabling the direct link between the politics and the actual implementation of the military efforts.

It must be borne in mind that the military classics depicted reciprocal action as a self-evident fact. It was understood as a basic element in war, where there were two or more belligerents with hostile intentions even though there are differences in how reciprocal action was defined in different circumstances and environments of war. Clausewitz, for example, saw reciprocal action as an unavoidable circle of violence because each side is willing to subdue the other party. These "extremes" in war place an important demand on those who prepare to wage war, as he suggests that reciprocal action should be continued from the first until the third extremes. If the other side is not ready to continue this kind of reciprocal action, but is destroyed in spite of it, the fundamental idea and true effectiveness of the war are missed. Clausewitz called this kind of "one-sided" execution a slaughter and not a war.[19] We may conclude that he conceived of war as a chivalrous play with noble intentions. The other deduction would lead to understanding the true meaning of warfare as a violent social interaction that will be needed, on all its levels, if permanent political solutions are to be found. The collapse of "the systems" was not

a method that Clausewitz tried to achieve, but rather the "system-shock" to human emotions that would ensure the results that were experienced during the second and third extremes.

Nevertheless, the military classics concentrated on finding solutions that would reduce the adversary's opportunities for dominating the battlefield.[20] Victory was never a self-evident fact. Therefore detailed knowledge of the adversary as well as the nature of the contemporary battlefield was the highest priority. It was not until the appearance of system-based concepts during the late 1990s that these displaced the military classics from their traditional role, as the classical theories could not depict warfare bearing the features of modern technology and current societies.[21] Similarly, the possibilities of the operational approach, as a link between planning and execution, were lost. In addition, the constructive relationship between the tactics and strategy grew dimmer, as the timing and the sense of rhythm between the battles were understood as being impossible to predict.

## Libya 2011 - criticisms of insufficient military resources

The recent crisis in Libya - a civil war with multinational interests - demonstrated to the Western armed forces that without sufficient military resources the time needed in suppressing resistance would be prolonged. If we believe the press, there were constant threats that NATO forces involved in the operation would fail due to the lack of resources. Interestingly, this idea is almost copied from FM 3-0 (6-94). In Libya, it seemed that NATO no longer possessed sufficient capability to maintain the tempo required during the operation. US Secretary of Defence Robert Gates even criticised the European NATO countries for their reluctance to provide sufficient resources for this specific operation, although he admitted that the courses of action in Afghanistan and Iraq may have had a negative influence as the requirements for a Western coalition military presence in those theatres had continued for years. Ultimately, the two million soldiers that the NATO countries have in their domestic resources are not used in military operations as such, but for national defence purposes. Gates commented on Afghanistan in particular:

> I suspect many allies assumed that the mission would be primarily peacekeeping, reconstruction and development

assistance – more akin to the Balkans. Instead, NATO found itself in a tough fight against a determined and resurgent Taliban returning in force from its sanctuaries in Pakistan. [22]

Perhaps the NATO countries are actually preparing for different kinds of wars and perhaps for different national defence purposes. The French armed forces are, at least, preparing to use their forces to, "intervene primarily within systems characterised by chaos, the violation of the rule of law or the threat to peace in order to facilitate the restoration of a stable social and political system." In France, they do not believe that with the use of armed forces in the fighting it would be possible to have direct outcomes, as "today's theatres of operations only lead to the establishment of minimal conditions for strategic success.[23] The media failed to realize that NATO did not aspire to defeating the Gaddafi regime through NATO's own military capabilities. At least this was not considered possible due to the lack of resources. In addition, it was stated in official NATO web pages that, "NATO is doing nothing more, nothing less, than meeting its mandates."[24]

Modern conflicts are understood in French doctrines as being a symmetrical or dissymmetrical in nature if the belligerents have identical war aims. If there is a disparity in the nature of the war aims, then the conflict should be understood as asymmetric. In dissymmetrical conflicts the armed forces are similar in nature, but with, "different structures, personnel strength, equipment, technology and doctrine."[25]

This was actually the case in Libya as there were two different structures fighting the civil war, namely the regular army and the rebel side, although both sides had similar war aims. Naturally, the rebel side that emerged from the collective feelings of unequal treatment by the government and undemocratic power structures were not organized as a regular army, nor did they have the potential to fight against mechanized units or modern air forces. The role of the NATO was to protect the people of Libya and prevent unnecessary suffering. Perhaps this mission was understood right from the beginning as protecting the rebel side from being overrun by the Libyan regular army. The operation was not launched merely to conduct the necessary humanitarian assistance. In practice, that would have required close cooperation between NATO and the Libyan government to coordinate civil humanitarian efforts to alleviate human suffering.[26] Indeed, NATO had chosen its side.

The French approach to modern warfare is of crucial importance because the Libyan operation was led by the French military after the US military handed over the leadership role during the early phases of the operation. It is apparent that this lead role influenced the operational approach of the NATO forces. Hence, the preference for finding political solutions instead of direct military effects, and the efforts to turn the unsymmetrical set-up to one which that would respond to more symmetrical efforts. This kind of approach is, if the field manuals are to be trusted, more closely aligned with French military thinking than what would have been a response of the US military in the same situation.

Naturally, some physical destruction in the Libyan operation was needed. NATO targeting in Libya included enemy tanks, armoured personnel carriers, air-defence systems and artillery that were considered as being a threat to civilians and civilian-populated areas in Libya. Naturally, NATO conducted reconnaissance, surveillance and information-gathering operations to identify those forces that were the greatest threat. According to critics of Secretary Gates, the NATO air operation centre in Italy should have been able to provide more than 300 sorties a day, whereas it was 'struggling' to launch only 150. Furthermore, there were shortages in munitions a mere 11 weeks into the operation. Unaccountably, Gates criticized the Libyan operation, but then praised the Afghan operation even though very serious operational problems have been characteristic of that campaign, which has lasted more than a decade, notwithstanding the perceived advances in the Afghanistan that have taken place on the ground in recent months.

## The quest for the operational approach

> The operational approach is the manner in which a commander contends with a centre of gravity. There are two operational approaches: direct and indirect (FM 3-0, 6-41).

The form of operational approach that NATO chose, or to which it drifted due to the complex conditions that emerged during the early phases of the crisis in Libya, is a matter of great importance as it enables one to analyse the success of the design from the very beginning up to the

collapse of the Gaddafi forces' resistance.[27] It is possible to interpret the operation in Libya as carried out by means of the indirect approach, as combat power was directed against a series of decisive points whilst avoiding enemy strength. Similarly, the operation also bore features that appear to be from the direct approach where force was used directly against the enemy's Centre of Gravity (COG). Hence, we face the inevitable difficulties of trying to fit real world situations that have not yet concluded, with theoretical concepts. Furthermore, the series of events will become clearer only after we have gained more distance from them. The COG is usually understood as being a critical vulnerability that can be attacked and destroyed. Unlike an objective, decisive point or even a critical weakness, the enemy COG has the potential to threaten our own GOC as it is neither passive nor receptive to domination. A COG can be physical or imponderable but always represents the weight or focus of efforts (*Schwerpunkt*).[28] These COG's could be described as the true sources of the military capabilities of modern nations or groups, and are not easily revealed. The actual motivation of certain military or other armed powers to raise hostile intentions against another group or nation is a matter of difficult and complex questions.[29]

It is important to note that the indirect approach as described in FM 3-0 is not parallel with the considerations of the 20th century British military theorist Basil H. Liddell Hart, who presented the indirect approach as a conceptual whole. In his most convincing examples, the "great captains" were ready to undertake the most hazardous approaches – over mountains, deserts or swamps if necessary, with only a fraction of their forces. The main idea was not, however, to celebrate an irresponsible gamble that would put the whole organisation at risk, but on demonstrating how such attempts were crucial preludes in defeating the adversary and in dislocating the enemy's psychological and physical balance.[30] The idea was to gain surprise over the adversary that would made them unable to respond – or bring about a mental checkmate. The idea was not to wear down the system, the infrastructure or the critical elements around the adversary (by direct measures), but to drive the whole organisation of the adversary to a feeling of hopelessness, removing the will to continue the struggle. Indirect measures would contain both physical and non-physical activities.

The operational approach does not prescribe the conduct of the tactical level actions to be undertaken during any actual military operation, although it does give a clear reference to the rhythm of the operation and the resources needed in the long term. Hence, we might expect the indirect approach to have a built-in mechanism of prolonged campaigning and the direct approach, on the contrary, to be more intensive and shorter in its outcome. This was, at any rate, the main argument that Basil H. Liddell Hart presented in his famous book *Strategy* (1991). It is based on the idea that any conflict will eventually need battles, even close combat, to ensure that decisive outcomes will finally occur. This last idea is Huba Wass de Czege's. He proposes that close combat may be the only way to ensure decisive effects, furthermore, there should be action in holding a piece of ground, securing a population centre or assuring the access of lines of communication. He concludes that the method of lengthening the campaign could even lead to better terms of peace, [31] a statement familiar to Liddell Hart, although usually attributed to Clausewitz.[32]

The idea of prolonging war is questionable in ethical or humane terms, as prolonged military campaigns will, eventually, raise the number of human causalities and collateral damage. Liddell Hart did, therefore, justify his opinions by using historical examples. He was especially fond of General William T. Sherman's famous "march to the sea" during the American Civil War. Liddell Hart described this 425-mile march from Atlanta to "the outskirts of Savannah" as a process of defeating the enemy literally step by step, keeping the lines of operation unpredictable. The supreme commanders of the Confederate Army were kept unaware of the true aims of the operation and the operational plans were altered according the resistance the "march" faced. Liddell Hart understood that the former battles of attrition were needed before this *coup de grace*, but without it, the bloody Civil War would have been even longer and even more destructive. This approach to the realization of operations has several adherents in the history of the art of war. The manoeuvre by the German Armed Forces against the Allied forces during the summer of 1940 is perhaps the most famous.[33] The major battle operations of the Coalition during the first and the second Gulf Wars can be classified similarly as having some correspondence to the Sherman march, the method of defeating the adversary by manoeuvre and with a series of battles that eventually undermined the enemy's physical and psychological resistance. The sequential method is not, therefore, just a method of prolonging the

campaign but of ensuring the more permanent results. The First World War, especially on the western front, is a good example of the sequential method that did not succeed.

These "operational level" considerations are important to remember when changing the mode to tactical level effectiveness and the methods that would inflict this kind of effects. The US Army forces are using, according to FM 3-0, a four level defeat mechanism (destroy, dislocate, disintegrate, isolate). A sufficient amount of destruction is needed in order to dislocate and disintegrate the enemy, but if "necessary combat power cannot be massed simultaneously, commanders apply it sequentially. This approach is called attrition" (FM 3-0, 6-42–6-43). This means, in other words, that there should always be a clear superiority over the adversary, if any military operations are to be launched. The method of sequential effects is rejected, as it will prolong the campaign, cause "attrition" and prevent speedy solutions to the conflict. In reality, there is a tendency to avoid the sequential method, as it would expose the organisation to reciprocal action, where the results are never predicted but experienced.

The whole debate around effectiveness should be understood at the tactical level, in other words to ensure the effectiveness of tactical level actions. Liddell Hart used similar concepts as the US Military today, namely, demoralization and disorganization ($D^2$), in justifying the effects that would be a result of the strategic level indirect approach.[34] According to Liddell Hart, no strategic advantage would be achieved simultaneously. Enduring results would be achieved in the time that it would take to ensure the actual effectiveness of military means. Obviously, Liddell Hart did prefer the deductive method in his analyses but only because he realized the importance of understanding the adversary as a living force and not as a system.[35]

It is interesting to note that the French Military counter-insurgency doctrine (JD-3.4.4) understands the term "approach" more practically, namely consisting of three complementary and interconnected approaches to counter-insurgency (COIN) operations. They are not drawn up to be guidelines for operational planning but they should be considered as aspects that should be taken into consideration; the aim of COIN is to secure the phases of stabilization and to ensure the comprehensive approach as whole. The three approaches are: towards insurgents,

depending on the terrain, with respect to the population and local elites.[36] These guidelines were suitable in Libya, even if this was not a COIN-operation, as NATO was forced to progress prudently to ensure that the geographically disintegrated rebellious forces would be sufficiently supported. Simultaneously, the role of the local "rebellious elites" turned out to be that of official provisional governments. This process took, as we now know, almost a year to complete.

In US Military manual FM 3–0, the role of the operational approach has a practical value only in formulating the design, but not in helping reframe the problem. The problematic hierarchy and the method of deduction are expressed clearly in Figure 1. This iterative but perhaps inflexible system would not have tolerated adjustments at the political level, a change of COG's or the re-evaluation of conditions during an actual operation, and would not have, therefore, lead to an outcome that would have suited the current Libyan environment.[37] There are, as has already been expressed, clear evidences that the operational approach is more important, as compared to what has been stated in FM 3-0. This argument is justified because of the multifaceted features of the human dimension during warfare, which are too complex to be defined merely as unchanged during the operation.[38] The aim of the NATO operation in Libya was to protect civilians and demand an immediate ceasefire. Another probable aim, the one that is seldom written about as an intentional aim, was to prevent the escalation of the conflict such that it would drag the outsider (NATO) into propping up a whole society that would otherwise be smashed to pieces both mentally and structurally. From the military point of view, as well as the political, the operation was successful as NATO did not make its presence irreplaceable, although their immediate presence will probably be needed, at least in the near future. Therefore, it can be deduced that the operational approach that was adopted did take into consideration those cultural aspects that ensured a stable outcome. This is due to the fact that NATO did not take any (visible) part in actual close combats in the scenario, although they were put into effect by the Libyans.

Identifying the Centre of Gravity (COG) is understood as an important stage when framing the problem (FM 3-0, 6-35[39]). COG's are defined in such a way that they can be affected by kinetic or non-kinetic measures, directly or indirectly. The problem lies in the process of defining the COG's, as they are easily dispersed within the structures of the enemy, i.e.

the enemy that is a system.[40] They are located primarily by analyses closer to deduction and only secondarily by induction.[41] The enemy system might include critical vulnerabilities and even those that would be called "the hub of all power and movement", especially if they are found within the social and cultural dimensions of the military organisation.[42] Operational Design contains several elements that are all necessary in conceptualizing the military tasks. However, the elements of "refining the design" are not analysed as such, because they are understood as being incorporated into the phases of framing and formulating the design.
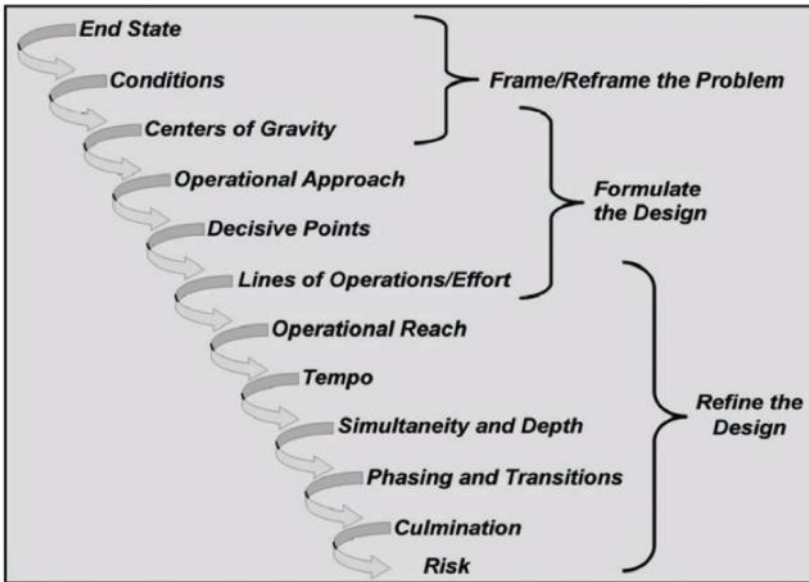


**Figure 1.** Linking the elements of operational design (FM 3-0)

## "Operational art is not a level of war"

It is stated in the Doctrine for Joint Operations (JP 3-0) that operational art "helps commanders use resources efficiently and effectively to achieve strategic objectives". Furthermore, "without operational art, war would be a set of disconnected engagements, with relative attrition the only measure of success or failure".[43] Operational art is understood, in JP 3-0, as the necessary means to fulfil the requirements needed at the operational level

of war. The idea that there would be "disconnected engagements" is not tempting but this is just what is needed (or what needs to be tolerated) in the fields of operational art, as will be demonstrated. In this chapter, the operational approach is treated more closely, as it will be connected to the discussion about the role of operational art.

The operational approach should be understood neither as "a level of war" nor merely as an in-between. Brigadier General Huba Wass de Czege makes exactly this assertion in his article "Thinking and acting like an Early Explorer: Operational Art is not a Level of War" (Small Wars Journal, March 2011), where he admits that he made an error whilst he was a leading participant introducing the concept of the operational level into not only the US military but also to Western military thinking via NATO. It was a misinterpretation derived from the Soviet art of war, he says. Wass de Czege is now much of the opinion that there should not be any levels of war between tactics and strategy, as it is not possible to form a continuum from the strategic to the tactical level, nor should there be any need to make such an intermediary level. Operational art should, therefore, retain its unique status as being the art of "an explorer before the days of Google Earth, the Weather Channel and Global Positioning System".[44] Wass de Czege understands operational art as being the starting place for finding something that the modern process of Operational Design[45] has lost. Furthermore, the challenge in considering issues within the context of operational art lies in the fundamental difference between tactical and strategic thinking. This is not properly understood, according to Wass de Czege, in current US Military doctrines such as shown in FM 3-0 (2008).[46]

In addition, operational art is needed if the focus is on defeating the enemy as a culture during reciprocal action instead of destroying the enemy as a system - the theme presented several times in this article. In fact, there are similarities between this idea and those presented in French Army COIN-doctrine. The intermediate level between strategy and tactics is needed in order to direct military capabilities according to conduct in the theatre of war where it is changeable, uncertain and exposed to the incalculable nature of the human will. It is also needed in order to overcome the qualitative changes over time that will unavoidably cause unexpected surprises. This is due, according to Alan Beyerchen, to the conduct of war being nonlinear in its nature. Furthermore, our potential

for controlling this nonlinearity is limited, even with the advent of numerical techniques offering certain tools to mitigate against it.[47]

The role of operational art in the area between strategy and tactics leaves some confusion about the nature of the interaction between the concepts. According to Wass de Czege, strategy should be understood as a realm of uncertainties, suitable for argumentation with "sceptics". Strategy operates in a system that can be assumed to be "open within the time frame we are exploring". There is a clear similarity with the Israeli Systemic Operational Design (SOD) concept, where the system was similarly defined as "open". Tactics is, on the contrary, something that can be measured and even predicted. Tactics is a concrete action undertaken to make progress and can, therefore, be assumed as closed system, "within the time frame of planned tactical actions". Tactics is, therefore, the realm of control and standards deployed in order to handle actual close combat and battle. As Wass de Czege asserted in 2011, in tactics, "conviction" is required as, "without conviction nothing difficult gets done."[48] On the other hand, the mechanical features that are evident at the tactical level should not be generalized to the higher level of warfare, especially into the realm of operational art.

Perhaps a preference for the tactical is a reason for thinking that the battlefield can eventually be controlled, and for opinions that suggest there are possibilities in preventing friction.[49] There is a risk of oversimplifying the complexity of warfare if understood solely through the means of tactical preference. Naturally, tactical level considerations should be highly valued if they address circumstances where victory is difficult to determine, i.e. where fighting is likely to take place in a standoff setting. Furthermore, a close and immediate ground presence is needed if the aims are to guarantee the safety of the population or other protected objects. Defeating the adversary at the "operational level" means simultaneous control on the ground and of the population.[50] In addition, it is important to remember aspects of cultural difference. In Libya, the conflict was within the culture, even though there are obvious cultural differences within the Libyan region, especially between the western and eastern coastal areas. During the aerial operation, the tactical level effects were not automatically transferred into effects of strategic importance, nor could the strategic importance be transferred to the tactical level targeting without understanding how these kinetic effects

actually created effects inside the culture of the society of the adversary. If the Centres of Gravity of the military operation are not properly understood there is always the risk that the resources that are invested in support of one party will lead to a situation where these investments are thrown away when the supported party redirects hostile means at the supporter. Very likely, this will be the future scenario in the Afghanistan operation, where some serious disagreements between the strategic level leaders have been apparent.[51]



**Figure 2**: The nature of Operational Art

Operational art is the art of controlling the use of military capabilities, both kinetic and non-kinetic, in order to ensure that the input–output relation is in balance. It has been suggested in this article that it is not possible to create a design that would simultaneously take into consideration the problems of both the tactical and strategic levels. The intermediate level is, therefore, a level of adjustment. The method used is a combination of deduction and induction; in other words, of abduction. The focus on operational art is especially important if the nature of the operation resembles the Libyan civil war, where NATO was acting as a supporter of one party and not as the primary belligerent responsible for

the unavoidable result of the campaign, namely victory or defeat. The operation required continuous situational awareness and constant follow-up concerning the effectiveness of the strikes as their long-term effects could not be easily predicted. The role of the follower (supporter) did not enable a more active role during the campaign, emphasizing the role of operational art and the role of commanders responsible for planning the strikes.

Perhaps the time needed to resolve the Libyan civil war was just enough to resolve those conflicts that needed to be resolved. It must be borne in mind that there were, at all times, more than one party willing to tempt fate in order to reach the desired end state. In other words, both parties had their chance to overcome their adversary, as demonstrated during the military operation. Naturally, further violence may break out after the civil war, but the probability is much lower than if NATO forces had announced that they themselves had destroyed the military capability of the Libyan government. This would have left NATO as a winning party, downsizing the role of the "rebellious party". In the eyes of the world, the winning party was heroic and this will have a critical influence on the stability of Libyan post-civil war policy.

The direct link between strategy and tactics should be understood as an inevitable consequence of military hierarchy. This link is not, however, appropriate for defining or practicing operational art, as it is now stated in FM 3-0. It is clear that there is a temptation, as mentioned earlier, to bring about strategic level results with only minor tactical efforts. However, this should not be acceptable as the main thrust of operational design even though regular militaries worldwide tend to support this sort of approach. This is essentially a subject for the operational approach, and is observed in more detail in the next section. An even more influential concept that has a direct influence on the realization of operational art is the timing or the orchestration of military capabilities during operations. In FM 3-0, there is a clear preference for using these capabilities simultaneously:

> Simultaneity means doing multiple things at the same time. It requires the ability to conduct operations in depth and to orchestrate them so that their timing multiplies their effectiveness. (FM 3-0, 3-16)

It has even been stated that simultaneity is a key characteristic of the American way of war. In addition, simultaneity and depth are understood as being concepts that underpin joint operation theory. The goal is to "overwhelm and cripple adversary capabilities and adversary will to resist". It is, therefore, a method of directing power against key capabilities and sources of strength of the adversary.[52] This method is, as described earlier, tactical in its nature, and should not be extended into strategic level considerations, but is an important output of the tactical level, to be merged back into the overall picture of the reciprocal action of the battle. For some reason, however, FM 3-0 defines battalion and smaller units as suitable for executing elements sequentially, although this is not the case for irregular warfare nor in peace operations (FM 3-0, 3-122). In this article, the focus has been on considering the relevance of sequential effects in specific operational conditions. It is also the main argument in French Military doctrine for COIN operations, where they encourage the military to implement sequential–type operations against insurgents, as simultaneous military measures will not bear fruit in operations with an asymmetrical balance of power.[53] The difference in military thinking is visible in these different military cultures.

## The integration of operational art and design

The technological dominance of the modern western military, especially the US Military, might direct potential adversaries to avoid confrontations in the future, as the war aims may not be the same. This is an important aspect if any symmetrical or dissymmetrical warfare is attempted. This avoidance will lead, inevitably, to asymmetrical set-ups, where belligerents aim for different kinds of outcomes. The nature of human behaviour during real war circumstances, especially during the Clausewitzian 3rd extremity of war, will remain, as land warfare continues to be dominated by "chaos, change and friction". This makes any design and plan of operations receptive to change. This state of affairs is likely to be met even more frequently as the adversary is likely to avoid becoming a targeted by superior military technology.

In Libya, the conditions were quite different, as the set up was dissymmetrical, with the parallel war aims of both belligerents. It was not asymmetrical and therefore it did not, apparently, suit the formulae of "modern warfare". The true aim of the NATO operation, which was

being crystallized during the long process of the war, was to ensure that there would be a viable potency of power in the area. The rebellious side turned out to be, slowly but progressively, a potential element needed in the balance in Libya and therefore, suitable for filling the military and political vacuum. Ultimately, what emerged most in reports of the Libyan operation during the summer and early autumn of 2011 was the lack of military resources and the prolonged schedule of (major) operations. Hence, at least in public, these accusations have been used as proof of the incompetence of European NATO countries in maintaining military capacities in modern warfare. Behind the public debate however, these accusations concealed a more profound disagreement, between the current doctrines of the US Military versus the realization of the Libyan operation, where the campaign should have been designed in a way that provided quick solutions. Meanwhile, the prolonged schedule of the NATO operation revived fears that NATO would face the states of annihilation and attrition, the twin predominant strategies of the 20th century - concepts that have been avoided assiduously since the 1970s preference for manoeuvre thinking. The emergence of systemic-based military considerations has made the departure from attritional thinking even more obvious. Nevertheless, the Revolution in Military Affairs (RMA) has turned out to be more of an evolution, at least in the circumstances concerning irregular warfare and asymmetric threats.

Systemic concepts have asserted that modern military operations are too complicated for linear approaches because the adversary forms a complex adaptive system. This is true in some cases, in certain conflicts, but when trying to ensure success in any kind of warfare, applying both linear and nonlinear actions are likely to be necessary.[54] In this article, several dichotomies are found and presented. However, the intention has not been to declare a single approach as having the right answer, but to emphasize that the policy of underrating the alternatives risks serious consequences to the whole organisation. In addition, the tendency to mix the levels of war in operational designs raises some serious criticisms. The link between tactical level engagements and strategic level importance is too broad to be oversimplified. The Libyan civil war, with its dissymmetric set up, would not have been solved with the use of rapid parallel air strikes to overcome the armed forces loyal to Gaddafi. Conflicts are reciprocal and human based in their nature, inasmuch as war is only a continuation of politics (or rhetoric), with more violent means.

The concept of EBAO or EBO is based on the assumption that it is possible to combine both direct and indirect approaches in the same design. This is problematic as a starting point because these approaches are based on different scientific explanations and research traditions. The indirect and more or less cultural level based considerations should not be treated as if they were a normal part of military activity, because this may cause misunderstanding and misuse of the data collected from human interaction, from the conditions where the true reciprocal action is experienced. Hence, in the field of military studies, there should be a more tolerant attitude towards culturally constructed inputs; the cultural way of understanding human interaction and its violent features. We should be ready to use for example the texts of (British) Thomas E. Lawrence (1888–1935) more openly and make more effort to associate the cultural level approaches with the more traditional sources for detecting military effectiveness, including the cultural COGs among the organisational structures of the adversary.[55] A minimal inquiry into the system of the adversary would address, according to Wass de Czege, "how can we learn about it".[56]

The combination of Clausewitz's concepts of the third extreme and friction is also pertinent if a deeper understanding is to be found from the potential of the inductive method to reveal something unseen from the 'real world' of battles. Perhaps this is a field of endeavour for the military sociologist and military oriented cultural anthropologist, focussing on the conduct of organisations during missions and how they could protect their capabilities and efficiency. One might conclude that the Operational Design (OD) falls short of the planned efforts where it tries to understand and predict chaos and change. The emphasis on seeing the whole picture instead of understanding specific incidents has, unavoidably, a crucial bearing on how the operational design will influence the tactical level and how information is gathered, digested and finally mastered. As mentioned earlier, there is a continuous debate on the role of the Operational Design among the US Military.

Operational design should be understood, according to FM 3-0, as being the actual bridge between strategic planning and the tactical implementation. Hence, operational art requires, according to FM 3-0, three continuous and cyclical activities. These activities define military and non-military actions in conflicts. Namely, framing and reframing the

problem, formulating the design and refining the design. Based on the arguments presented in this article, the operational approach should be situated in the middle of the process and perhaps without any strict stages in the design process. The following illustration fits the realization of the operation that NATO conducted during the Libyan operation (2011). There appeared to be a constant argument between framing the problem and formulating the design. The intermediate concept - the operational approach - was important when deciding the decisive points and the lines of operations that would lead to conditions that would ensure the operation's effectiveness on the revealed centres of gravity. Similarly, the need for intermediate objectives was accentuated. Hence, also the role of operational level commanders was highlighted.

In figure 3, it is suggested that the framing of the problem could be understood as being open (as a system) and the formulation of the design as closed (as a system). This idea is parallel to Wass de Czege's ideas about the role of strategy and tactics.[57] The intermediate stage is more problematic as it lies somewhere between an open and closed system, but rarely has been only one of these. It is the level that assesses the proportionality of reciprocal action to the broader plans and designs of the war. This level of consideration is the area where the decisions to cause simultaneous and sequential effects are made. This idea is parallel to Milan Vego's argumentation. He emphasized that there is always a danger that the military effectiveness will be shorthanded if the tendency of "trying to do too much too quickly" remains. Therefore, the objective of war cannot be accomplished by a single act, nor should the planning process be separated from the process of design.[58] Therefore, as figure 3 suggests, the operational design should be more compact so as to offer a sufficient framework for planning.
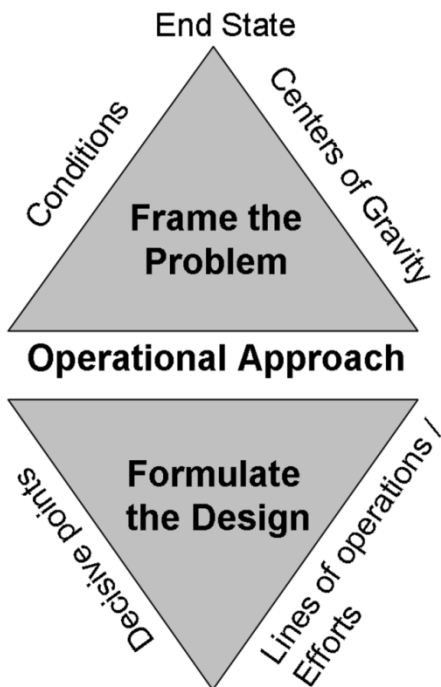
**Figure 3:** The rearrangement of the elements of Operational Design

In US military manuals the method of using sequential effects, especially during major battle operations and in stability operations, is considered incorrect. This kind of generalization has been made according to the assumption that the only effective measure is simultaneous effects as well as parallel warfare. This simultaneity is understood as being the key characteristic of the American way of war.[59] This preference will cause problems, especially in operational level considerations and in designs that are within the reach of operational art. The enemy is not, however, just a system, although one might find the collapse of the enemy's system as a quick, economic and tempting alternative. However, there is always the probability that the enemy's will to fight will not collapse even though the structures around them are tottering. The use of sequential effects is a challenge to any military force, especially if the operational approach is understood only as a means of finding the proper COG to be targeted.

The role that the sequential method has is in extending the potential for making the rhythm of effectiveness as versatile as possible. Sufficient rhythm is not easy to find as every reciprocal action, or war, is different and cannot be readily generalized.

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[1] EBO and EBAO have been under serious debate during the last years. USJFCOM James Mattis argued that the use of the concept should be restricted to operations that have simple aims. This launched a series of counterarguments. See: Gene E. Myers, "Don't kill EBO. JFCCom Commander is Wrong to Scrap Effects-Based Operations", *Armed Forces Journal*. Commentary, November (2008). pieejams
http://www.armedforcesjournal.com/2008/11/3740140 [skatīts 04/06/2012];
James N. Mattis, "USJFCOM Commander's guidance for Effects-based Operations", *Joint Forces Quarterly*, issue 51, 4th quarter (2008), pp. 105–108. pieejams http://www.ndu.edu/press/lib/pdf/jfq-51/JFQ-51.pdf [skatīts 04/06/2012].

[2] David A. Deptula: *Effects-Based Operations: Change in the Nature of Warfare,* (The Aerospace Education Foundation, 2001). pieejams http://www.airforce-magazine.com [skatīts 04/06/2012].

[3] Milan Vego has even claimed that the whole concept is based on theoretical background reflecting radical leftist and anti-capitalist ideology. In addition, Vego argues that they are pseudoscientific by their nature.  See Milan Vego, "A Case Against Systemic Operational Design", *Joint Forces Quarterly*, issue 53, 2th quarter (2009). pp. 69–75; Milan Vego, "On Military Theory", *Joint Forces Quarterly*, issue 62, 3rd quarter (2011). pp. 59–67.

[4] Allan R. Millett, et. al. "The Effectiveness of Military Organisations". *International Security*, Vol. 11, No. 1,
(Summer 1986). pieejams http://www.jstor.org/stable/2538875 [skatīts 04/06/2012].

[5] Carl von Clausewitz; *On War*, ed. and trans. Michael Howard and Peter Paret (New Jersey: Princeton University Press, 1989). p. 733; Kaisu Mälkki and Juha Mälkki, "The Dynamics of Clausewitzian Friction", Kungl. Krigsvetenskapakademiens handlingar och tidskrift, NR 2, April/June (2011). pp. 41–60.

[6] Mao Tse-Tung (1968), quoted in Stefan J. Banach, "The Art of Design: A Design Methodology". *Military Review*, (March–April 2009), p. 105.

[7] John A. Warden, The Enemy as a System. *Airpower Journal*, (Spring 1995). pieejams http://
http://www.airpower.maxwell.af.mil/airchronicles/apj/apj95/spr95_files/warden.htm [skatīts 04/06/2012].

[8] Huba Wass de Czege, "Thinking and acting like an Early Explorer: Operational Art is not a Level of War", *Small Wars Journal*, (14 March 2011). pieejams http://smallwarsjournal.com/jrnl/art/operational-art-is-not-a-level-of-war [skatīts 04/06/2012].

[9] Vego, "On Military Theory."

[10] Wass de Czege, "Thinking and acting like an Early Explorer," 4.

[11] Clausewitz, *On War*, 119, 136.

[12] Probably first stated by Count Helmuth von Moltke, (Heuser, 2002, 89).

[13] Mälkki and Mälkki, The Dynamics of Clausewitzian Friction.

[14] Clausewitz, *On War*, 75–77.

[15] Vego, "On Military Theory."

[16] Swedish Armed Forces, *Militärstrategisk doktrin*, (Stockholm: Försvarsmakten, 2002), 81

[17] Vego, A Case Against Systemic Operational Design.

[18] Vego, On Military Theory – Vego, A Case Against Systemic Operational Design. Vego understands the closed systems as "based on science and the second law of thermodynamics […] They are not applicable to living organisms – hence, the need for a general system theory that can be applied to biology, information theory, cybernetics, and social sciences."

[19] Clausewitz, *On War*, 77, 96.

[20] For example see Sunzi, Maurice de Saxe, Machiavelli, Carl von Clausewitz, Antoine H. de Jomini, T. E. Lawrence, J. F. C. Fuller and B. H. Liddell Hart.

[21] Vego, On Military Theory.

[22] Gates, Robert M, "The Security and Defence Agenda (Future of NATO)". Speech delivered by US Secretary of Defence Robert M. Gates, Brussels, Belgium. Friday, June 10, 2011. pieejams http://www.defenec.gov [skatīts 04/06/2012].

[23] French Army, FT-01. *Winning the Battle Building Peace. Land Forces in Present and Future Conflicts.* (Paris, Centre de Doctrine d´Emploi des Forces, January 2007), 7.

[24] NATO, Anders Rasmussen, Secretary General of NATO. pieejams
http://www.nato.int/cps/en/natolive/71679.htm [skatīts 31/10/2011].

[25] French Army, FT-02. *General Tactics.* (Paris, Centre de Doctrine d´Emploi des Forces, June 2010), 13.

[26] The definition of 'humanitarian assistance' is cited from NATO Glossary of Terms and Definitions: NATO*, AAP-6(2010), NATO Glossary of Terms and Definitions (English and French)* (17 April 2012). pieejams
http://nsa.nato.int/nsa/zPublic/ap/aap6/AAP-6.pdf [skatīts 04/06/2012], 2-H-5.

[27] Huba Wass de Czege, "Systemic Operational Design. Learning and Adapting in Complex Missions", *Military Review*, (January-February 2009). pp. 2–12. This idea is not built-in to the process of operational design that is based on the effects-based planning that assumes an almost "mechanistic understanding of causal chains". The aim of the design is to "develop a more comprehensive appreciation of the situation that we as a military institution now can".

[28] Milan Vego, "Center of Gravity," *Military Review*, (March–April 2000), pp. 23–29.

[29] Juha Mälkki, *Herrat, jätkät ja sotataito: Kansalaissotilas- ja ammattisotilasarmeijan rakentuminen 1920- ja 1930-luvulla "talvisodan ihmeeksi"*. Gentlemen, Lads and the Art of War: The Construction of Citizen Soldier and Professional Soldier Armies during the 1920s and 1930s into "the Miracle of the Winter War". (Helsinki: Finnish Literature Society, 2008).

[30] Basil H. Liddell Hart, *The Decisive Wars in History: A Study in Strategy* (London, 1929) p. 5.

[31] Huba Wass de Czege, "Closing With the Enemy. The Core Competence of an Army", *Military Review.* (May – June 2000), 8. Similar considerations were expressed by Liddell Hart, as early as the 1920's in *The Remaking of Modern Armies* (1927) and *When Britain Goes to War* (1935).

[32] The differences between Clausewitz's and Liddell Hart's argumentation ought to be seen in their different perspectives. Clausewitz visualised warfare as being based on battles and the outcome of the battles would be the result of the war. Liddell Hart, on the contrary, tried to avoid battles as long as possible, as he was more committed to the strategic and grand strategic considerations.

[33] Basil H. Liddell Hart, "*Strategy"*, (Harmondsworth, Middlesex: A Meridian book, 1991), 133–135.

[34] Liddell Hart, *Strategy*, 219.

[35] These kinds of accusations can be made because Liddell Hart tried to assure his readership of the invincibility of combining the early 20th century mechanization of Armies with the ability of the Air Forces to "jump" over the adversary. The enemy would be paralyzed quickly, he assumed, because this would have been effective during the First World War. Liddell Hart understood, after the Second World War, that these ideas did not suit the environments of modern war (the early cold war period). Liddell Hart (1991).

[36] French Army, JD-3.4.4. *French Joint Doctrine (JD) on Counter-Insurgency (COIN)*. N° 253/DEF/CICDE/NP, (Paris, Centre de Doctrine d´Emploi des Forces, 5th November, 2010), 16, 41.

[37] This suggestion is made because of the argumentation in FM 3-0. There are several attempts that try to broaden the process of OD and to make it more flexible. See: Stefan J. Banach, "The Art of Design: A Design Methodology". *Military Review*, (March–April 2009), pp. 105–115; Huba Wass de Czege, Systemic Operational Design.

[38] Dimensions of strategy are listed in David J. Longsdale, "Strategy". Eds. Jordan et al, *Understanding Modern Warfare,* (Cambridge University Press 2008),p. 30, as: people, society, culture, politics, ethics, economics and logistics, organisation, military administration, information and intelligence, strategic theory and doctrine, technology, military operations, command, geography, friction, adversary, time. (U. S. Army, FM 3-0, 1-22). Operational variables describe not only the military aspects of an operational environment but also the population's influence on it. Joint planners analyze the operational environment in terms of six interrelated operational variables: political, military, economic, social, information, and infrastructure. To these variables US Army doctrine adds two more: physical environment and time. As a set, these operational variables are often abbreviated as PMESII-PT.

[39] A centre of gravity is the source of power that provides moral or physical strength, freedom of action, or will to act (JP 3-0). This definition states in modern terms the classic description offered by Clausewitz: "the hub of all power and movement, on which everything depends".

[40] John A. Warden, "The Enemy as a System."

[41] John A. Warden, "The Enemy as a System." The method of understanding warfare is however quite the opposite in the ancient Japanese art of war, as in Miyamoto Musashi, *The book of five rings*, (New York: Bantam Books, 1992).

[42] Mälkki, Herrat, jätkät ja sotataito.

[43] Armed Forces of the United States, JP 3-0, *Joint Operations*, Doctrine for Joint Operations, 11 August 2001, III–11, xii–xiii.

[44] Huba Wass de Czege, Thinking and acting like an Early Explorer.

[45] U. S. Army, *FM-3.0*, Operations, (Headquarters, US Department of the Army, 2008)., 6-25. Operational design is the conception and construction of the framework that underpins a campaign

or major operation plan and its subsequent execution (JP 3-0).

[46] Huba Wass de Czege, "Thinking and acting like an Early Explorer."

[47] Beyerchen (1992-1993), 63.

[48] Huba Wass de Czege, "Thinking and acting like an Early Explorer."

[49] See: Mälkki and Juha Mälkki, "The Dynamics of Clausewitzian Friction."

[50] Huba Wass de Czege, "Closing With the Enemy. The Core Competence of an Army", *Military Review.* (May – June 2000), 9.

[51] See: Constable, "U.S. ambassador to Afghanistan counters Karzai's criticism". *The Washington Post*, 20 June 2011. pieejams http://www.washingtonpost.com/world/asia-pacific/us-ambassador-to-afghanistan-counters-karzais-criticism/2011/06/19/AGE7a0bH_story.html [skatīts 04/06/2012]. U.S. Military presence in Afghanistan has been compared to occupiers.  This idea has been announced even by President Hamid Karzai.

[52] Armed Forces of the United States, JP 3-0, III–11.

[53] French Army*, Doctrine for Counterinsurgency at the Tactical Level.* (Paris, Centre de Doctrine d´Emploi des Forces, April 2010).

[54] Milan Vego, A Case Against Systemic Operational Design, 73.

[55] See: Thomas E. Lawrence, *Seven pillars of Wisdom*, (London: Penguin Books, 2000); Basil H. Liddell Hart, *"T. E. Lawrence" In Arabia and After* (Oxford Alden Press, 1935).

[56] Huba Wass de Czege, "A Case Against Systemic Operational Design," 10

[57] Huba Wass de Czege, "Thinking and acting like an Early Explorer."

[58] Milan Vego, "A Case Against Systemic Operational Design."

[59] Armed Forces of the United States, Joint Pub JP 3-0, III–11.

# Blackout: Civil-military miscommunication as a recipe for a war failure – A case study of Israel and Georgia

*By Jahangir Arasli[1]*
*Defence Ministry of Azerbaijan*

While the large part of contemporary studies in civil-military relations (CMR) is still devoted to the issues of civilian control over the armed forces, prevention of military intervention into politics; security sector reform and other patterns of management of the defence establishment by its civilian principality. One major aspect often falls out of the research scope. This is an interaction between civilian and military components in wartime. War or any other external use of force by a state is essentially the culmination of civil-military relations, which test its advantages and flaws. The outcomes are highly dependent on the performance effectiveness of both parts of the civil-military equation. Consequently, well-established and properly functioning channels of communication between the political leadership and the military command are a paramount condition for success in attaining politico-military goals and objectives. The other state of affairs would instead most likely be a recipe for a failure. Recent history demonstrates two remarkable examples of such failure, which are chosen as case study for this article: the Israeli war in Lebanon in 2006 and the war between Russia and Georgia over South Ossetia in 2008. Despite the different geopolitical settings, the cases were selected for their common denominator – an obvious malfunction of 'strategic civil-military relations' due to existed miscommunication between civilian leaders and the top defence establishment, and pathologic decision-making process (DMP) in the field of national security that forms an important axis of the CMR.

The main argument of this article is that the DMP is as equally important part of the civil-military architecture as civilian control and other features, which still preoccupy the CMR discourse. Distorted DMP leads to disconnectedness between the civilian and the military domains and causes blackout in 'strategic civil-military relations'. In case of war, such a situation may precipitate a major breakdown, even for the democracies with an otherwise healthy CMR, civilian control included. In support of the argument, the article focuses on the combination of factors that led to

malfunction of the national decision-making machinery, and in particular channels and mechanisms of interaction between the leadership and the military command, which led to notable setbacks for Israel and Georgia. Also, the article reviews a set of lessons learnt from the both cases for other states with pressuring national security issues.

## Case study one: Israel 2006
## Overview of civil-military relations

Since its creation in 1948, Israel was placed in the severe security environment potentially threatening its very existence. Such a situation predetermined a privileged role of the Israeli Defence Forces (IDF) in the national security sector. The IDF that historically played a crucial role in the nation-building represents a phenomenon of the 'civilianised military in the militarised society.'[2] The increased militarisation of the country, aimed at perpetual extract of national human and material resources for defence needs, was mitigated by the institutionalisation of control over the military. The subordination to the civilian authorities was never questioned and there are no historical records of direct interference of the military into political processes.[3] The generally positive state in the field of CMR, sometimes described as a 'political-military partnership'[4] and 'symbiotic joint responsibility',[5] was enabled by a de-facto status of Israel as a 'nation-at-arms'. Overall mandatory conscription, notwithstanding ethnic, cultural, social differences or gender, facilitates a functioning exchange link between the society and the army. The permanent influx of 'citizen soldiers' into the IDF strips it of autonomy enjoyed by the most of the modern professional all-volunteer military forces. Finally, the paramount role of the IDF as a national survival guarantor assures favourable societal consensus on the military, trusted more than any other institution in Israel.

However, such a system also has substantial trade-offs. As was mentioned above, the IDF had never tried to intervene into politics. Yet, it exerts a major indirect influence that goes far beyond the mere domain of security. An explanation of such phenomenon is twofold. First, the politicians in Israel, including the upper government echelon, are often retired soldiers.[6] The blurred line between professional and part-time officers complicates the issue furthermore: it is not unusual to serve in the active duty, then to be transferred to the reserve and come back again after. As for early 2006,

only three of the sixteen served Chiefs of the IDF General Staff (CGS) did not enter politics. By the same token, out of the four Prime Ministers, three (I. Rabin – who served two terms, E. Barak, and A. Sharon) were former generals.[7] Second, the entire political system of Israel is centred upon fragile partisan balances, the divided parliament, and coalition cabinets without predominance of a single party. Such factors lead to an excessive politicisation of the national security decision-making process. More importantly, in addition to the mentioned peculiarities of the political system, the Israeli DMP itself by mid-2000s was affected by set of pathologies.

## Flaws in DMP

These pathologies are laid into a foundation of DMP by the harsh security environment and stemming from a high role that the IDF has in countering external threats.[8] The negative patterns could be summarized along the six lines as follows:

### 1. Short-terms perspective
The Israeli national security system is based mostly on a reactive approach. It deals with the most immediate threats and concerns, which currently preoccupy the country. That objectively leads to a high role of knee-jerk improvisation and the near-real-time calculations rather than long-term vision.

### 2. Politicisation
Decision-making in the national security field is consensus-based and resembling in some way the NATO pattern of a 'war by a committee'. Being a continuation of domestic politics, it is affected by the ideology spins (as was clearly demonstrated during the Israeli disengagement from Gaza), prevalence of short-term political considerations over long-term security objectives, and the role of the public relations factor that are notably exacerbated during the electoral cycles. A frequent outcome of such developments is 'grand strategy' falling an unintended victim of political tactics and partisan policy.[9]

### 3. Weak capability versus complex machinery
The Cabinet is relatively weak in the field of decision-making related to national security challenges, particularly contingency crises. The Office of

the Prime Minister and the National Security Council (NSC) are equally limited in their organisational capabilities, while the productivity of Parliamentary Committee on Foreign Affairs and Defence is restrained by the need of partisan consensus.[10] An informal cross-ministerial and cross-party framework, known as the Ministerial Committee on Defence created to bring all governmental officials related to the national security segment into a singular decision-making space, often fails to hammer out a speedy and proper decision at the time of a real crisis. The structural perplex, excessive bureaucratisation, insufficient coordination and political competition affect strategy and policy formulation. One of the indicators is an absence of a 'White Paper on Defence' or any equal strategic documents in Israel.[11]

## 4. Soft institutionalisation versus personalisation

Due to the above mentioned factor, the DMP in Israel is not properly institutionalised and de-facto monopolised by *ad hoc* elitist groups – the informal networks, often influenced by charismatic leaders, like E. Barak or A. Sharon with personal experience and credentials in the field of national defence.[12] The culture of consultation is replaced by existence of 'small, tightly knit establishments.'[13] Despite a reasonable explanation – the threatening security environment requiring rapid reaction enabled by personal communication, experience and dynamism – such a mechanism is hardly checked by the legislative and the judiciary branches.

## 5. Defence establishment's dominance

Prior to the 2006 war, the IDF de-facto dominated all stages of the decision-making cycle. The IDF General Staff, unlike, for instance the United States Committee of Joint Staff, is a highly compact body with only formal subordination to the civilian Ministry of Defence.[14] The influence of the General Staff's Planning Department goes far beyond the roles of the similar entities in other Western militaries: by providing the product directly to the Office of the Prime Minister it outmatches the Minister of Defence, the NSC and Ministry of Foreign Affairs.[15] In fact, the General Staff maintains the expertise monopoly, which results in information asymmetry (explained in the next paragraph). That monopoly significantly multiplies its lobbyist capability and pressure on the entire DMP. Consequently, the General Staff has influence in such areas as diplomacy (as was illustrated by its role in the Camp David accord of

2000), civilian affairs (control over the Palestinian territories) or even the economy (e.g., the defence industry).[16]

## 6. Information asymmetry and an excessive role of MILINT

Knowledge asymmetry is not a unique factor in the world of defence affairs. Civilian principals have to rely on the expertise sourced by professional military establishments. Normally, the knowledge gap is mitigated by institutionalised control mechanisms and techniques (such as parliamentary committees and separate information services). Yet, in the specific Israeli environment, information asymmetry creates an 'epistemic authority' in the IDF.[17] It often leads to an imbalance between the input of the political echelon (strategy directives) and output of the military echelon (assessment – planning – implementation). Blurred and unclear political guidance provides room for its subjective interpretations by the defence establishment. This is particularly illustrated by the role of the IDF in the Palestinian territories, where years of counterinsurgency operations shaped its role as the government's 'trusted agent'.[18] A major force multiplier of the General Staff's information dominance is the Department of Military Intelligence (DMI, also known as *AMAN* under its Hebrew acronym). Unlike in most other democratic countries, the DMI enjoys the priority over the civilian intelligence agencies (*MOSSAD* and *SHABAK*, which are the foreign and domestic services, respectively) as the leading national intelligence estimator.[19] Traditional rivalry in the intelligence community designed to mitigate information asymmetries, did not work properly in the Israeli case, since *MOSSAD* and the foreign ministry were partially side-lined by the powerful *AMAN* lobby, which, for instance, participated in all meetings of the cabinet, notwithstanding the agenda.[20] Again, the roots of the problem are embedded in Israeli history and strategic culture shaped by the threat of major surprise attack. *AMAN*'s prevalence creates 'military bias', i.e. an assessment of events and trends from a purely professional angle of view, which often misses the broader picture and may lead to the wrong conclusions and decisions,[21] similarly to those that dragged Israel into the Second Lebanon War. Furthermore, a knowledge monopoly enables the General Staff in shaping threat perceptions of the political echelon and public in the desired direction.[22]

In sum, prior to the Second Lebanon War the IDF upper establishment objectively enjoyed high autonomy, expertise monopoly, information

dominance and leverages of influence on the DMP in the area of national security. This factor, in combination with some others, played a negative role in taking the decision to go to war.

## War: one step forward, two back

Since 2000, Israel was combating the protracted uprising in the Palestinian territories. To overcome the impasse, in 2005 the Israeli cabinet led by Ariel Sharon decided to 'disengage' from Gaza by pulling out Israeli troops, removing Jewish settlements and transferring control and responsibility over the territory to the Palestinian authority. The decision met a fierce resistance from the Israeli religious right, and the government had to use the army to enforce the eviction of the settlers. The use of the IDF for political ends sparked a serious controversy and generated a crisis in CMR. The consecutive chain of events included the sudden collapse of the Prime Minister Sharon, a strongman and an architect of the Gaza pull-out, and increase of the missile attacks against Israel from the disengaged area. By summer 2006, the Israeli cabinet, now led by Ehud Olmert, a leader of the *Kadima* Party which political platform was centred upon a continuation of unilateral disengagement, found itself amid the Gaza legacy-triggered political crisis and falling approval ratings, coincidentally aggravated by corruption scandals. In this situation the Lebanese militant movement *Hezbollah*, also known as the Islamic Resistance (IR), on 12th July 2006 ambushed an IDF patrol on the Israeli-Lebanese border, killing eight servicemen and taking two more as hostages. Hours after this surprise attack, the Israeli cabinet took a decision to launch a major retaliatory military operation.

The analysis of the military aspects of the Second Lebanon War is not the purpose of this article, so the course of action will be explained only briefly. The war lasted thirty-four days. Using the overwhelming airpower, the IDF tried to destroy the Islamic Resistance's infrastructure (this effort was associated with extensive collateral damage), while ground units carried out several forays into the enemy-controlled territory in southern Lebanon. However, despite the adversary's technological superiority, the Islamic Resistance was able to continue striking Israeli territory with barrages of missiles until the ceasefire, and employed effective anti-armour weapons and tactics against advancing IDF units, inflicting Israel with losses and psychological blows. The eventual politico-military outcome of

the war for Israel became negative. The regional superpower was not able to defeat a paramilitary entity. In the settings of asymmetric conflict, an absence of victory for the state means a defeat, while the absence of a defeat means by default a victory for non-state actor. Such an ending has partially demystified the premises of invincibility for Israel; has empowered politically and psychologically its adversaries; has damaged Israel's image at the international podium; and generated a societal shock and public outcry in a country, where the notion of an undefeatable army and the infallible intelligence was so deeply embedded into the national psyche.[23]

**After-Action Review**

The negative result of war for Israel was predetermined, first, by a mere decision to launch hostilities having no clear goals, and furthermore aggravated by a lack of resolution and determination to conduct it in a way that could turn the tide into own favour. If the first part of this blame should be taken by the Israeli military, the second part of the responsibility lays equally on the civilian leaders.

The excessive clout of the IDF's top brass in the field of DMP played a crucial role behind the decision to go to war. Yet, as it was indicated by the course of action, the overconfident military establishment did not conduct their assessment and planning properly. First, the intelligence failed to establish the numerical, technical, organisational, moral and political strength of the foe, especially its sustained missile capability, will to fight, and stamina. Second, demonstrating an inclined doctrinal approach, particularly lobbied by Dan Halutz (then CGS), himself a former Air Force pilot, the IDF operational planners overestimated the utility of air supremacy and conventional Israeli-type armour blitzkrieg against a fluid non-state adversary blurred into the civilian environment. Third, from the operational and training perspective, the factor of the 'COIN fatigue' – an adverse effect of a half a decade-long urban counterinsurgency duties in the territories on the army readiness and fighting capabilities[24] – was definitely not taken fully into account. Fourth, the military establishment expected from the government a clear mandate to do its job until the desired end, without its micro-managerial interference into operational and tactical spheres. Lastly, it appears that the IDF top commanders believed the civilian leaders would be able to

tackle the international entourage, gaining support for war from the Israeli allies and mitigating any negative external political and legal effects of the military operation, in the territory of a sovereign country and its resulting collateral damage.

On the civilian side, the IDF leaders were affected by under-determination and a lack of resolution. Though there is no documented evidence, it appears that the head of the cabinet, being under the stress of the domestic political crisis and the criticism from the opposition, the media and a hard-line segment of society (the Orthodox Jewish communities, the religious right and migrants from Soviet Russia), used the 12 July attack as an opportunity to demonstrate the 'iron fist' approach by a low-cost application of military power. The expected benefit would be a sense of national unity so clearly demonstrated by the Israelis in previous war campaigns that effectively diverted public attention from the domestic political controversies. At that point, the political calculations of the prime minister and his party leaders met the hawkish stand of the IDF and the General Staff, whose professional advice assured rapid success.

However, when developments on the ground went awry, the civilian leaders, foremost Prime Minister Olmert, displayed an absence of a robust strategy and clearly defined objectives in the war. If at the very beginning of the hostilities, the prime minister had stated the ultimate war goals as a destruction of the Islamic Resistance, ending missile attacks and freeing two captured IDF soldiers,[25] the absence of a quick success combined with the continuing missile barrages and mounting casualties forced him to downsize his ambitions in the second week from 'eradication' to 'depleting' the enemy's capabilities.[26] Even worse, the prime minister affected the course of action by giving alternating 'green' and 'red' lights to the General Staff and the IDF Northern Command (in charge of the Lebanon front), forcing them to call off the already started operations. In particular, when the IDF finally was able to secure permission to launch a major onslaught, it was placed on-hold after forty-eight hours due to a ceasefire.[27] Such a pattern definitely hampered the conduct of the IDF, which objectively had capabilities to achieve more and make the strategic outcome of war favourable for Israel. Not surprisingly, it triggered criticism from the military commanders, quite an unusual fact during an ongoing war. On 11th August 2006 the General Staff issued a statement claiming that the 'ceasefire equals weakness.'[28]

There were additional factors influencing an unsure *modus operandi* of the Israeli leaders. First, Israel was subjected to sustained international pressure from the United States, the European Union and the United Nations to not push forward and end the war, as well as to a worldwide public rage by the death of innocent civilians in Lebanon – a development that was hardly unforeseen, given the kind of operational settings, yet still underestimated by the Israeli politico-military establishment.[29] Second, the shifted modalities in Israeli public opinion were not properly calculated either. A degree of popular support for the war (PSW) caused a major impact on the overall state of CMR. The 2006 war became the first major external armed conflict fought by Israel in a quarter of a century, since its 1982 invasion of Lebanon. And it has clearly demonstrated that changes in the global and regional security environment, combined with the political, economic, social and demographic trends occurred at a national level, have influenced a significant shift in Israeli public perceptions. It appears that many citizens lost their confidence not only in the executive power but also in the IDF – a new phenomenon in Israel where levels of trust and support to the military has long been high.[30] The evidence was the anti-war protests, which started as early as at the first day of the operation. One of the major contributing factors to such a shift was the media and 'blogosphere'. In particular, the media's battlefield reports raised public fear of high losses, effectively contributing into a reluctance and indecisiveness in the cabinet, caught between the international pressure, public opinion and its own General Staff. A final aspect to mention is a personality factor, which played a negative role both behind the decision to go to war and its misconduct. The coincidental trio of Prime Minister Olmert, the Defence Minister Perez and CGS Halutz displayed a set of professional ineffectiveness, ethical failures, political spin and other misdoings.[31]

## Summary of case study one

The set of inherent flaws and pathologies in the Israeli DMP led to a wrong decision to start a war and its incompetent conduct at the strategic leadership level. Such an outcome became, in many ways, a result of a strong voice that the IDF European General Staff had in the DMP.[32] The professional expertise monopoly and information asymmetry created a mode somehow resembling a notorious 'cult of the offensive' affecting

the European General Staffs prior to the start of the First World War.[33] A relatively weak participation of the civilian side in the DMP, combined with the set of domestic political considerations not related to national security concerns, made it possible to sanction the major war operation, where results and the end state were not calculated well. While starting the war to demonstrate its determination and will, the civilian leadership acted in exactly opposite way. Tactics, operations and strategy became hostages to political limitations. As it was put by the independent inquiry commission set up upon the end of war, its outcome was predetermined by the systemic failure and existing of serious problems in the field of national security and defence that made possible to launch the military action by a narrow circle, without clear plan, realistic goals and considering alternative options. The war was a product of the 'severe failures of judgment, responsibility and prudence'[34] of the top government civilian and military leaders, foremost the prime minister, the defence minister and the CGS.[35]

## Case study two: Georgia 2008
## Overview of civil-military relations

Though Georgia traces its statehood back centuries, it was long interrupted by its inclusion into the Russian and Soviet-Russian empires, what led to a lack of either democracy or military tradition.[36] The sudden demise of the Soviet Union in 1991 found a newly emerged country in the situation of ethnic conflict, absence of sufficient institutions and a severe economic crisis, all of which affected the emerging national defence system. The new Georgian military forces were not homogenous, being a mix of professional cadre, i.e. officers of Georgian ethnic origin, incorporated into the national army from of the Soviet armed forces, the self-styled paramilitary units, raised by different political and regional leaders, personal security details, and even the armed criminal groups, still acting under official military colours.[37] Not surprisingly, such an army lacked discipline and the chain of command, was involved in politics and could not be regarded as an effective fighting force. The miserable state of the military became a major factor contributing to Georgian defeat in the wars with the secessionist regions of South Ossetia and Abkhazia during 1992-1993. An outcome further demoralised the Georgian armed forces (GAF) and diminished its credibility in the eyes of public to a low mark.[38] One of the representative polls conducted in 1997 indicated only fifteen

per cent of citizens believed that the GAF influence in society and government was at the average level, while all others marked it as low or none.[39] Scarce financing, low pay and a corrupt enlistment system, which brought into the army mostly young people from marginal social strata, unable to pay ransom to avoid conscription, also reduced the prestige of the military. As far as the officer corps was concerned, in the second half of the 1990s and early 2000s it was affected by politicisation, corruption, and became involved into a series of conspiracies and mutinies, followed by purges conducted by the Ministry of the Interior and security services used by the government as a counterbalance in the context of encouraged interagency rivalry.[40] The institutionalisation of the GAF remained formal and still bore hallmarks of the Soviet system, with the Ministry of Defence led by a uniformed officer, and the General Staff incorporated into it as its integral structural component. The frequent rotation in the command echelon generated a permanent institutional instability in the forces.

The regime change of November 2003, via the 'Rose Revolution', which turned Georgia to a road to democracy, caused important implications in the domain of security and defence. The new regime under the presidency of Michael Saakashvili launched an ambitious security sector reform (SSR). Its parameters included the transformation of the defence hierarchy by 'civilianisation' of the Ministry of Defence, separation of its functions (policy, administration, personnel issues, finance and budget, acquisition) from the General Staff (operations, planning, and training). Upon the introduction of 'jointness' of the GAF, the General Staff was converted into Joint Staff. All non-statutory armed groups under the formal auspices of the GAF were disbanded. The draft was abolished and replaced by the downsized and restructured all-volunteer force, strengthened by the professional non-commissioned officer corps and the newly formed reserve forces. The Soviet-era vestiges of the officers' corps were gradually replaced by a new generation, trained in the West or domestically under Western programmes. The technical modernisation programmes kicked-off. A system of legislative oversight and judicial control over the GAF, intelligence and law enforcement agencies was created. The Ministry of Defence, Chief of the Joint Staff and senior commanders' nominations, as well as the defence expenditures, were to be approved by the Parliament. The basic documents in the field of national security and defence (the National Security Concept, the National Military Strategy, and the Strategic Defence Review) were adopted.[41] Finally, broadening

international military cooperation and partnerships, the documented aspirations to join NATO, and deployment abroad for international peace-support missions (in 2008 Georgia became the third largest contributor of troops to Iraq),[42] also strengthened the civilian control over the GAF and shaped Georgian CMR.

A remarkable dimension of the Georgian defence transformation was its speed: most of the above mentioned actions were undertaken in the time-span of two or three years. It became a significant achievement given the previous weak state of the GAF, complexity of the security environment, overall institutional and political challenges and a lack of experience. The transformation was met by a positive consensus in the mainstream of Georgian society, shared either by pro-government and opposition political forces, and despite of the conventional wisdom that the defence establishments are usually resistive to change,[43] it was met with the support of the GAF itself. NATO partners viewed both the speed and quality of the Georgian military and defence reform that fostered the civilian control over the military as a success story and a showcase for the post-Soviet space.[44]

**Flaws in DMP**

However, the post-revolutionary SSR in the country also bore a negative dimension, related to the specifics of the new Georgian regime and patterns of its decision-making process. The DMP in the field of national security remained drastically opposite to the positive changes described in the previous section. The set of its shortcomings encompassed five positions. The inherent nuisances in the mechanisms and functionality of the DMP caused a logical chain that had drove Georgia into a strategic trap in August 2008:

**1. Role of inner circle**

Soon after the regime change, stabilisation and the initial reforms, the political processes became increasingly isolated from mainstream society in the relatively narrow elitist spheres. More specifically, the entire spectrum of decisions in the national security and defence became monopolised by a self-contained group of close confidants of the president. That non-institutionalised and non-transparent pattern

contributed decisively into what was described as 'sometimes impulsive and irrational decision-making.'[45] The internal dynamic of the circle was predetermined by cronyism, personal ambitions and rivalry. The former long-standing 'comrades-in-arms' from the opposition movement, turned towards being a ruling party, were appointed to the key positions of the Ministers of Defence, Interior, Foreign Affairs or Prosecutor General.[46] Having scarce experience in state governance, the mentioned group and its associated often displayed adventurism, voluntarism, revolutionary mentality, impromptu reactions, obsession with public relations, and machismo.[47] The personal ambitions of the circle's members were further translated into interagency competition over the resources and influence on the ministerial level, primarily in the Ministry of Defence – Interior Ministry – intelligence triangle. The culmination of conflict of ambitions came in 2007 in an overt row between Saakashvili and his Minister of Defence Okruashvili who clearly demonstrated an intention to intercept national leadership in the atmosphere of growing political crisis.[48]

## 2. Hollow institutionalisation and 'presidentialism'

The excessive role of the inner circle's members in the DMP was well hidden behind their status of the National Security Council's members. In fact, the democratic institutions were 'hollow' with formal democratic requirements fulfilled, yet the individual strongmen exercising a negative clout on key decisions in the national security domain. This is true about the president himself, who, being formally restrained by the constitution, in practice, however, exerted excessive influence and was able to overcome formal checks and balances. A strong faction of supporters in the Parliament enabled Saakashvili to mitigate the checking role the legislative branch in such matter as appointment of the defence minister and the Chief of the Joint Staff.[49] That objectively led to an increase of dependency and subsequent personal loyalty of the defence establishment to a president and negation of such relevant parliamentary oversight tools as promotion and defence budget.

## 3. Distorted grand picture

Lack of experience in the inner circle precipitated in an inaccurate strategic analysis of global and regional trends, and the equally imprecise assessment of the nature of the challenges and threats to the Georgian national security. An overblown vision of the international and regional

role of Georgia and an excessive overestimate in the extent of homogeneity and influence of the international community generated by the Georgian leaders[50] led to the country's placement into a field of contradictions between the United States, Europe and NATO, from one side, and Russia from another side.[51] In practical terms, it resulted in misperception that Georgia enjoyed external security guarantees, though neither NATO nor any individual country assumed such obligations. Miscalculations in strategic assessment resulted in the wrong framing of Georgian national security and defence and strategy. While the *Military Doctrine* (2005) envisaged the likelihood of the external aggression and major conventional war, the *National Security Concept* (2005), the *Strategic Defence Review* (2007) and the *Minister of Defence Vision* (2008) regarded it as a remote possibility.[52] Such an obvious conflict in strategic and politico-military analysis caused an effect on the entire system of the forces training, operational planning and procurement. The lasting impact of conflicts in Abkhazia and South Ossetia placed the main emphasis on the low-intensity conflict and the COIN-type operations;[53] on the other hand, the political commitments have distracted part of the Georgian army resources to peace support missions, mainly to Iraq.

## 4. Disenfranchised defence establishment

Relationship between the elected political leaders and the military command under Saakashvili remained asymmetric. Top commanders were still promoted on the basis of 'adverse selection' through their personal loyalty and political affiliation rather than professional background. For example, Major General Zaza Gogava, a technician by education and a security officer by trade, served as the Chief of the Joint Staff from 2006 till 2008, including the war. While gradually decommissioning the senior officers of the Soviet era, the GAF, paradoxically, partially retained the Soviet military institutional culture and mentality centred upon unconditional obedience to the government and non-judgment execution of orders combined with inertia and lack of initiative, enforced by the Ministry of the Interior, which assumed functions of security clearances.[54] The military command, being politically controlled and dependent, had a remarkably weak voice in the DMP, received distorted strategic inputs from the politicians; enjoyed limited information awareness; suffered from institutional instability due to frequent rotations; and subsequently, was preoccupied by career survival. Neither the Chief of the Joint Staff nor his

subordinates performed actively in their capacity of professional military advisors to the president and the government. This function, instead, often was over-abused by the civilian Ministry of Defence, notorious by micromanagement and meddling into purely professional issues. Beyond the Ministry of Defence, other high-ranking civilian officials also had an unjustified influence on the local commanders and could issue them orders bypassing the chain of command. Consequentially, by 2008 Georgia's political leaders and the top military commanders were contained in two almost separate ivory towers. The defence establishment failed to deliver their civilian leaders an understanding of the whole range of dire consequences running out the potential major military confrontation with Russia. Moreover, the Joint Staff's passiveness objectively instigated more proactive warmongering posture of the government.

## 5. Politico-ideological inclination and populism

Many post-2003 decisions in the field of defence and security were obviously driven by politico-ideological motivation. This is true, in particular, for the rapid abolition of compulsory military service and subsequent introduction of the all-volunteer recruitment system. Like in some other post-communist countries, [55] the former was regarded in Georgia as an atavism of the old regime while the latter – a symbol of democracy. Also, an abolition of the unpopular draft – regarded nationally as a kind of serfdom – was converted into political capital. However, the new system – a peacetime professional core force and an augment wartime reservist force – which replaced the dismantled conscript army was introduced too fast, without taking into account the strategic environment and the politico-military dynamic, and apparently failed to function during the August war. The declared aspirations to join NATO, singled out as a central manifesto of the political course, placed an additional pressure on the practical implementation of defence sector reform. The policy-induced excessive speed in such complex and sensitive process as SSR, especially in the on-going conflict environment, could not be always justified. Overall, the populist trends started to cause a more negative effect on DMP when the failures of the government turned the mood of the citizens against it. In such conditions the incentives to use external tensions to divert population's attention from the socio-economic problems have increased significantly,[56] making the public *idée-fixe* of the

'restoration of the Georgian sovereignty' an indispensable politico-propagandist trump card.

Thus, despite of the agile defence and security reform in Georgia, conducted in a remarkably short period of time in the challenging environment, the emerged system nonetheless had a major weakness centred upon the misbalanced decision-making mechanisms and procedures, or, more precisely, the factual lack of such. That fact, notwithstanding of fulfilment of almost all other requirement of the SSR and CMR made the whole process hollow and contributed in a disastrous chain of strategic blunders that drove Georgia into a war with Russia in 2008.

**War: Guns of August**

The magnitude of the crisis in the breakaway Georgian 'republics' of Abkhazia and South Ossetia supported by Russia had been gradually increasing since 2004. The turning point came in April 2008 when the NATO summit in Bucharest postponed granting the Membership Action Plan to Georgia, instead limiting itself to political declarations in support of the Georgian aspirations to join the alliance in the future. The event was interpreted as a setback in Tbilisi and a success in Moscow. Consequently, the military tensions in conflict zones further increased. In this context, by mid-summer 2008, Russia moved significant military forces to its southern border under cover of the drill. Overplaying this move diplomatically, the Georgian side, however, failed to assess Russia's real intentions and take precautionary measures. In the first days of August of 2008, the situation in South Ossetia escalated to a level of an overt confrontation with the use of heavy weapons between the separatist and the government forces. Though the accounts of the sides are differ completely what is clear that in early morning August 8 the local Georgian units entered the separatist enclave under direct order of the president, triggering a prompt and massive intervention of Russian military forces deployed at the border. After forty-eight hours of fragmented and chaotic engagements with the Russian and separatist forces and the loss of command and control, the Georgian army units started to roll back, disintegrating and abandoning equipment and weapons. By day three, after a flurry of hawkish but contradicting statements leaving with a low understanding of the Georgian strategic goals, the government claimed a

'unilateral ceasefire', spreading a nation-wide panic. The Russian advance into the Georgian mainland territory was stopped only under sustained international pressure.[57]

Thus, within five days Georgia suffered a humiliating defeat, lost the last controlled parts of the breakaway territories and suffered substation human and material losses. The war triggered a severe international crisis far beyond the region; provided a serious test for Western relations with Russian; damaged trans-Atlantic solidarity; postponed the admission of Georgia to NATO; and caused a long-lasting negative effect on the entire democratic political and economic development of the country.

## After Action Review

Georgia is a newly independent country with a developing democracy and political system. In 2008, it still had no sufficient experience in statehood, or enrooted defence and national security system, and possessed a modest set of military capabilities. Starting war in such conditions against an overwhelmingly superior adversary is an irresponsible act. However, the ambitious political leaders and the inept military commanders sought to make the impossible possible. Georgia's leaders made a profound failure. Apparently, having no clear strategy vis-à-vis the breakaway regions and mounting Russian pressure they applied instead the Napoleonic principle: engage first and then see. The stress caused by domestic political instability increased the utility of the external threat. The Georgians overestimated the protective potential of NATO and/or the United States, confusing political declarations with the *realpolitik*.[58] Misperceptions, overconfidence and gambling of the inner circle were well calculated by the other side that made it possible to double-cross and lure Saakashvili into a devised trap.[59]

Georgia failed a victim of its own civil-military disconnectedness. An impulsive order on the president's part to start military action in South Ossetia apparently became a strategic surprise for Georgia's own command rather than for the Russians. It is indicated, particularly, by the peacetime posture of the GAF, which had quite a limited military force (less than two brigades) in the area of operation at the start of hostilities. An advance into the separatist-held area has not been pre-planned and coordinated with the Ministry of the Interior's internal security troops that

operated independently. The role of the Joint Staff in coordination of operations was about zero, and the whereabouts of the Chief of the Joint Staff, who remained incommunicado throughout the war, was difficult to establish. The operational command role was entrusted to Brigadier General Mamuka Kurashvili, a secondary military commander, whose political statement of the operation's goal as 'restoration of constitution order', issued in the first hours of open hostilities was quickly overplayed by the other side as a justification of intervention, though being dismissed as unauthorised by the Georgian government after the war. At the same time, for instance, the Minister for Reintegration Affairs was making statements related to the conduct of operations and allegedly meddling into chain of command to influence course of action. Tactically, the Georgian units performed relatively well compared to the numerically and technically superior adversary force; however, they had no chance in the general setting of overall confusion and paralysis of the supreme command. The mobilisation of reserves, declared by the president, failed; the Abkhazian front gave up ground without fighting; a large amount of weapons and military equipment was left intact and taken by the Russians; the Navy failed to obey orders to fight and was destroyed at its home base.[60] The quintessence of the strategic civilian-military disconnectedness was coined in the leaked post-war United States report, which described the GAF as 'over-centralised, prone to impulsive decision-making, undermined by unclear lines of command, and led by senior officials who were selected for personal relationships rather than professional qualifications.'[61]

**Summary of case study two**

The entire range of the negative outcomes for Georgia surfaced on the aftermath of the August war, were caused by a set of misperceptions, misinterpretations, miscalculations, mismanagements and misdeeds of the unchecked civilian leadership, from one side, and inaction, low professionalism and blind subordination of the senior military commanders. Starting a war against a powerful and well-prepared foe in the condition of not-guaranteed foreign support was an obvious dereliction of duty by the Georgian leaders who have altered a conduct of a realistic strategy by the public relations campaign at the international and domestic levels. The centre of gravity of the whole mayhem became a non-institutionalised and distorted decision-making process in the

critically important domain of national security – a missing link in the system of CMR in Georgia.

## Conclusions and recommendations

The two reviewed cases, which have been placed across different regional, political and conflict settings, display a common denominator. Both Israel and Georgia had their systems of civil-military relations either firmly established or shaping in the right direction. In particular, the problem of civilian control, which still dominates discussion in CMR research field, was not so relevant. However, another important CMR component – an interaction in handling national security issues between civilian leaders and their military agents, otherwise known as a decision-making process, emerged instead as a significant spoiler in the Israeli and Georgian civil-military relations. Both countries paid a high price for that during hostilities they entered in exactly due to their asymmetric and unhealthy DMP. Both were wars of choice rather than wars of necessity. Hence, a number of conclusions with broader applicability are extracted from the two cases. While being generalised, these observations may partially serve as a basis for policy recommendations in handling national security issues, as is summarised below:

**1.** The DMP must be treated as an inalienable integral component of the CMR architecture.

**2.** To perform effectively, DMP requires a maximal institutionalisation.

**3.** The essence of DMP is the input-output equation where civilian leaders provide political and strategic directives, while military commanders deliver professional expertise and execution. Joint civilian input and military output produce the 'grand strategy'.

**4.** DMP is mutually reinforcing. Its machinery should be well calibrated and balanced through a division of labour between proper institutions and agencies, which make the national security a 'system of systems'. Any asymmetry would likely cause a systemic dysfunction, as in the Israeli case with strong military influence on DMP and a 180-degree opposite case in Georgia. Self-containment or isolation of any of two DM domains should be considered as a serious national security risk.

**5.** Professional military expertise is a crucial product delivered by the defence establishment to its civilian principals. Generals should transmit an utterly straight message, highlighting all aspects and potential outcomes of desired actions, including negative ones, and honestly underlining 'cans' and 'cannots' notwithstanding whether politicians want to listen. Not only is this a responsibility of the top military command to make a thorough assessment, but also to maintain a clear voice in explaining perspectives of the anticipated war or other form of use of force, as well as potential scenarios, required resources and expected associated cost.

**6.** A robust National Security Council plays a paramount role in coordinating a unified effort of all civilian and military institutions engaged in the field of national security planning. A conceptual framing, in the form of a National Security Strategy or similar document, is equally important.

**7.** The Ministry of Defence, led by civilians, should play a role of a primary enabler of the link between the civilian leaders and military establishment, synthesising political guidance and the military expertise.

**8.** The legislative branch may play an important oversight role in DMP. However it does not have an immediate effect usually required in the rapidly evolving and time-critical contingencies. Rather, it causes a long-lasting oversight influence on the executive branch. Moreover, it is objectively restrained by a multiparty politics. The judicial branch has a high post-event role in DMP by revealing and correcting failures that might have already occurred.

**9.** The factor of the personality of the top civilian and military leaders, especially of the Supreme Commander-in-Chief, plays an important role even in democratic settings. Weak or negative leadership patterns may occur in resonance with the existing organisational pathologies and cause a combined adverse impact on the entire process.

**10.** Even in democratic countries, the certainty of domestic political and socio-economic variables, such as crises, corruption scandals, legal investigations, the opposition's pressure, or falling approval ratings, may generate incentives among the elected executive officials that will divert the attention of the society from the external irritators.[62] Such trends must

be purged from the list of rationales of going to war in favour of pure national security considerations. In order to check logic of political survival by a 'small victorious war', the role of legislative and judicial power should be supported by a qualified expertise of the defence establishment. The dependence of the latter in status and financing should be distributed evenly between executive and legislative branches of power and not centre solely upon one.

**11.** Politicisation causes negative impact on DMP, which should not be managed by universal solutions. Ideology should not prevail over realistic national security considerations, as in Georgia's case, where an accelerated transfer from conscription to all-volunteer recruitment was regarded as a 'silver bullet' of democratic SSR.

**12.** The democratically-elected leaders, prior to taking a final decision to resort to the use of force, must have both a clear understanding of goals and a vision of the exit strategy. After the first shot made, they need to maintain determination and resolution in achieving desired objectives. Altering of strategic course under external or domestic pressure amid started operation would likely cause a negative effect on the entire outcome. Even a modern, professional and effective military force may fail in executing otherwise achievable missions if affected by poor strategic input and flawed guidance by the political leadership. Starting an unprepared war of choice without a clarity of goals or exit strategy is a severe abuse of power by elected leaders and a dereliction of duty by top commanders that should be prevented by accountability and high domestic audience cost.

**13.** To envisage and assess the potential impact of wars, any nation requires a set of analytical capabilities institutionally embedded across the entire national security spectrum, i.e. intelligence agencies, strategic planning departments, think tanks, etc. However, its influence should not go beyond the red line and limited only to policy advice rather than policy influence.

**14.** The potential impact of the media factor on a state of CMR in general, and a degree of PSW in particular, in the societies engaged in a dynamic armed conflict should be examined thoroughly. Both the civilian leaders and the military commanders need to foresee that in the future

asymmetric conflict settings the non-state adversaries not bound by the international humanitarian law would likely to exploit zero-tolerance attitude of democratic societies towards innocent lives loss as a strategic force multiplier and use it to lever PSW, and consequently, the DMP, in the country they fight with.

To conclude, it is important to stress once again a key point: national military power is one of the ultimate assets of the state. To convert its use into success one requires effectiveness. Properly balanced CMR creates the frame to facilitate such effectiveness, and the decision-making process is at the very heart of it. In other words, DMP in the field of national security is a continuation of CMR in its highest form. As is proved by the cases of Israel and Georgia, both have been answering most if not the entire requirement of democratic CMR. Yet, they lost their cause because of a crucial missing link. The decision-making process that failed to function properly in enabling a dual-way interaction between the civilian leaders and military commanders caused blackout – twisted awareness and loss of communication between two domains. Paraphrasing Carl von Clausewitz, it may be described as a 'fog of civil-military relations'. The bad news is that tensions and frictions between the leaders and top brass will always persist. Yet, the good news is there a way to mitigate it. The skills, responsibility and honesty of elected politicians and the professionalism, corporate ethics and integrity of the military remain the only way to bridge existing or emerging gaps in CMR and DMP. This is correct for any country considering the likelihoods and options to fight for its cause.

**Matrix (1): Civil-Military Relations**

| Categories | Israel | Georgia |
|---|---|---|
| **Political system** | Established democracy | Emerging democracy |
| **Military recruitment system** | Overall compulsory draft service | All-volunteer, augmented by mobilised reserves in wartime |
| **Level of military professionalism, technical sophistication and quality of personnel** | High | Low to medium, was gradually improving |
| **Politicisation of the military** | None[63] | Mostly eliminated |
| **Civilian control (subordination to political authority, legislative and judicial oversight, budget transparency, etc)** | Fully established | Mostly established, yet still incomplete |
| **Mode of civilian control** | Objective | Formally objective, de-facto subjective |
| **Institutionalisation (i.e. the civilian Ministry of Defence, separation of functions of the Ministry of Defence and General Staff)** | High | Medium |
| **Security sector reform mode** | Non applicable | Intensive |
| **Professional military education system** | Established | Have been introduced and developing |
| **Societal respect to the military** | High | Medium to high |

## Matrix (2): Decision-Making Process

| Categories | Israel | Georgia |
|---|---|---|
| **Pattern of DMP** | Institutionalised, formal | Less institutionalised, mostly informal |
| **Underlying causality** | Highly threatening security environment | Late independence, lack of statehood experience, inherent instability of the transition period |
| **Systemic vs. subjective factors (i.e. organizational patterns vs. personal leadership patterns)** | High systemic influence vs. medium subjective influence | Low systemic influence vs. high subjective influence |
| **Inner circle, its role and origins** | Medium; based on professional background and less on political affiliation; dominated by the military | High; based on the personal proximity and informal relations; dominated by the civilians |
| **Role of the military in DMP** | Excessively high | Insufficient |
| **Role of the civilian Ministry of Defence** | Relatively weak | Excessively strong |
| **Role of the General Staff or Joint Staff** | Excessively strong | Too weak |
| **Role of the National Security Council** | Relatively low | High (de-facto was an inner circle) |
| **Role of the intelligence services** | Excessive for the military, relatively low for the civilian intelligence agency | Not clearly defined in case of the civilian agency and very low for the military |
| **Role of the Foreign Ministry in DMP** | Relatively low | Formal |
| **Influence of the legislature (through oversight)** | Relatively low, restrained by party politics | Low, partially paralysed by factionalism and |

| | | President's clout |
|---|---|---|
| **Influence of the judicial branch** | High; however, had its impact at the after-action assessment stage and in future improvements only | Low to zero |
| **Threat perception / expectation of war** | Very high | High to medium |
| **Information asymmetry mode** | In favour of defence establishment (monopoly on professional expertise and intelligence info) | In favour of political leadership; the military had very limited awareness of the overall strategy and future actions |
| **Impact of protracted low-intensity conflict prior to war, deforming the military capabilities and CMR** | Urban counterinsurgency operations in the Palestinian territories | Tension on the borders of breakaway territories of Abkhazia and South Ossetia |
| **Impact of domestic political crisis prior to war** | Falling approval rating, crisis of confidence, cabinet corruption scandals | Crisis of confidence, growing political opposition pressure, violent street protests and its crackdown |

## Matrix (3): Conduct of War

| Categories | Israel | Georgia |
|---|---|---|
| **Type of conflict** | Asymmetric war (state vs. non-state actor) | Traditional (interstate) war with secondary involvement of non-state actors |
| **Duration of conflict (days)** | Medium (34) | Short (5) |
| **Major strategic** | Absence of success, | Severe defeat and |

| outcome | prestige damage, moral and setback | slowing down of democratic reforms |
|---|---|---|
| **Domestic political outcome** | Government eventually replaced | Government remained largely intact; yet, a societal crisis of confidence has grown |
| **Mission accomplishments vis-à-vis stated objectives** | Quite limited; the adversary left largely intact and even empowered | Fixed territorial loss contrary to desired restoration of sovereignty and integrity |
| **Public support to war** | High initially, became waning upon lack of success | High to medium |
| **Overall impact on CMR** | Largely remained intact; certain decrease of public confidence in the military | Highly negative; a reverse politicisation of the military |
| **Post-war inquiry commission** | Governmental inquiry commission, results revealed publicly | Internal investigations, very limited information released |
| **Adaptation of lessons learned** | The military system is apparently transforming; the impact on the DMP is unclear due to an opaque nature, but, presumably, undergoes adaptation as well | Need of transformation is recognised in the political discourse; however, real action appears to be withheld, hampered by internal political crisis |

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[1] discalaimer: This article represents the views of the author and not of the Azerbaijan MOD.

[2] Yoram Peri, *Generals in the Cabinet Room: How the Military Shapes the Israeli Policy* (The United States Institute for Peace: Washington DC, 2006): xi.

[3] Yagil Levy, 'How Militarisation Drives Political Control of the Military: The Case of Israel', *Centre for Studies of Social Change – New School for Social Research*, http://www.ciaonet.org/wps/ley01/index.html (accessed 18/11/2009).

[4] Oren Barak and Gabriel Sheffer, 'The Study of Civil-Military Relations in Israel: A New Perspective', *Israeli Studies* 12 (Spring 2007): 4-5.

[5] Peri, *Generals in the Cabinet Room*: xi-xii.

[6] Metin Heper and Joshua R. Itzkowitz-Shifrinson, 'Civil-Military Relations in Israel and Turkey', *Journal of Political and Military Sociology* 33 (Winter 2005): 235.

[7] Peri, *Generals in the Cabinet Room*: x.

[8] For a detailed account of the flaws in the Israeli DMP, see: Charles D. Freilich, 'National Security Decision-Making in Israel: Processes, Pathologies and Strengths', The *Middle East Journal* 60 (Autumn 2006).

[9] Heper and Itzkowitz-Shifrinson, 'Civil-Military Relations in Israel and Turkey': 234.

[10] Freilich, 'National Security Decision-Making in Israel': 641.

[11] Freilich, 'National Security Decision-Making in Israel': 654.

[12] Barak and Sheffer, 'The Study of Civil-Military Relations in Israel': 17-18.

[13] Freilich, 'National Security Decision-Making in Israel': 654.

[14] *Ibid*, 659.

[15] *Ibid*, 642 and 654.

[16] *Ibid*, 658.

[17] Kobi Michael, 'Military Knowledge and Weak Civilian Control in the Reality of Low Intensity Conflict – The Israeli Case', *The Israeli Studies* 12 (Spring 2007): 28-30.

[18] *Ibid*, 37.

[19] Uri Bar-Joseph, 'Military Intelligence as the National Intelligence Estimator: The Case of Israel', *Armed Forces and Society* 20 (May 2009): 1-2.

[20] *Ibid*, 5.

[21] *Ibid*, 14.

[22] Michael, 'Military Knowledge and Weak Civilian Control': 32 and Freilich, 'National Security Decision-Making in Israel': 650-651.

[23] Christopher E. Witting, 'When David Becomes Goliath' (MA diss., United States Army Command and General Staff College, 2001): 113.

[24] Jonathan G. Zagdanski, 'Round Two in Lebanon: How the IDF Focused Exclusively on COIN and Lost the Ability to Fight Maneuver War', *Infantry*, September-October 2007: 32-35.

[25] The campaign goals were presented by the Prime Minister to the *Knesset* on the day five of the war and gained parliamentary support at the time. See: Judith Palmer Harik, *Transnational Actors in Contemporary Conflicts: Hizbullah and its 2006 War with Israel* (Cambridge, Massachusetts: Harvard University, 2007), 13.

[26] *Ibid*, 18.

[27] Zagdanski, 'Round Two in Lebanon': 35.

[28] Amos Harel and Avi Issacharoff, 'The General Staff: Cease fire Equals Weakness', *Haaretz*, 11th August 2006.

[29] Israel believed that the 12th July attack gave it the necessary legitimacy for its response in front of the international community. For details, see: Harik, *Transnational Actors in Contemporary Conflicts*: 12.

[30] Amir Frayman, 'The Second Lebanon War: After the Dust Has Settled', *The Henry Jackson Society*, 9th November 2006,
http://www.henryjacksonsociety.org/stories.asp?id=351.

[31] For example, as was revealed at the wake of war, the CGS had sold off his investment portfolio just three hours after the 12th July incident occurred. See: 'Lebanese Troops Deploy as Part of UN Ceasefire', *CNN*, 17th August 2006, http://www.cnn.com/2006/WORLD/meast/08/17/mideast.main/index.html.

[32] Peri, *Generals in the Cabinet Room*: ix.

[33] For details, see: Jack Snyder, 'Civil-Military Relations and the Cult of the Offensive, 1914 and 1984', *International Security* 9 (Summer 1984): 58-107.

[34] 'A Harsh, Healthy Verdict on Israel's War in Lebanon', *The New York Times*, 2nd May 2007,
http://query.nytimes.com/gst/fullpage.html?res=9B01E2DD103EF931A35756C0A9619C8B63.

[35] 'Official English Summary of the Winograd's Panel Interim Report', *The Wall Street Journal*, 3rd April 2007,
http://online.wsj.com/public/resources/documents/winogradreport-04302007.pdf.

[36] Levan Alapishvili, 'The Civil-Military Relations and Democratic Control on Armed Forces in Caucasus Region – A Comparative Study', *NATO*,
http://www.nato.int/acad/fellow/97-99/alapishvili.pdf.

[37] Nana Tsereteli, 'Civil-Military Relations in Georgia', *DCAF Conference Paper* (Geneva: Centre for the Democratic Control of Armed Forces, 2004): 4-6, http://www.dcaf.ch/legal_wg/ev_lucerne_03_Tsereteli.pdf.

[38] Alapishvili, 'The Civil-Military Relations': 17-18.

[39] Tsereteli, 'Civil-Military Relations in Georgia': 11.

[40] Alapishvili, 'The Civil-Military Relations': 18.

[41] Levan Tsutskiridze, 'Key for the New Strategy', *Apsny*, 4th September 2009, http://www.apsny.ge/analytics/1252098391.php (in Russian).

[42] Robert E. Hamilton, 'Georgian Military Reform – An Alternative View', *Commentary* (Washington, DC: Centre for Strategic and International Studies, 3rd February 2009).

[43] Alix Julia Boucher, *Defence Sector Reform: a Note on Current Practice* (Washington, DC: Stimson Centre, 7th July 2009).

[44] 'NATO's Relations with Georgia', *NATO*, 5th December 2008, http://www.nato.int/issues/nato-georgia/index.html.

[45] Hamilton, 'Georgian Military Reform – An Alternative View'.

[46] Gela Vasadze, 'Misha and His Team, Part I-VIII', *Apsny*, 26th October 2009, http://www.apsny.ge/analytics/1256603774.php (in Russian).

[47] An eloquent example is a personal participation of Irakli Okruashvili, then a Minister of Defence, armed and uniformed, in a police raid at the brothel for the truck drivers aired live at the Georgian TV. See: Vasadze, 'Misha and His Team, Part I-VIII'.

[48] *Ibid.*

[49] Levan Alapishvili, 15, and Vasadze, 'Misha and His Team, Part I-VIII'.

[50] Tsutskiridze, 'Key for the New Strategy'.

[51] Ekaterina Stepanova, 'South Ossetia & Abkhazia: Placing the Conflict in Context', *SIPRI Policy Brief* (Stockholm: Stockholm International Peace Research Institute, November 2008).

[52] Tsutskiridze, 'Key for the New Strategy'.

[53] Koba Liklikadze, 'Lessons and Losses of Georgia's Five Days War with Russia', *Eurasia Daily Monitor* 185 (25th September 2008).

[54] The passiveness of some post-Soviet militaries is partially rooted in the 1937-1938 purges of the Red Army by the Communist Party and its security arm that enabled a firm subjective control and created a model of an officer who executes orders without judgment ('do or die' and 'die but do'). Such archetype still persists in some countries that were once occupied by the Soviet Union even two decades

later, being transmitted through the traditions and education to the younger generations of officers.

[55] Edwin R. Micewski, 'Conscription or the All-Volunteer Force: Recruitment in a Democratic Society', ed. Thomas C. Bruneau and Scott D. Tollefson, *Who Guards the Guardians and How: Democratic Civil-Military Relations* (Austin, Texas: University of Texas Press, 2006).

[56] 'Georgia: The Risks of Winter', *Europe Briefing 51* (26th November 2008): 5.

[57] For a more detailed account of the military operations see: 'Independent International Fact-Finding Mission on the Conflict in Georgia: Report of the Council of Ministers of the European Union' *CEIIG* 2 (September 2009), http://www.ceiig.ch/pdf/IIFFMCG_Volume_II.pdf.

[58] Mamuka Tsereteli, 'The Impact of the Russia – Georgia War on the South Caucasus Transportation Corridor', (Washington, DC: The Jamestown Foundation, 2009): 24-25.

[59] C. W. Blandy, *Provocation, Deception, Entrapment: The Russo-Georgian Five Day War* (Shrivenham: Defence Academy of the United Kingdom, January 2009): 2 and 6-8.

[60] For details, see: 'Independent International Fact-Finding Mission on the Conflict in Georgia: Report of the Council of Ministers of the European Union' and Liklikadze, 'Lessons and Losses of Georgia's Five Days War with Russia'.

[61] Hamilton, 'Georgian Military Reform – An Alternative View'.

[62] Normally, internal crisis is a restraining factor for proactive foreign policy; however, both cases of Israel and Georgia demonstrate that the domestic political considerations played certain role in the rationales behind starting military campaigns.

[63] The IDF are not politicised as an entity; at the same time, many senior military commanders are engaged into politics individually, thanks to the blurred line between active and reserve service. Another purely Israeli phenomenon is an important role of the Chief Rabbi of the IDF, which sometimes is almost at the edge of the political sphere.

# Ground-Based Air Defence – The Porcupine Approach

*By LtCol. Stig Nilsen,*
*Royal Norwegian Air Force*

**Figure 1.** The Porcupine Approach.

## Introduction

Ground-based air defence, considered as a weapon system, first and foremost finds its relevance or legitimacy in a nation's basic need for sovereignty and homeland defence. It has a role alongside air surveillance, air policing, coast guard and the home guard. In NATO, air defence comprises both ground-based air defence and air defence fighters.[1]

Besides this primary rationale, ground-based air defence is also a sought-after capacity in international operations due to its broad spectre of attributes and its ability to interact with and complement other battle management command and control systems.

To borrow Frederick W. Kagan's thought, one can picture ground-based air defence as a porcupine, coated with sharp pines or spikes for protection against external threats.[2] While the pines on the porcupine's coat are effective close-up, it has no effectiveness on longer ranges. It is similar with ground-based air defence; range is the biggest disadvantage, although some systems are referred to as long-range systems. Compared with the fighter or fighter-bomber aircraft, those ranges are still limited

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either way. Ground-based air defence is mostly a defensive approach, by responding to an offensive act from an opponent. Nevertheless, it sends a clear message, "If you attack me, I will defend myself and you will get hurt". The main objective is, of course, to deter any opponent from attacking, but if an opponent still decides to attack there will be ramifications.[3] It is assessed to be advantageous for smaller nations that their weapons- or defence systems are of a defensive character.[4]

The core advantages of ground-based air defence systems are:[5]

a) High readiness over time

Compared to air defence fighters, ground-based air defence systems can stay on high readiness over a longer period of time. Fighter aircraft either need to come down for refuelling or be refuelled in air by air-to-air refuelling aircraft. This is resource demanding, and not all countries can afford them. Once combat ready, the ground-based air defence system normally only need refuelling once a day and the crew rotation can be performed whilst still on high readiness.

b) High fire power

Unlike air defence fighters, most ground-based air defence systems are configured with several missile launchers integrated to one or more fire control stations, which allows the system to handle more incoming targets at the same time. Some systems also comprises different types of missiles, or a combination of missiles and guns (much like most fighter aircraft) thus providing even more fire power when multiple engagements are required.

c) Low manning

Ground-based air defence systems do not require many personnel in the field-site to keep the system operational in order to provide the needed defence capability. Many of the functions are automated in today's modern systems, and therefor require fewer personnel to operate the system. However, it is necessary to modify this statement when it comes to mobility. When ordered to move to another field-site these systems require more personnel in order to perform all the needed tasks to become operational in the new field-site. When operational in the new field site, excess personnel may be released.

d) Short reaction time

Modern ground-based air defence systems are integrated with radars and tactical data links, providing the operators or decision makers with a

reasonably good situational awareness and air threats can quickly be reacted to and neutralized. Once inside the system's coverage, only a few seconds are needed to respond to the threat and with missiles with built-in active radar the operator can quickly turn to the next threat or target. The biggest disadvantage is related to mobility. Air defence fighters can move quickly to another area and perform its mission there due to its high speed and agility, which is not the case for ground-based air defence.

## NATO Air Defence

In NATO air defence is, in the broader perspective, comprised of four different but complementary elements:[6]

a) Surveillance: The Alliance needs the necessary resources to identify the threats and provide an optimal coverage of the Alliance airspace. This capability consists of air and ground surveillance and sensors with complimentary characteristics. The main task is to build a Recognized Air Picture, the Joint Environment Picture or the Common Operational Picture.[7]

b) Command & Control: Network command, control, communication and information systems, are necessary capabilities in order to integrate national and alliance capacities and systems. The system, or systems, should provide superior information leading to a faster planning process allowing the alliance (or a nation) to reach the necessary decisions faster than the adversary. NATO is asking its alliance members to invest in command and control systems that are deployable and with "reach-back" capability, meaning that it is possible to link-up with the existing command and control systems and entities in their homeland when deployed to conflict areas around the world.[8]

c) Active Air Defence: In NATO active air defence has all the capabilities needed to achieve the desired degree of control of the air, ranging from favourable air situation as the lowest degree, via air superiority to air supremacy being the highest degree of control of the air – that is, denying the adversary to use the airspace to achieve their own military and political goals. All assets contributing actively to obtain this are active air defence and consist of both ground-based weapon systems and air defence fighters.[9]

d) Passive Air Defence: When all weapon systems, air and ground-based, provides the active air defence – passive air defence on the other hand are all precautionary and preventive measures taken to reduce the potential effect of incoming threats. It comprises actions such as operational security, reducing electronic emissions, and steps to diminish the effects of weapons of mass destruction. In sum, we can say it comprises all actions or measures required to improve the survivability of the employed forces.[10]

## Ground-based air defence- a vital asset

Air defence in NATO, consisting of air defence fighters and ground-based air defence, will continue to be a vital asset in defence of the Alliance airspace. In the future also non-kinetic, directed energy weapons should be included in the Alliance arsenal. In the range of aerial threats, even rockets, artillery and mortars must be included, although these weapons are not yet within the remit of the NATO Air Defence Committee.[11] With regards to weapons of mass destruction and extended air defence, including ballistic missile defence, only a few nations are able to acquire such capabilities. These capabilities are far too costly for the majority of European countries – for the three Baltic States in particular, and they should focus their effort towards standard ground-based air defence. Although the overarching objective in NATO is collective security,[12] and this should fall nicely within the main military and national security objectives of the three Baltic States,[13] the Baltic States still need to improve their own defence capabilities.

In the Royal Norwegian Air Force ground-based air defence is considered to be an integral part of air power, or control of the air, as a complementary capability together with sea-based air defence.[14] With ground-based air defence as an integrated complementary capability, a nation can provide a scalable and flexible air defence system tailored to respond to a vast degree of air threats. Predictions of future security challenges depict increasing use of missiles directed towards both military and civilian objects.

Detecting and countering cruise and ballistic missiles demands enhanced surveillance and force presence over time with a high degree of readiness

and endurance. There is a short reaction time from when the target is identified by the sensor and until the shooter, or the weapon system, can react to the threat.[15] A continuous development of ground-based air defence systems to counter this is necessary and should be prioritized.

## Detect to engage – stand-down to survive

The threat posed by ground-based air defence, even by older short range missile systems and air defence guns, will force the manned air threat to climb to higher altitudes and rely on precision munitions,[16] or even be directed to fly around the ground-based threat. This means that ground-based air defence is a factor to be reckoned with when planning or conducting air operations.

General Michael C. Short USAF believes that traditional air to air combat has passed and that, in the future, airmen will have to counter an ever evolving ground-to-air threat. Because this threat is becoming an ever more serious threat to airmen, high technology suppression of enemy air defence and/or destruction of enemy air defence is needed in order to counter the ground threat.[17] This again might tell us that even if a nation decides to procure a modern ground-based air defence system for protection of own airspace and critical infrastructure, the opponent or adversary knowing this will bring sophisticated technology to counter this threat.[18] This leaves the air-to-ground and ground-to-air battle as a zero-sum game. As for other systems, acquiring ground-based air defence is not a one-time procurement.  Financial resources must be allocated in a through-life procurement to include the necessary upgrade programs to ensure that the ground-based air defence capability stays relevant.[19]

During Operation Allied Force, NATO air assets were not able to hit the Serbian ground-based air defence assets as intended, partly because of the widespread use of older anti-aircraft guns, which are not radar guided and therefore not vulnerable to high technology enemy air defence suppression tactics.[20]  Knowing this, one can say that any defence is useful for the defender. Nevertheless, according to Johnson and Meyeraan in their paper on deception techniques in Operation Allied Force and Desert Storm, the Serbians were not able to seriously degrade the effectiveness of Allied air strikes.[21] Technological superiority is only to one's advantage

when, in a symmetric context, irregular tactics by the opponent might reduce this advantage.

## Air surveillance and command & control

*"(...) the more warning, the better"*

John A Warden[27]

While air supremacy means the ability to conduct air operations anywhere without interference, air superiority provides freedom of movement and freedom of action to one's own forces, either locally or within a theater.[28] Air surveillance, or information gathering in support of situational awareness for proper decision making, is a key element of air superiority in particular, and for air power in general. Assets that conduct information gathering, computer technology to integrate the assets and support decision making, and equipment to communicate the decisions, are all elements of air command and control.[29] They are all essential elements to create the desired degree of control of the air, hence the differences between *air supremacy* and *air superiority* – and the lowest degree that is that is referred to as *favourable air situation*, that might be restricted in both time and space. Col. John A. Warden USAF argues that for air power, "*command is the true centre of gravity*".[30] In order to execute command over your air assets, air surveillance is not only a necessity – it is a prerequisite. Without a recognized air picture or a common operational picture, one is not able to effectively control one's air assets in the conduct of an air campaign. Nor can the air force provide the desired support to other services in the joint campaign.

During the Arab-Israeli conflict in the Bekaa Valley in the spring of 1982 the Israelis launched several attacks against the Syrian command and control elements. They attacked radars and surface to air missile sites, they used remotely piloted air vehicles (or drones) to lure Syrian radars to produce false target information by imitating fighter aircraft approaching Syrian territory. These operations made it possible for the Israelis to attack the active Syrian radars with anti-radiation missiles. The Syrians, on the other side, launched surface to air missiles at false targets, wasting their defence assets. When the Syrians launched waves of fighters against the Israelis, the Israelis jammed the Syrian communication system, disabling the Syrian ability to effectively command and control their air assets.[31] For

ground-based air defence integration with a command and control system that includes the air surveillance, capability is important in order to ensure that the necessary degree of situational awareness is shared and understood between the command and control centre and the tactical decision maker in the ground-based air defence unit.    Failing to do so could lead to fratricide, meaning that the weapon system attacks one of its own assets or forces. During the Falklands War of 1982 an Argentinean pilot who had used too much fuel and tried to make an emergency landing at Port Stanley Airfield was misidentified as an attacking British fighter and was shot down by Argentinean ground-based air defense.[32]

Improper situational awareness may also lead to *under-kill* or *overkill* situations. Under-kill means in this perspective that an attack is not interrupted by air defence, while overkill means that more than one air defence system is unnecessarily countering the attack. Modern ground-based air defence systems in NATO provide the operators with situational awareness through integrated tactical data links, a recognized air picture as an integral part of the alliance air defence network. In addition, support for optimal use of the ground-based air defence assets is available.  The NATO document *Generic Air Defence Capabilities* emphasizes that an integrated air defence system allows timely and accurate dissemination of intelligence information, early warning of emerging threats, target tracking and classification or re-classification of targets and, ultimately, target allocation.[33]

The importance of command and control for ground-based air defence might also be a vulnerability. If the command and control system is attacked the whole system itself becomes easier to destroy.[34] With modern technology one can place the command and control element at a safe distance from the main battlefield, and with physical protection such as armour or bunkering so that the command and control element can be even better protected. The command and control element may be attacked indirectly by attacking the sensors or the communication system, leaving the decision maker without the necessary information needed to decide which targets to engage, or even knowing whether an attack is imminent or not.[35] Today's technology allows systems to be in silent mode, by relying on remote sources and modern communication systems with frequency agility, and makes it harder to attack or disrupt these systems.  Taking into account the possible vulnerabilities, there are several

steps that can be taken to improve the survivability of ground-based air defence systems. These steps, known as passive air defence, will be covered later in this article.

## Active air defence

Ground-based air defence is normally defined as a part of *defensive counter air* system, together with air defence fighter aircraft, while attack and bomber aircraft normally fall under the heading of *offensive counter air.*[36] Ground-based air defence is, by its nature, a defensive system due to the fact that it is defending a nation, territory or object from an attacking force. This is compared to offensive assets that are intended to bring the battle to the opponent's territory. In NATO active air defence is defined as the ability to intercept or engage a target. Interception means that one is able to manoeuvre or position assets in such a way that one can identify, locate, escort and employ ordnance against a target.[37] Engagement requires the ability to interrupt a target attacking, by reducing - often called a soft kill - or nullifying the effect by a hard kill. To do this, layered air defence is required, which encounters the threat with different systems with complementary capabilities, and different engagement envelopes employed in increasing numbers.

Because threats can be multi-directional, and aimed at several defended assets at the same time, layered air defence systems should be able to engage multiple targets simultaneously.[38] Modern ground-based air defence systems are superior to air defence fighters in this regard because of the inherit ability to integrate several missile launchers into the fire control station and the superior situational awareness created by integration of different information sources into a single integrated air picture. Air defence fighters have few combat ready missiles mounted on their wings or inside the aircraft hull, and will need to land on an airbase or aircraft carrier for more ordnance and fuel.

On the other hand, the air defence fighters are superior to ground-based air defence systems when it comes to mobility. While an air defence fighter can move quickly to another area, or even another theatre to re-position itself to engage a new target, the ground-based air defence system requires both considerable manpower and time to do the same. Although a ground-based air defence system has a degree of tactical mobility,

meaning that the unit can move from one field position to another in a relatively short time, or can be relocated during the night, it is almost impossible to quickly move the same unit to another theatre or within the theatre to fill a created defence gap.[39] The consequence of this is that more units are required to provide a dense ground-based air defence network. In the conflict between Israel and Egypt in 1973 the Israelis used a combination of flank and penetration attacks, by using missile boats to hit at the north end of the Egyptian defence and simultaneously crossing the canal and attacking air defence batteries by ground attack.[40] This approach made it possible for the Israelis to break up the Egyptian defence line and isolate and destroy the Egyptian ground-based air defence batteries. Because of this the Egyptian air defence batteries were no longer able to mutually support each other an important requirement in layered air defense.[41] Ground-based air defence systems are vulnerable to land attack, and need to be protected because they are high value assets in the total air defence.

During the Falklands War in 1982, the Argentineans approached the British ships in low-level strikes, giving the British air defence only some 20 to 30 seconds to detect, track and engage before the Argentinean fighters dropped their munitions and turned away.[42] Although some Argentine attacks were successful, the Argentineans underestimated the modern and dense air defence capability of the British forces.[43] The British had a great number of anti-aircraft missiles and gun systems on their ships, and the land forces were well protected by the Rapier and Blowpipe ground-based air defence systems.[44] The Argentineans also made the mistake of forward deploying light air units with aircraft more suitable for counterinsurgency than for modern air combat.[45] Nevertheless, their low-level flying tactic was often successful and their attack and navigation skills were impressive. Still, the Argentineans lost many aircraft to the technologically superior British forces.[46] On the other side of the conflict, the Argentinean ground-based air defence was quite effective as well, shooting down seven British planes, including four Harriers fighters. The radar operators also performed well, warning off British assets and providing their own pilots with information on the defending Harriers' positions.[47]

A more recent example of air defence is the Russian-Georgian conflict of 2008, in which Russian air power was used in a traditional manner to

establish air superiority quickly to protect their lines of communication and their land forces.[48] The Russian Air Force also intended to neutralize or destroy the Georgian military using strategic attacks and interdiction on Georgian bases, facilities and military infrastructure.[49]



**Figure 2**. Russian air attacks on Georgia.[50]

Although they had superior forces, the Russians underestimated the effectiveness of the Georgian ground-based air defence. The actual numbers are subject to discussion, but Georgia claimed seven kills and Russia confirmed four. This shows that even less modern, even obsolete, ground-based air defence systems can be effective against traditional air threats.[51] The Georgian conflict also showed the importance of electronic integration of all ground-based air defence assets, viewed as the most significant deficiency of the Georgian ground-based air defense.[52] As noted earlier, this is one of the key requirements to NATO air defence capabilities.

A decade earlier, looking at the Serbian ground-based air defence during the Allied air campaign of 1999, the Serbs were effective in countering the

Allied air strikes. Many engagements where reported, but only two Allied aircraft were shot down and two more aircraft were damaged by nearby detonations that did not down the aircraft.[53] NATO, on the other hand, was not very effective in neutralizing the Serbian ground-based defence either. The consequence was that Allied aircraft had to fly above the existing threat, and high value assets such as airborne early warning aircraft had to orbit in less optimal, but safer, areas.[54]

NATO air planners had to continuously consider the potent Serbian ground-based air defence threat as the air campaign was planned.[55]

In defence it is important that one can inflict damage to the attacker, and ground-based air defence can only be decisive if it is able to inflict enough damage to the enemy in such a way that he sees the cost of continuing the attack is too high.[56] John Warden draws an example of this when he describes the difference between shooting down one per cent of the total amount of aircraft per day for ten days, compared to shooting down ten per cent in one single day.[57] NATO's goal is that its ground-based air defence capabilities provides a high end of firepower and are able to conduct multiple engagements simultaneously.[58]

**Passive air defence**

According to the NATO document *Generic Air Defence Capabilities*, passive air defence consists of all measures taken to reduce or diminish the effect of an adversary's air threats. It includes measures such as operational security, force protection, shrapnel protection, dispersion of units, and chemical, biological, radiological and nuclear defense.[59] Camouflage, concealment, and deception are also measures that can contribute significantly in reducing the effect of the means attacking the Alliance's air defence assets. Deception can quite simply be understood as hiding the real and showing the fake,[60] but it is also seen as both an art and a science.[61] First of all, this is true because it is difficult to obtain the desired effect especially related to multi-spectrum camouflage, but also because being creative can compensate for the lack of high-technology solutions.

To effectively employ or counter deception techniques, intelligence information is a very important precondition. Good and reliable intelligence information will provide the commander with information on the adversary's recently obtained or deployed military equipment such as

ground-based air defence units.[62]   This can come from imagery by satellites or reconnaissance aircraft. On the other hand, the adversary can also utilize the power of information to enhance the effect of deception – especially using our own reliance on media.[63] Direct access to both the internet and news media with pictures of destroyed fake military equipment will, in the public eye, greatly benefit the one being attacked.

Because dependence on intelligence information is crucial it is necessary to wait for the intelligence assessment process to be completed before information can be viewed as reliable. The opponent, on the other hand, does not need to do this. The enemy will gain more if the undigested information is spread to world media and to the internet as quickly as possible. In the on-going conflicts in both Iraq and Afghanistan, insurgents use open media sources to a great degree to support their campaign.

On September 4th 2009, ISAF bombed two fuel trucks in the Kunduz region in Afghanistan and several civilians were killed. Images of this were immediately spread all over the world, which caused the resignation of top military leaders and the defence minister of Germany to resign. The insurgents were, of course, well aware of this effect and used it in the same manner as the Serbians used the media to draw attention to failed NATO air strikes or  bombing mistakes made during Operation Allied Force.[64] Deception techniques were used extensively by the Serbians. They included mock-up anti-aircraft guns made of steel barrels with plastic covers, or decoy command post shelters with commercial microwave ovens running to simulate electronic emissions from military equipment. The Serbians also made fake anti-aircraft missile launchers of milk cartons, and used wooden vehicles to simulate trucks.[65]

There are several embarrassing examples from Operation Allied Force, where deception techniques reduced the effects of the Allied air campaign, or lured Allied forces to spend expensive munitions, such as attack missiles or smart bombs, on decoy objects.[66] The Serbians even used fires to simulate thermal images from combat vehicles, normally attractive military targets for NATO, and lured NATO aircraft into a ground-based air defence ambush.[67] But, one can also question the true effects of the Serbian deception techniques and tactics, as the Alliance was still able to strike the desired targets.[68] The effect was, in fact, greater when it came to protecting Serbian forces.[69] To some degree, the effect was enhanced due

to NATO's self-imposed restrictions related to the rules of engagement, and furthermore had NATO air assets directed to altitudes of 15,000 feet or above, leading to poorer images for battle damage assessment and maybe also the targeting process itself.[70]

Deployed ground-based air defence, active or not, will have an effect on planning and conducting an air campaign. In the Falklands War the Argentineans used civilian Learjets to lure British radars to pick up false targets. They also tried to lure the British to direct their combat air patrols towards the Learjets, before the aircraft turned back from a safe distance.[71] The Argentineans had some success with this strategy, and forced the British forces to launch their Harriers in response, thus increasing the British pilots' operational tempo and exhaustion.[72] To counter these tactics ground-based air defence systems need to reduce the emissions from the radar systems, this makes it more difficult for the attacker to use jamming techniques to hamper the radar detection, or to simulate multiple false targets on the radar screens. In modern ground-based air defence systems tactical data links provide early warning while the organic radar systems are in stand-down or silent mode.

Using drones as the Israelis did during the Arab-Israeli conflicts to lure the ground-based air defence units to activate their radars can be quite effective. First of all, the radar system suddenly becomes more vulnerable to jamming techniques, secondly scarce and expensive missiles are used against harmless targets. Once radar systems are re-activated, they are easier to locate and strike by systems designed to suppress or destroy ground-based air defence systems, such as anti-radiation missiles. To mitigate this, ground-based air defence operators should be well trained in countering jamming techniques, and modern equipment needs embedded features that are able to separate multiple false targets or radar returns from real targets.

In addition, today's ground-based air defence systems have both automated and operator assisted functions to support the operators when parrying these techniques. On the other hand, operators should also be skilful in using deception techniques themselves to protect their own equipment and crews. Shifting field-positions can also be decisive and furthermore using camouflage nets to hide the equipment or reduce the effect of thermal image.[73] Although ground-based air defence systems are

not viewed to be strategically mobile, they are quite tactically mobile, which will allow them to shift field-positions rather easily. Some short and medium range systems are even platform-integrated systems, meaning that one platform or vehicle carries the gun or missile launcher, the radar system and the command and control system. Such systems can reduce the time needed for re-deployment to another field-site. High altitude and long range systems, like the US Patriot system, are more resource demanding when it comes to relocating the unit to another field-position.

## The Baltic context-- threat perception in the Baltics

Even after several years in a relative peaceful neighborhood with Russia in the aftermath of the Cold War, Estonians still view the Big Brother in the East as a threat.[76] Whether the Estonians view the Russian State as a threat, or elements within the state as a threat, is also hard to say. Regardless of the perceptions, it seems that the majority of the Estonian citizens view the former occupying power as a threat and understand it as one.

Russian sources seem to wander through various views when it comes to their assessment of the NATO enlargement process taking place on their borders. In the beginning, it was assessed to be a threat,[77] and polls conducted by the Public Opinion Foundation some years back provided numbers that showed that the majority of Russians answered positive when asked whether they viewed the NATO enlargement process as a threat.[78] Yet, at the same time the Russian state seemed to move towards an attitude of co-operating with NATO.[79] Baltic membership in NATO could be understood as a necessity to fight the present obvious threats such as crime and international terrorism, that pose a problem for the regional security.[80]

According to Erik Noreen, the Estonian image of Russia might be more related to stereotyping the Russian image and that Estonia's wish to join NATO was based upon "lessons learned from history."[81] Erik Noreen argues that the more a state strives to create a common identity, the more likely it is that external groups are viewed as threats in what he refers to as the *in-group* and the *out-group*.[82] He also says that although the threat from a former occupant is historically based, rather than on more recent events, it nevertheless drove Estonia's interest in membership in the NATO

alliance.[83] Moreover, one can say that Estonia's wish to join NATO was not only based upon perceived Russian threat, but rather stemmed from a deep desire to re-establish its ties with western political culture.[84] NATO membership provided Estonia and the other Baltic States with a voice in an international organization on different international issues, as well as providing a deterrent to aggression and better protection.[85] Furthermore, Vladimir Putin's softened critique towards NATO and the enlargement process suggested that Russia no longer depicted NATO and NATO membership of the Baltic States as a threat.[86] Putin even responded on one occasion, "Yes. Why not?" when asked whether Russia could consider the possibility of joining NATO.[87]

On the other hand, Russian President Medvedev's five principles for the country's foreign policy say something else. In the five principles Medvedev lays out the Russian view on the world order, stating that uni-polarity is unacceptable and makes the world unstable.[88] This critical voice is clearly directed towards USA's dominant role, and America's role in determining world policy.[89] Regarding the enlargement of NATO, Russian Foreign Minister Sergei Lavrov has said, "*There is a feeling that NATO again needs frontline states to justify its existence.*"[90] This might indicate that the current talks in NATO corridors to include former Soviet states such as the Ukraine and Georgia is not welcomed by the Russian leadership. Furthermore, if we examine the new and recently approved Russian defence doctrine (2010), Russia restates the view that the enlargement of NATO is the main external threat to Russia.[91]

Russian doctrine also says that Russia is willing to protect its citizens and interests abroad and sees nothing wrong in this, defending this statement by saying that France and US have taken the same positions.[92] The new defence doctrine confirms the old anti-NATO trend in Russia. In addition the doctrine says that Russia will continue to develop and modernize its nuclear capabilities; consisting of land-based ballistic missiles, nuclear powered submarines, strategic bombers and nuclear capable cruise missiles, and will also increase Russia's ability to be superior to the missile defence of any potential enemy.[93]

According to the military commentator in Ria Novosti during the NATO bombing campaign against former Yugoslavia in 1999, Russia conducted war games simulating a military conflict with NATO. The results of these

war games supposedly showed that only nuclear weapons could provide the necessary defence capabilities against military aggression from the West.[94] This tells us that Russia depicted this scenario as relevant enough to do war gaming in order to evaluate their ability to defend Russia against an attack from the West. Moreover, the Russian reemphasis of the NATO enlargement as a threat, and Russian intentions to re-emerge as regional power, must be taken seriously by the small and weakly defended Baltic States. Still, one must expect NATO to defend the Baltic States as Alliance members if necessary. Nevertheless, a clear statement from NATO confirming this would most likely be welcomed by the Baltic States. On the other hand, Russia recently decided to join NATO to create a missile defence shield in Europe, assessed to a very important step towards a better co-operation between NATO and Russia.[95]

## Air threat

Since the first pioneers of air power predicted its decisive application, many military theorists and historians have discussed the true effect air power has on the outcome of a conflict. Nevertheless, air power can play a significant role as a coercive instrument, and is assessed to do so also in the future.[96] Coercion is defined as the use of force to persuade or influence an adversary, in order to change its behavior.[97] Some say that the use of military force not always work as intended,[98] for the use of air power there are several examples supporting this thought, for instance, the massive bombing of Nazi Germany in the Second World War and U.S air attacks against the North Vietnamese in the nineteen-sixties. Both failed to turn the population against their leadership.

Nevertheless, a nation's investments in offensive air capabilities can be understood as a rational decision to use air power for deterrence or to compel an opponent to abstain from the use of military force. If we assess the Georgian-Russian conflict in 2008, Russian air power was used in a traditional manner intended to force Georgia to stop fighting.[99] The Russians also used air power to protect their own lines of communication, making sure that their deployment was not in danger.[100] Furthermore, they used air power to strike Georgian military infrastructure; targeting Georgian bases and facilities, neutralizing their air defence, and also striking the Sukhoi aviation plant.[101] It is questionable whether the main intention was to protect their fellow Russian citizens in the outbreak

regions, or disrupt the Georgian military build-up in striving to seek NATO membership. According to Dr. George Friedman, chief executive officer of STRATFOR Global Intelligence, the main objective for the Russians to intervene in Georgia was to re-emerge as a regional power.[102]

In the Russian geo-political strategy it is important for them to increase their influence in the former Soviet republics in order to build a much needed buffer between Russia and NATO after NATO's enlargement process eastwards.[103] Although the US had several military and civilian advisors in Georgia, Russia did not expect active military assistance from US to Georgia. Being heavily committed in Iraq and Afghanistan, the US was neither able nor willing to shift its focus towards the South Caucasus.[104] Moreover, Russian leadership believes the Middle East is more important for the US than the South Caucasus, and that priority might allow the Russians to continue to influence the Caucasus region at the expense of US or Western influence.[105] It seems important for Russia to uphold its position as a power to be reckoned with.

Moving to the Baltic region, where the NATO border is made by the borders of Estonia, Latvia and Lithuania, one may understand why these countries neighbouring to Russia fear a threat similar to Georgia's. Unlike Georgia, these three countries are all members of the EU and the NATO alliance, providing an important deterrence capability in the Baltic Region. Nevertheless, the Baltic States cannot rule out the possibility that Russia wants to increase its influence in their region as well. A military build-up in the Baltic States to improve the territorial defence might not provide the desired power balance. It could trigger Russia to increase its military presence in the region. Although it seems unlikely that Russia would engage in a head-to-head conflict with NATO, it is evident that Russia wants to show some strength in the neighbourhood in order to be respected – if not as a global power at least as a regional power. This may cause an unstable and a less secure region. A clear defensive posture for the Baltic States could reduce this effect.

If we investigate how air power might be used for coercion, John Warden's five rings model, based upon the concept he introduced in "The Air Campaign,"[106] provides a good insight.

Warden's model provides an indirect approach to defeating the enemy, with leadership as the inner ring, followed by key production or essential systems, important infrastructure, the population, and finally the military as the outer ring.[108] Warden, unlike the Italian air power theorist Guilio Douhet, did not accept direct attacks on the population. The five rings model can provide an approach to "attack" the population indirectly by causing chaos and uproar against the leadership. According to John Warden, air power is more able to create this chaos or, "*strategic paralysis*," as he and John Boyd called it.[109]
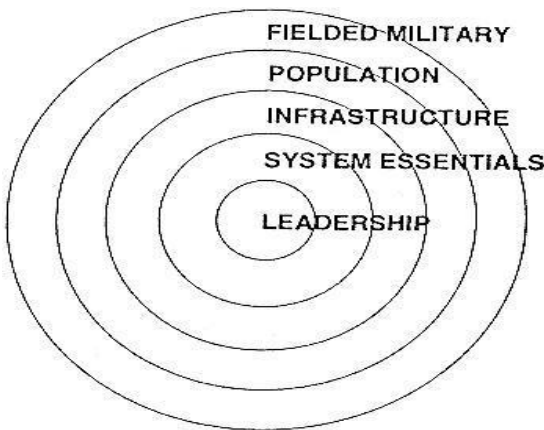


**Fig 3.** The systems model[107]

Some are questioning the true effect that air power has on the outcome as coercive power - the psychological effect. These critical voices say that air power is merely targeting,[110] meaning that air power assets are more or less advanced airborne fire support that focus more on target-to-outcome than the long-term coercive effect.[111] Coercion is seen as a process carried out over time and dependent upon airpower's ability to apply massive force – so restraints are needed. If and when too many restraints are imposed it means that the political will to use air power towards decisive targets is not there. The coercive effect of air power becomes less, and this failure of coercion may reduce the credibility of the nation.[112]

Going back to the new Russian defence doctrine, the reaffirmed strategic ambitions of Russia and its intentions to protect Russian citizens abroad

can be understood as a Russian intent to show the Western world and neighbouring countries Russia's will to use strategic capabilities as a coercive tool if necessary. In the previously mentioned Russian-Georgian conflict in August 2008, Russia demonstrated the application of massive force and very quickly established air superiority, which somewhat surprised international society.[113]

In this conflict, air power was used in a traditional manner directed to cripple the Georgian military.[114] Although Russian airpower showed some deficiencies and lacked tactical reconnaissance assets, it showed what Russia is capable of when it comes to power projection.[115] In Georgia we still see air power being used in a traditional manner, as during the Cold War, when the air threat consisted of standard fighter and bomber aircraft emerging in a massive formation – and from a known threat direction. During the Cold War, the ground-based air defence systems were deployed into prepared field positions, often with preplanned primary target lines. Yet today we also see the air threat appearing in a wider range of categories, from traditional air breathing threats - such as aircraft, helicopters, unmanned aerial vehicles and cruise missiles - to even more challenging threats such as rockets, artillery and mortars, and theatre ballistic missiles.

The theatre ballistic missiles are the most resource demanding threat, and only a few nations have successfully fielded systems able to counter this threat, such as the U.S.-developed Patriot system. Despite this, a modern ground-based air defence system can provide a very good first line of defence, against both traditional and modern air threats. A continuous development of the allied joint air defence capability is a prioritized area for NATO.[116] While rockets, artillery and mortars are the most challenging threats due to their characteristics, the theatre ballistic missile is clearly the most expensive threat to counter.

## The current plans within the Baltic States

The Estonians, according to their Long Term Defence Development Plan of 2009-2018 – also known as 'Plan 2018' - intend to significantly improve their ground-based air defense.[117] The plan states that the current short range air defence capability is sufficient only to protect a specific object, and that a deployable medium range system is needed with the capacity to

destroy targets out to 30 km. This would also provide Estonia with an ability to protect larger cities by establishing an area defense.[118]

Latvia underlines the importance of the ability to defend the national air space in case of threat to the nation in addition to the protection of their armed forces.[119] Furthermore, Latvia points out that information superiority over an adversary is important in this perspective.[120] In their own assessment, Latvia's membership in NATO and the EU has significantly improved their security. Nevertheless, changing international circumstances or regional developments might pose an increasing risk to Latvian security.[121] Moreover, Latvian combat capabilities cannot use too many personnel due to their relatively small armed forces.[122]

Lithuania also plans to improve its ground-based air defence, both in the army and in the air force. Army units will have air defence companies in addition to the air defence battalion in the Air Force.[123] Furthermore, they plan to improve their Swedish built RBS-70 air defence system, and in addition they plan to procure Stinger short range air defence systems for the Army.[124] Improving the air defence is clearly a high priority, for both the army and the air force, in the Baltic States.

Currently the Baltic States only possess short range air defence systems, which only provide static point defence or some degree of protection for the land forces. In order to provide protection of vital civil or military infrastructure, to defend the region's airspace, or to contribute to the defence of alliance airspace, short range air defence systems are not sufficient.[125] The systems should be able to provide a multi-spectrum defence that counters all air threats to include fixed and rotary wing aircraft, unmanned aerial vehicles, cruise missiles, theatre ballistic missiles and rockets, artillery and mortars. At least they should provide solid defence against traditional air breathing threats.

Some ground-based air defence systems already have the capability to defend against rockets, artillery and mortar, but only a few nations have fielded such systems. One example of this is the US built Phalanx gun-system originally developed as a close-in weapon system for ship-based air defence, but now also available in a ground-based air defence version.

The ground-based version was deployed to Iraq for base protection. In the last few years we have seen an increase in national use of ground-

based air defence in military operations other than war, such as in enforcing No-Fly Zones during sporting events like the Olympics, the European Football Cup, or important political events such as World Economic Forum, the Nobel Peace Prize ceremony in Oslo,[126] or the inauguration of the President of the U.S.[127] From being viewed as a capacity that is solely related to war by defending military air bases, ground-based air defence has widened its relevance to include protection of high value civilian objects in peacetime, or even high profile individuals. In Lithuania improved ground-based air defence was assessed to be an important factor for the protection of their nuclear power plant in Ignalina.[128] Although the power plant has now been closed down, the experience still demonstrates that critical national infrastructure needs to be well protected. Small nations should address this issue in a whole-of-government approach, ensuring a seamless integration of all available resources.[129]

Switzerland, another small nation, successfully established a thorough ground-based air defence network to protect the annual World Economic Forum with a No-Fly Zone over Davos.[130] The use of ground-based air defence in the event of an attack during the Forum was integrated into the political decision making process – with the top leadership as the authorized power.[131] The Baltic States must also have the ability to protect their own critical infrastructure and high profile individuals during international events, which may draw unwanted attention to the region from threatening elements. As relatively new members of international forums, the three Baltic States might want to increase the international interest in their regional issues. The Baltic Development Forum even called their own 2010 Summit as "*a true regional Davos gathering in 2010*".[132] This statement clearly says what ambitions they had for their event.

### The challenges facing smaller air forces

According to Dr. Sanu Kainikara, a former Indian Air Force pilot and now an air power strategist, air forces might be divided into three different categories; niche air forces, smaller air forces, and large air forces.[133] Niche air forces are the ones that do not have the width of air power capabilities and are only able to provide a few functions or roles, and with a few assets. Large air forces possess the full spectrum of air power capabilities and are able to project air power in a wide degree, and

furthermore have considerable industrial power and technological infrastructure behind them to drive development, all supporting the nation's air power capability in a broad sense. In Dr. Kainikara's view, the US Air Force is classified as the sole power possessing an air force rated as above a large air force.[134] Smaller air forces, on the other hand, have the full spectrum of air power capabilities and may project air power independently. They have many systems, but do not have the ability to project air power over time.[135] This means that they are able to provide air power with different functions and roles, but only with a limited capability. They lack sufficient sustainability and do not have the large industrial infrastructure. These air forces, or nations, are assessed by Dr. Kainikara as, "*capable alliance or coalition partners.*"[136] In the case of the Baltic States it seems unlikely that they will evolve from their current status as niche air forces, and will likely only offer a few air defence roles to either NATO or the EU for regional security.

It is important to understand that when nations are categorized as niche air forces, their air forces will not play a significant role in the nation's strategic security issues.[137] But this does not mean that their air power assets are not relevant. Certainly a niche air force is better than no air force at all. If the Baltic States decide to focus primarily on ground-based air defence as their main air force asset, it will provide an acceptable degree of defence and will protect high priority areas or assets quite well. As alliance partners, the Baltic States can rely on the principle of collective defence – but this also requires improving their own defence capabilities. Both in NATO and among the Baltic States, ground-based air defence is a prioritized area for development. Improved ground-based air defence in the Baltic States will provide an excellent niche capability for regional defence under the NATO Air Defence umbrella, and protect NATO fighters in the Baltic Air Policing Mission.

## The European defence equipment market

In the European defence equipment market today there are several challenges that need to be given a greater focus in order to enhance the basis for co-operative solutions. First and foremost, the six big defence equipment producing countries - France, Germany, Italy, Spain, Sweden and the UK[139] - should seek to reduce the current competition among them. This will furthermore abolish the existing system of protectionism

of national defence industries. One example of this is the three different fighter programs in Europe today; the French Rafale, the Swedish Gripen, and the joint Eurofighter.[140] Although competition is regarded as favorable to countries seeking new and modern defence equipment – as it provides lower cost and better products – in this case reduced competition might help European governments share the cost in developing and procuring complex and expensive defence equipment.[141] A consolidated European defence equipment market could establish a more competitive European market against a dominant USA, rather than upholding the existing competition among the European defence equipment producers. According to the European Union's Institute for Security Studies, a major obstacle to better co-operation in the European defence equipment market is the current work-share arrangements/offsets, or the so-called *Juste Retour*.[142]

Several European governments require offsets close to the equal amount of the investment in defence equipment returned to own industry – known as direct offsets. With in-country support – and indirect offsets – these offsets might even exceed the amount of the procurement.[143] With the current non-consolidated European defence equipment market and the fact that quite many procurement programs have some degree of multilateral co-operation (contractors and sub-contractors), a system of *Juste Retour* or offsets might make the procurement programs even more complex.[144] In the US there were some critical voices concerning the possible impact of offsets to the US industrial base and fear that an overseas system of offsets or *Juste Retour* might take jobs away from the US industry.[145] The case regarding offsets is, of course, more related to the producer countries than the consumer countries. This is mainly because consumer countries have no significant defence industry involved.[146]

Small nations with a limited defence industry and tight defence budgets should concentrate their investments in (military) off-the-shelf equipment – and not participate in complex and expensive development programs.[147] Nevertheless, both producer and consumer countries have a great interest in cooperative programs – and for the consumer countries especially related to the R&D activities in order to establish common operational requirements for the procurement itself.[148]

The three Baltic States can concentrate their joint efforts towards this objective by creating common operational requirements as a solid base for a joint investment program. The European Defence Agency promotes joint investment programs, especially within the R&D segment.[149] Even though the three Baltic States might decide to acquire the desired ground-based air defence capabilities together, it does not mean that they must operate their systems together. With respect to the many political obstacles they might encounter regarding military co-operation on ground-based air defence, creating common operational requirements and procuring together in order to reduce the procurement cost is an excellent opportunity to develop more formal operational cross-border partnerships at a later date. For some countries, a co-operative program in non-operational areas – such as procurement, training, exercises, education, doctrinal work etc. – is a viable option as well.

## Challenges in defence spending

For many European countries acquiring the military capabilities the desire can be difficult, especially when the politicians struggle to balance national budgets. According to Brigadier General Lawrence P. Farrell, Jr. USAF, this is nothing new and is natural part of the democratic process where the defence sector competes with the other segments of the society for necessary funding.[158] One example used by General Farrell was the difference in defence spending between the democratic US and the dictatorship in Iraq in the decade before the first Gulf War. While America had an all-time low of 6.3 % of GNP for defence, Iraq spent 33 %.[159] Several European countries also struggle with the cost of social welfare budgets and immigration issues. According to the European Parliament, defence spending in Europe has fallen significantly.[160]

Modern democratic countries cannot disregard their current challenges in social and welfare care, but they must find a certain balance amongst the different segments of the national budget. With the recent financial crisis in mind, the ramifications of the crisis might foster even more multilateral defence co-operations in Europe.[161] This means that, on the defence side, European countries should seek to spend their money in a more cost-effective way. Whether they will spend less money is hard to say, but the obvious goal should be to spend it more wisely.[162]

In NATO there has been a transformation in this segment as well, where NATO has moved from pooling infrastructure to pooling capabilities.[163] The system started with the main focus on establishing airfields. This evolved into a need for a complex network of fuel pipeline system, communication network and air defence – combined into force packages.[164] Some of the costly infrastructure programs have been shown to be of little relevance, mainly because these programs are time consuming and, when finally operational, the needs or overarching requirements will likely have changed.[165] One example of this are the many missile sites that were built in several of the Alliance member states, or the new NATO Air Command and Control System – a program that has been running for almost ten years and still not operational. When operational, it is likely that the member states will need to support their different legacy systems – mainly because the new command and control system will not be able to provide the member states with all applications needed.[166]
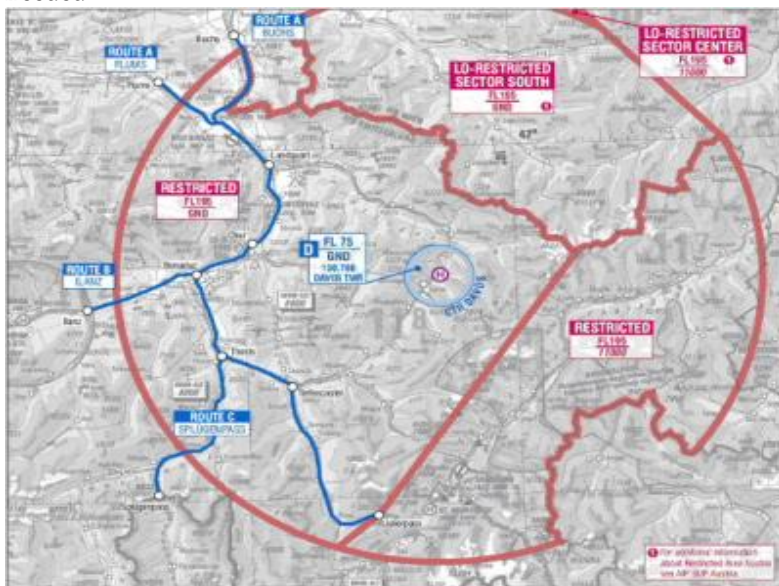


**Figure 3.1.** The established No-Fly Zone over Davos and surrounding area.[170]

Lt. Col Dave Orr USAF argued for more European capability pooling in *Air & Space Power Journal* in 2003.[167] Orr argued that pooling capabilities

could increase the ability to deploy, operate and sustain the mission. One example he used was the former BENELUX (Belgium, The Netherlands and Luxembourg) Deployable Air Task Force, which was based on F-16 fighter jets from Belgium and the Netherlands, with force protection provided by Luxembourg.[168] In the same article, Dave Orr also indicated that pooling capabilities even might provide more stability in offering defence capabilities, by increased national pride in their newly established defence co-operation.[169]

In defence issues, one can question whether small nations are able to defend themselves from air attacks, or whether they should seek to jointly establish co-operative solutions as Switzerland and Austria has done during the annual World Economic Forum in Davos.

During the Forum in 2009, the two countries co-operated mainly due to the close proximity to the Austrian border and that the restrictions imposed by the Swiss authorities, also influenced the neighbouring country. Swiss Air Force fighter jets and ground-based sensors provided the necessary security, and Air Force transport assets were used to support the Forum and their guests.[171] Switzerland, traditionally a neutral country, emphasizes the need for co-operational solutions because "security knows no borders".[172]

## Co-operative solutions

Currently there is no commonly accepted definition of the different kinds of sharing or pooling of military capabilities. However, in a study requested by the European Parliament's Subcommittee on Security and Defence on how the EU can pool their capabilities to meet the ambitions of the ESDP, the authors provide a useful categorization of this issue with four different options:

   a) Sharing capabilities: Here member states create common capabilities by providing national assets for collective use. No formal structure to organize the capabilities exists, and the member states in question simply put their assets together for a relevant military operation or in a case of crisis management.
   b) Pooling capabilities, in this case where the member states organize their assets on a collective basis, requires a more formal structure. Examples given in the study are the European Airlift

Centre and the Sealift Coordination Centre. The member states will retain their national control over the necessary assets or capabilities, and will decide whether to participate in a military operation or not.

c) Pooling through acquisition: This is done by the creation of a multilateral or multinational organization that owns the assets. The NATO AWACS program is one example of this and the 14 countries participating in the Heavy Airlift Wing that operate four C-17 transport aircraft, based in Papa, Hungary, is another. The primary issue is that some participating countries might reserve for themselves participating in some operations due to national political issues. Furthermore, lack of funds might force one or more nations to pull out, leaving the remaining participants to pick up the bill.

d) Role sharing: Some countries might be forced to relinquish some military assets, either due to financial or force structure limitations. This requires relying on other nations to provide these assets when needed. Providing niche capabilities like hospital aircraft, CBRN assets, bridge layers, deployable operating airbases etc., are examples of role sharing. Another example is what the study refers to as "rare and costly capability" where extremely expensive military equipment is impossible or difficult to share. An aircraft carrier is one such piece of equipment, simply because member states with this capability operate different kinds of aircraft and a joint solution might prove difficult to put in practice.[173]

One example of existing military co-operation in Europe that does not fall into any of the options mentioned above is the European Participating Air Forces (EPAF) with its European Expeditionary Air Wing (EEAW). This so-called "framework co-operation"[174] is a spin-off from the Multinational Fighter Program,[175] where Belgium, Denmark, Netherlands, Norway, and Portugal work with the US in order to maintain and sustain their national fighter-fleet. In EPAF/EEAW these small nation air forces are pooled together with the main objective to provide a more sustainable fighter force for international operations. A memorandum of understanding, signed by all nations, lays out the terms for the co-operation.

An important caveat is that national sovereignty is to be maintained, meaning that the responsibility to decide whether to deploy or not lies with national authorities. The same issue relates to rules of engagement, namely, how the application of military force should be carried out. Currently the five nations are working to sort out several other minor caveats to improve co-operation. Norway, as one of the participating nations, views such co-operation as highly beneficial and is seeking similar co-operation within the Joint User Group for Norway's newly acquired C-130J Hercules transport aircraft. This co-operation was initiated with the aim to co-ordinate user nations work with Lockheed Martin, but it has now been extended to include more operational areas as well.[176]

For the three Baltic States, as small nations with limited defence budgets, there are few other options than to co-operate on defence issues. Given their significant experience in co-operative programs mentioned earlier, they have learned lessons that could prove useful for future co-operative programs.   Taking the different solutions provided by the earlier mentioned study requested by the European Parliament, pooling the future ground-based air defence capability in the Baltic States will face some important challenges that needs to be addressed:

a)  Objective: What is the capability expected to provide to the co-operating nations?
b)  Scope: What is encompassed in the co-operative program and what will remain as a national responsibility?
c)  Time frame: What is the time frame of the program?
d)  Political willingness: When entering a cooperative program like acquiring defence capabilities together, it is necessary for the participating nations to sustain in the program in order to complete the acquisition.
e)  Budgetary issues: Participating nations must ensure that the agreed shared cost is adhered to and annual defence spending provides the program with necessary funds.
f)  Interoperability: In this perspective, technical interoperability is not the main issue, but rather the operational domain where the systems can work together in order to use the pooled assets in an optimized manner
g)  Level of ambition: The co-operating partners must agree on a feasible level of ambition correlated with their available resources

h) Commitment: All parties must commit themselves to the program as deemed necessary in time, cost and scope.

## The Nordic Approach

Nordic co-operation is a long standing and well developed formal co-operation program among the Nordic countries (Denmark, Finland, Iceland, Norway and Sweden) and the autonomous areas of Greenland, the Faeroe Island and Aaland. It was initiated after the Second World War and formalized in 1952, and the Helsinki Treaty was signed ten years later.

### *Areas of co-operation*

Nordic co-operation covers a wide range of areas, such as:
a) Culture, leisure and media
b) Economy, business and working life
c) Education and research
d) Environment and nature
e) Legislation and justice
f) Welfare and Gender Equality
g) The Nordic Region and the Surrounding World

In the perspective of this article it is the last point that is the most interesting as this area entails defence and security issues.[177] Although there is currently no formal co-operation in defence among these countries, they have co-operated on some areas in the defence sector. One example of this is the Nordic Battle Group – with Sweden as a leading nation – which was formed together with Estonia and Ireland in order to provide capabilities to the European Union.[178] A wider degree of defence co-operation among the Nordic countries, such as common deployable capabilities or a mutually binding defence solidarity clause, is more difficult to achieve. The Nordic countries have different approaches to security solutions, and do not share the same global or regional memberships. One interesting example of this is Denmark, being a member of the EU, decided to opt-out of the European Security and Defence Policy.[179]

Although the Danish official position is to lift this opt-out as soon as possible,[180] it does seem likely that some Danish voices fear a new super-state being formed by the increasing integration in Europe – despite the

fact that polls conducted in 2005 and 2006 showed a growing degree of public support for greater European defence co-operation.[181] The idea of national identity often represents the main obstacle for supporting greater integration in Europe.[182] This idea is also the main argument brought forward by those against a possible EU membership for Norway, fearing that a new super-state will reduce the national sovereignty.[183]

For the Baltic States, on the other hand, all three states are members of both NATO and the European Union, and they all share a common interest in gaining more influence in the regional security sphere. Furthermore, they all share the same view regarding the balance between maintaining the US presence and influence in Europe and the further development of European security and defence policy in complementing the security provided by their NATO membership.[184] Certainly an advantageous strategic basis for developing future military cross-border partnership, and establishing the common doctrinal format the partnership should have.[185]

## A Nordic musketeer oath

*"I suggested that the Nordic governments formulate a declaration of Nordic solidarity. This would be a declaration of political will, stating that we are prepared to assist each other in times of crisis."[186]*

Mr. Thorvald Stoltenberg[187]

To move from today's broad co-operation amongst the Nordic countries to a possible extension to a formally declared *musketeer oath* is controversial. Mr. Stoltenberg's argument is that such an oath would move the current cross-border co-operation to a more formal stage, ensuring that the different military capabilities will be made available for collective efforts in either crisis management or pure military operations. Nevertheless, he stresses that a Nordic solidarity declaration must not be in conflict with the existing commitments for the Nordic countries, either as NATO or EU member states.[188] Furthermore, he advocates that with a solidarity declaration the Nordic countries will be more committed to actually fulfil their obligations and to make these assets available for NATO and the EU.[189]

In the Nordic Council's publication "One for all, all for one – New Nordic defence policy," Mr. Stoltenberg's proposed declaration is contested by former top diplomats and ministers from the Nordic countries. They understand his main point, but think that it will be problematic to put into practice given the sovereignty of the Nordic governments and that the new Nordic Defence Policy does not provide anything new compared to existing collective commitments within NATO and the EU. Uffe Ellemann-Jensen, a former Danish foreign minister, even said that it was not necessary to declare because it is self-evident that the Nordic countries will assist each other.[190] Furthermore, he outlines the fact that the idea of a mini-NATO in the North never came to life in the aftermath of the Second World War.[191]

During a speech at the Military Society in Oslo, the Norwegian Minister of Defence said that a Nordic solidarity declaration is not an option at the moment, but underlined the fact that being brought to attention means that this is something that should be investigated further.[192] Mrs. Elisabeth Rehn, former Finnish defence minister, supports the idea presented by Mr. Stoltenberg, saying that it is likely that new alliances or military co-operations might replace NATO.[193] This view also is supported by the former Norwegian chief of Defence, General (ret) Sverre Diesen.[194]  For the Baltic States it is not likely that they will seek a regional military alliance outside NATO – but have a great interest in a stronger focus on their regional security issues within both NATO and the EU.[195] Nevertheless, increasing their cross-border partnership by co-operating in new military capabilities should be considered.

## The Baltic window of opportunity

*"We need to help these countries develop sophisticated air defence and anti-tank capabilities that don't pose any offensive threat to Russia, but promise the possibility of very high casualties were they to attempt what they did in Georgia"*

Frederick W. Kagan[196]

### Military co-operation in the Baltic

Since regaining their independence in the early 1990s, the three Baltic States have gained considerable in defence co-operation with all three services: land-, maritime- and air forces: BALTNET – The Baltic Air Surveillance Network came together as a result of NATO's need to

integrate the three countries' airspace into their Air Defence Ground Environment. Norway had a leading role in the program and donated radars to Estonia and Latvia, and provided operational and technical support in order to ensure a successful program end-state.

    a) BALTDEFCOL – Established in 1998-1999 the Baltic Defence College, with extensive support from several EU and NATO countries, provided the Baltic countries with an institution for educating military officers and civil servants in the process of their transformation towards Western standards and creating a common standard amongst the Baltic States' military headquarters and staffs.[197] In the larger perspective, this is somewhat similar to the scope of the European Security and Defence College established in 2005.[198]

    b) BALTRON – The Baltic maritime defence co-operation that still provides NATO in general and the region in particular, with a standing mine-counter capability. In this program Denmark played a key role.

    c) BALTBAT – The high readiness Baltic Battalion was made available for NATO rapid reaction system. Denmark played a leading role in this program also. The Baltic Battalion project was the first military co-operation in the Baltic and was started as early as 1994.[199.]

As introduced earlier in this paper, all three Baltic States plans to improve their ground-based air defence capability significantly. By doing so, they are facing an interesting opportunity for cross-border partnership in ground-based air defence. For the three Baltic States it is important to come together and discuss what the common objectives for new a cross-border partnership in ground-based air defence could look like.

## Alternative approaches to future co-operation

Taking into consideration the different kinds of co-operative solutions mentioned, it is necessary to decide which approach to take. One option is to procure the same ground-based air defence system – a joint investment program, while another option is to seek a solution where they establish a ground-based air defence network comprised of two or three systems with slightly different but complementary attributes into a system-of -systems. An approach where country A procures a missile system with medium to

long range and B procures a system with shorter range - for instance a twin-gun system - with better effectiveness towards air threats with lower radar signature such as artillery and rockets. Country C could provide force protection for the systems, as Luxembourg did in the BENELUX Deployable Air Task Force.[200] This solution was also considered in the European Expeditionary Air Wing when deploying fighter aircraft abroad under their "framework co-operation" concept.

Another approach in a ground-based air defence co-operation is by joining activities in the areas of procurement plans, maintenance, support, training and education, military exercises, and doctrinal work, in order to improve interoperability in the ground-based air defence systems among the three nations. Furthermore, coordinating the force generation in ground-based air defence is necessary. Improved interoperability was also the main objective when the seven nations' air force co-operation, called European Air Group, was established.[201]

Going back 15 to 20 years when the military co-operation in the Baltic States was initiated, the circumstances framing the need for co-operation were somewhat similar compared with today's situation. All three states had financial constraints regarding defence funding, and they shared a strong desire to re-connect with the Western World, shared the same security domain and threat perception, and they wanted to contribute to both collective defence and obligations elsewhere. Most of the circumstances still apply – like the financial constraints and the fact that the Baltic States are still under pressure from Russia.

In the Cold War era Europe was faced with a clear military threat, today the picture is not that clear. Now European countries are challenged with a mixture of military and non-military threats. The non-military threats may be the most prominent, such as organized crime, terrorism, the proliferation of weapons of mass destruction and illegal immigration. Although the threats might look different and more unclear, the traditional military threats need attention too. The Baltic States still need to focus on the geopolitical issues in the Baltic States, in NATO, and in the EU.  The major difference is that in the mid-1990s there was "a lack of practically everything", as Vitalijus Vaiksnoras puts it in his paper from 2000-2002.[202] Today all three states have great experience in military co-operation. They are fully integrated into the Western World; they have well-established armed forces with reasonably modern equipment and

skilled personnel, and common education of their senior staff officers and civil servants under the remit of the Baltic Defence College in Estonia. Moreover, they have correlating strategic defence concepts with common objectives.

Although, before one argues for new cross-border partnership in the Baltic States, previous experience and lessons learned should be revisited. From their past experience they should be better prepared when, and if, they enter future co-operative solutions in the defence segment.

## Prospects of ground-based air defence co-operation in the Baltic

What are then the prospects for future co-operation in the Baltic in ground-based air defence? There are several strengths related to this. Defence co-operation in general will certainly improve the national defence capabilities of the three Baltic States – as it did during the 1990s and in early 2000. Co-operation in ground-based air defence will provide the Baltic States with a better ability to defend their national and regional airspace. Although one must recognize the limitations that exist with ground-based air defence as compared to traditional air defence fighter aircraft. Nevertheless, acquiring and sustaining a fighter fleet within the Baltic States – even with small number, seems unrealistic given the financial limitations of the three Baltic States.

Still, with the experience gained in the Baltic States within the realm of defence co-operation, ensures they are better prepared to initiate and manage new areas of co-operation and on their own terms with less external involvement than previous activities. The defence white papers from the three states highlight the same major objectives and underline the importance of continued cross-border partnership in the Baltic. Extending their military co-operation will prevent the Baltic States from going separate ways, as was the case of the EU Battle Groups.[203] Instead of going separate ways, they could have worked together by forming one battalion-size unit rather than splitting up between the Nordic Battle Group (Estonia) and another led by Germany (Latvia and Lithuania).[204] With their scarce defence resources both financially and structurally, pooling their assets will help the Baltic generate the required capabilities and sustain them over time.[205] Keeping the military co-operation mainly within the Baltic States will also assist the Baltic governments to better manage the risks involved in co-operation. Programs or activities that are

more complex and involve more countries will make it difficult for small states like the Baltic States to manage risk.[206]

On the other hand, the most pressing weakness concerning a possible extension of their military cross-border partnership is the financial situation. Their limited resources might impose restrictions on new areas of co-operation. Furthermore, procurement programs or co-operation activities that run over a longer time frame may encounter lack of commitment and end up being more symbolic than practical. It is important that the level of ambition amongst the three states is in accordance with their resources. If the ambitions are overestimated, the program might lose the required commitment and furthermore face less credibility with their partners.

The opportunities present for the Baltic States are first and foremost the fact that all three states plan to improve their ground-based air defence. Furthermore, with the very limited defence budgets in the Baltic States seeking a co-operative solution, if so only for the procurement itself, is advantageous. While the three Baltic States should persuade NATO to sustain their Baltic Air Policing mission beyond 2018, an improved ground-based air defence capability, one interoperable with both system-to-system and with the Baltic Air Surveillance Network, will also provide better protection for the deployed NATO aircraft, thus supporting the three states in convincing NATO that this is the right approach. The three Baltic States aim to win more attraction to the geopolitical issues in their region within both NATO and the EU, than they might be met by maintaining NATO's Air Policing mission in the Baltic.

The threatening factors that might endanger a cross-border partnership in ground-based air defence include a negative reaction from Russia, even though such a system would be purely defensive. It would still likely be viewed as a significant defence build-up. [207] This was the case when the US planned to establish a strategic missile defence shield in Europe – with missile or radar sites close to the Russian border – and Russia argued that such an action could start, "a new arms race between East and West".[208] For the Baltic States, as in the Nordic countries, a balance between their relationship to Russia and, first of all to NATO and the EU, must be sought. Furthermore, a new defence co-operation arrangement might consume too many resources, personnel and funds, and put even more

restraints on other parts of their military force structure. It might even affect other military obligations such as the EU Battle Group or NATO Response Force. This was one of the main criticisms of the Baltic Battalion project (BALTBAT).[209] Therefore, it is important that the scope of a co-operation is in line with the resources available (including planned resources for future co-operation) and other existing or planned obligations. With scarce defence resources – both in terms of funds and troops – a Baltic fighter fleet seems less realistic than a ground-based air defence capability. Whether the Baltic States should pool their ground-based air defence assets operationally, or limit the co-operation to non-operational areas, must be investigated. Nevertheless, they need to combine their activities also in the future ensuring that their resources are spent in a more cost-effective manner.

## Conclusion

The purpose of this article has been to argue that ground-based air defence is a viable solution for national or homeland defence – and for small nations as alliance partners to pool assets in order to contribute to the protection of regional and alliance airspace.  The historical examples used in this article show that ground-based air defence has played an important role in defending the airspace against air attacks, either directly or indirectly - and even more so in improving security when under the threat of coercion by air power. Doing this-- forcing the opponent to redirect its air assets to safer areas-- leads to a less accurate projection of enemy air power, or forces an opponent to fly around the threat.

Ground-based air defence systems are high value assets in air defence, and need to be protected from land attacks. As with any other land-based defence system, ground-based air defence systems are vulnerable to attack. Furthermore, the weapon systems operators need to be skilful in countering suppression techniques to maintain the survivability of their systems. Modern ground-based air defence equipment provides a nation with a potent defence solution – one able to counter advanced air power capabilities. The current plan within the Baltic States to significantly improve their ground-based air defence is the correct approach for small nations. As small nations, it is difficult to acquire an expensive and resource demanding fighter fleet. The three Baltic States all see the importance of acquiring capabilities that are not too demanding of

personnel resources. As discussed in this article, smaller nations with so-called niche air forces do not have the capacity to provide a wide range of air power capabilities. Thus, small nations need to concentrate their effort within a specific area.

The importance of air defence in NATO has been presented and historical examples explain how ground-based air defence can provide a defence line against air power. Integrated air defence is the best solution in order to provide a good defence that has the ability to inflict significant damage to the attacking force. Even less modern and sophisticated systems have been effective in some recent conflicts. Nevertheless, advanced ground-based air defence systems with the ability to handle multiple engagements simultaneously will provide the Baltic States with the needed capability. When the air threat and threat perception in the Baltic States was assessed it became clear that Russia has re-emphasized its intentions to increase its influence as a regional power, and Russia clearly states in the new defence doctrine that they see the enlargement of NATO as a threat to Russian security. The Baltic States, as the outer border of NATO in the East, cannot rule out the possibility that Russia will use air power for coercion – much as Russia did in the Georgian-Russian conflict in 2008.

NATO is protecting the Baltic airspace with its Baltic Air Policing Mission as a part of the collective defence principle. In addition to this, there is a need to improve the defence of the regional airspace. This will contribute to the improvement of the defence of the alliance airspace. One can question whether it is acceptable for NATO to deploy air power assets to the Baltic States in their Air Policing mission, with few regional ground-based air defence capabilities to protect the assets or strengthen the defence of the Baltic airspace. With modern ground-based air defence deployed in the three Baltic States, this capability will provide good protection of the NATO air defence fighters.

The Baltic States are all clearly going in the right direction when they emphasize the need to improve their ground-based air defence capabilities for homeland defence and for improved collective defence within NATO. Ground-based air defence will play a significant role in defence, and will continue to be relevant also in the future. For the Baltic States it is important that the plan to improve their ground-based air defence

capabilities is part of their concept for improved security.  Moreover, the different co-operative solutions explained in chapter four present the Baltic States with several options for future cross-border partnerships. Solutions that will assist the Baltic States in obtaining their desired capabilities, given their limited defence resources, and mitigate the difficulties in defence spending are essential. Seeking co-operative solutions with neighbouring countries with similar challenges and objectives are supported by both NATO and the EU.  Regardless of what co-operative solution the Baltic States choose, going in separate ways should be avoided as this might hamper their ambitions to provide the military capabilities over time.

For small nation air forces, a joint investment program is a viable option rather than going it alone. This is even more relevant for niche air forces such as the Baltic States. Like the Multinational Fighter Program and its off-spring the European Participating Air Forces/European Expeditionary Air Wing, it is less costly for each nation if it co-operates in update programs, operator training, maintenance, and developing the necessary documentation. Entering a joint investment program for the enhancement of ground-based air defence is more suitable than pursuing this as a national effort. Joint investment programs are backed by the European Defence Agency, whom has already launched two research and technology programs: for "force protection" and "innovative concepts and emerging technologies".[210] In the pursuit of a medium range ground-based air defence capability the Baltic States also have the opportunity to look to the Nordic countries as models – especially Finland and Norway -- and use the synergy of co-operation to sustain an air defence capability. Norway has operated a medium range system called NASAMS for many years, and Finland has entered a procurement program to acquire the same system for their national defense.[211] These models provides the Baltic States with an excellent opportunity to work with these two nations within the framework of the Nordic Council's areas of co-operation.

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[172] Schweizer Armee, "Die Strategie der Schweizer Armee; Vision Stossrichtungen – Erläuterungen für zivile und militärische Kader", [retrieved 3rd Sep 2010] at http://www.vtg.admin.ch/internet/vtg/en/home/dokumentation/armeestrategie.parsys.0008.downloadList.29900.DownloadFile.tmp/strategieschweizerarmeed070618.pdf  p 11.

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[177] The Nordic Council, [retrieved 10th Oct 2010] at

http://www.norden.org/en/areas-of-co-operation

[178] Klaus Brummer, *The North and ESDP* (Gütersloh, June 2007) p. 53.

[179] Ibid. p. 22.

[180] Ibid. p. 30.

[181] Ibid. p. 28.

[182] Ibid. p. 29. See also Arunas Molis, "The Role and Interests of Small States in Devolping European Security and Defense Policy",in *Baltic Security & Defense Review* Vol. 8, 2006. pp. 87-88.

[183] Klaus Brummer, *The North and ESDP*, (Gütersloh June 2007) pp. 29-30

[184] Arunas Molis, p. 88.

[185] Darnis et. al, p. 15.

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Note: Fred Kagan is a miliary strategist and resident scholar at the American Enterprise Institute, a conservative think tank headquartered in Washington DC.

[197] Vitalijus Vaiksnoras, *The Role of Baltic Defense Co-operation for the Security of Estonia, Latvia and Lithuania* (Vilnius, 2000/2002), pp 28-30

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[200] Lt. Col Dave Orr (2003), "The Deployable Air Task Force: A model for EU/NATO Defense Force Integration," in *USAF Air & Space Power Journal, Fall 2003*. [retrieved 2nd Sep 2010] at
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[201] European Air Group at http://www.euroairgroup.org/eag/objectives/

[202] Vaiksnoras, p. 15.

[203] Brummer, p. 19.

[204] Ibid.

[205] Darnis et. al, p. 12.

[206] Ibid, p 32

[207] The word "significant" is used in both the Estonian and Lithuanian defense white paper related to the planned improvement of ground-based air defense.

[208] C. Freeman, 'Troop surge' strategist Fred Kagan calls for beefed-up Baltic defenses against Russia" in The *Daily Telegraph*, 23rd Aug 20008 [retrieved 7th Jan 2011] at
http://www.telegraph.co.uk/news/worldnews/europe/russia/2609100/troop-surge-strategist-fred-kagan-calls-for-beefed-up-defenses-against-russia

[209] Vaiksnoras, p. 18.

[210] European Defense Agency, "EDA Defense R&T Joint Investment Programms on Innovative Concepts and Emerging Technology (JIP-ICET)" (Brussels Mar 2010) at http://www.eda.europa.eu/genericitem.aspx?id=368
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# Conventional Armed Forces' Thinking About Irregular Warfare Tactics– A Challenge for Officers' Training

*By Captain (Navy) Michael Gustafson[*]*

## Introduction and Background

The background of this article refers to the contemporary situation in the Swedish armed forces as it undergoes a transformation from a strictly regular warfare force focused on repelling an invasion of Sweden, to a new style force that is capable of conducting regular warfare, mostly in the context of multinational operations, as well as a force that can operate in irregular warfare environments.  This is all laid out in the new 2011 Swedish Military Strategy Doctrine,[227] where also the conclusions taken from the abovementioned doctrine have been used.[228] As the development of both training and tactics are obvious areas of concern for the Swedish armed forces, the understanding of how officers think and how they state their thinking is highly important. Essentially, how can the "box" of tactical thinking be characterised in order to develop new forms of thinking—especially the capability to think "out of the box"?

Traits of current tactical thinking have, however, not yet been studied in the Swedish Army. Such knowledge is important in order to contribute to the *adaptation* of fighting capabilities and for the officers' training and education. Since 2011 obtaining that knowledge has also been accepted as a goal of the Swedish General Inspector of the Army. I will argue that, at the core of the military profession, lies "*tactics*", which generally means, "*how to use military means and methods according to a strategy*". In order to be able to understand policy, and to provide a realistic military support for decision-making, the officer has to be able to understand and explain what risks and possibilities might be at stake in irregular warfare. As a foundation an officer needs to rely on a thorough understanding, on

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[*] *Michael Gustafson is a Captain in the Royal Swedish Navy, currently working in the Swedish National Defence College, War studies Department, Section of Operational Art and Tactics. Since 2010 he has been a student at the Finnish National Defence University, Doctoral studies in Military Science.*

analysis, on an articulation of the analysis, and finally the practical employment of *tactics*. Knowing and understanding tactics in theory and practice is, therefore, arguably even more important when entering an unfamiliar, and for many a conceptually ontologically new, area. Military tactics is, in general, an area that has only been given limited attention in Sweden, and I have chosen to embark upon a dissertation study within the framework of *Irregular warfare*,[229] particularly regarding tactics in counterinsurgency operations.  This study is driven by the current need for more perspectives in this area. The scope of the dissertation study is to examine what kind of challenges and choices irregular warfare and counterinsurgency might put to tactics as a result of how tactics is being thought about. The role of traditional military attitude to irregular warfare and the interdependency between leadership[230] and tactical concepts, and thus ultimately the utility of force, is one discussion in the study. The approach is to examine how officers´ describe their thinking. The aim is to map standpoints and positions, primarily in order to identify relations between such groupings in the Swedish Army that are tasked to combat missions, also to identify standpoints and positions in irregular warfare scenarios. Such relations might reveal friction, risks, or challenged power structures that might encourage or endanger development, or might enhance adaptive tactical ability.

Relations might also show certain aspects that are important, both in general for the thinking characteristics of the forces and the officers, for force transformation, as well as being of special interest for different units. The study will involve a whole population of relevant officers (n= approximately 40). The main method for the investigation is called sociological prosopography, which means here the collection and analysis of data concerning the officer's standpoints and positions. The expected results are a mapping and analysis of the field (or "box") of tactical thinking within the Swedish Army in regards to irregular warfare.  This article discusses the preliminary result of about half the empirical enquiry as it relates to certain aspects, and the usefulness of the theory and method where "Field theory" is thought of as "Box theory." What is the "box" of thinking that officers currently have to be able to work effectively in, as well as think outside of? It is a question that can be described as a parallel understanding of regular and irregular warfare.

## The context of "irregular warfare"

Research on understanding warfare and how to develop more effective fighting power struggles with strategy and comprehensive approaches and how to use the tools of both civilian and military power. A common view is the vital importance of the local conditions of the operational environment and thereby the implications for realistic strategies. The same cannot be said to be equally important. As a starting point I will argue that a deeper understanding of the characteristics of tactical thought by officers will provide sound decision making support to politicians. In order to build a foundation for a study of tactical thinking in irregular warfare I have found it relevant first to view how the context, "irregular warfare," has been explained in the literature and doctrines. As a type of warfare more or less independent of, or interlinked to, regular warfare, it has been articulated and studied for a long time under various labels such as *guerrilla warfare, low-intensity conflicts, revolutionary warfare, protracted warfare* and s*mall wars.*

From an historical point of view, Charles Callwell's "*Small Wars, their principles and practice*" originally from 1896[231] is of particular interest. Of similar importance is the U.S. Marine Corps "*Small Wars Manual*"[232] published in 1940. The most prominent military thinker of the Western nations since the mid- 19th century, Carl von Clausewitz, addresses and discusses the phenomena as "p*eoples´ warfare*" or "*the people in arms*" in his famous epos "*On War*" from 1832.[233] This minor part of his grand analysis of warfare contains a comprehensive explanation and view of the phenomena. Still, from the 19th century to 2007, when the U.S. military started to acknowledge "s*mall wars*" with terms such as *"Counter-insurgency"* and "*Irregular warfare*"-- especially in the first modern doctrine and Field manual on the subject FM 3-24 *Counterinsurgency* (2006), the subject has been of limited interest in Western military concepts, education and training. This is noted by Professor James Kiras in his introduction to the chapter of irregular warfare in the second edition of "*Strategy in the contemporary world"[234]* and this issue also is commented on by Widén and Ångström in "*Militärteorins grunder*" in 2004[235]. The same lack of attention to the subject is also noted by historians, according to Ian Becket in his overview of the subject in "*Modern Insurgencies and Counter-Insurgencies"*[236].

My dissertation literature study on how to understand and explain irregular warfare focused on the period from Clausewitz to 2010 and examined how the literature influenced the views and understanding of this subject.  This period covers the start of modern military theory, a period almost exclusively devoted to regular warfare, then included brief periods when the need to handle small wars against non-state enemies was necessary, primarily the 1950- to the 1960s, to the paradigm developed after the Iraq and Afghanistan operations that began in 2003, and in particular after 2006 with the issuing of the American Army/Marine Corps FM 3-24 *Counterinsurgency*. Regarding definitions, the "area of irregular warfare" has been, at time, problematic for general military theory according to experts such as Bernard Fall[237] and Frank Kitson[238] from the Cold War era to contemporary thinkers as Colin Gray[239]. Contemporary experts in the field such as David KilCullen[240] move more rapidly beyond the framing of definitions and focus on sub-definitions. Another example of this approach is David Ucko[241] who, in a few words, gives a rather clear picture of labels as *counterinsurgency, counter terrorism,* and *stability operations* among others. Colin Gray's arguments that war is war, although the character of activities in the operational environment differs, delivers a comprehensive view of "what is Irregular Warfare?" and how it differs from regular warfare, and especially related this the Western military culture.[242]

A comprehensive academic view of definitions of small wars is also delivered in Roger Beaumont's *"Small War: Definitions and Dimensions"* from 1995[243]. For the purpose of the literature study, definitions according to Appendix 1 have been used as framing tools. For the Swedish Armed Forces the situation, with no discussions and no definitions, changed in 2011 as the new Military Strategy Doctrine includes such texts, even if they should be considered a first step on a long way to broaden and deepen existing military theory.  Those definitions and explanations are, in general, the same as in Appendix 1.

## The theory and methodological approach

Referring to areas as tactics and different kinds of warfare we enter the discourse[244] linked to explanations and understanding of theory and practice.  This discourse, in turn, is linked to military social culture, traditions, and education. Scientific approaches to war studies concerning

phenomena linked to war and warfare are not self-evident, even if the subject is often referred to as a social science with more hermeneutic links than strictly a positivistic basis. The strong technological focus that has characterized warfare during the 19th and – 20th centuries has traits of positivism and realistic/rational philosophy, and also has strong links to natural science. Parts of war studies such as tactics and operational art might, on the other hand, might arguably be seen as constructions of mental images and explanations of aspects that are immaterial, and thereby interpretable, and to a great extent are a way to see reality and truth as different forms of constructions.[245] Against this opinion, the strong influence of military history studied with hermeneutic approaches might be raised as a more adequate way of describing traditional scientific influence in war studies. However, as neither "tactics" nor "irregular warfare" can be limited to physical phenomena, they have to be seen as labels on activities problematic to define and measure.  In this respect I believe that constructionism is a suitable approach for creating a view of a certain "box of thinking".

When describing traits of tactical thinking in irregular warfare, the latter should be understood as a construct that characterized the context where tactics will be employed. I approach this context in the initial literature study from a deductive angle with a discursive analysis of how the term "irregular warfare" has been explained and articulated by some highly influential writing on military theory and practice. The result is a deconstructed view of general traits commonly addressed as characteristics of irregular warfare.  This forms an empirical generalization that is used to guide this study.  In particular, the four different areas of violence (argued commonly to exist in irregular warfare) and concerns regarding overt versus low visibility tactical capabilities, have been used in the interviews conducted for this study. It is worth underlining that I see thinking as social construction of dominating discourses[246] that dialectically exist between man and society. Thus, it is possible to consider the following analysis in constructionist terms.

The "thinking" as a label can be analysed and linked to, for example Michel Foucault[247], who focuses on the practical consequences of discourse analysis, and Pierre Bourdieu´s field theories with different "capital" forms, habitus and fields, such as production and consumption fields where the capital is distributed.[248]  Bourdieu delivers a theory and

methodology toolbox based on empirical data collection on different human categories that include creative construction work in order to adapt the investigation for the actual category to be examined. Such use of the field theory with unique research adaptations is clearly encouraged by Bourdieu, and I have chosen that scientific position to use in the study.

Viewed through Bourdieu's lenses, the scientific position of social constructionism generally uses the primary method of investigation of so called sociologic prosopography,[249] which here means collecting and analysing data concerning the officer's standpoints and positions. Concepts such as capital, field and relations that were developed by Bourdieu and his collaborators are used as tools in the study along with sociologic prosopography. Capital is understood as assets that are thought to have a certain value that the officers possess, such as education/training capital, cultural capital, social and military social capital, and such assets that in the specific field of tactics have certain symbolic value. One such example is the experiences of having participated in combat and war situations. Linked to thinking about tactics, or the expressed views on tactics, I have adapted Bourdieu´s field theory[250] aspect of *cultural capital* to the military cultural/traditional value capital (regular warfare/national defence culture/tradition versus irregular warfare/multinational crises response operations such as COIN-operations preference/priority culture). The examination of such statements from officers belonging to a traditional regular warfare culture is a suitable starting point. The data from these capital assets, in combination with complementary data on social background, career, military education, generation, age and so on, form the basis for analysis of the social field where the officers are positioned. Examples of clusters of statements are: age, experience of international missions, preferences for either offensive/defensive/stabilization tasks, priorities to regular or irregular warfare, views on subversion/ terrorism/guerrilla warfare/tactical combat, focus on operating in larger or smaller formations, capabilities for overt versus limited visible actions, and views on needs for war fighting capabilities, enemy – or people- centric focus.

The aim of the study has been to create an empirical data base that is organized per different aspects with the aim of revealing a picture of a box (a new kind of construction) of how thinking on tactics might be understood and explained according to the Swedish officer culture,

traditions, practise and military theory. Depending of the character of that box's inner structure, some possibilities emerge regarding the analysis of certain logical aspects. Do certain relations between clusters of thinking show logical patterns or not when compared to, for example, statements about doctrines, or oral statements from the interviews? The study will develop an analysis of a current *"box of standpoints on tactics,"* meaning the relations between different standpoints and attitudes taken from the interviews.. Other methods, such as textual analysis, have been used in the literature study.

Questions such as: "*Are there potential frictions between the groupings of tactical thinking and how might power structures and relations effect development of "thinking tactics*?" and, "*In the end, what practical, personnel and material consequences for tactics in Irregular warfare might be at hands due to the "thinking capital?*" still seem to be relevant even if one believes that a narrower narrow approach is necessary and a focus on particular groupings and relations is most relevant. In the following results I will show, first, that some initial approximations from the first 10 officers, followed by a more substantial amount of enquiry   (20 officers), and some preliminary results that especially focus on some groupings and relations, so far seem to be clear examples of "characteristics" of tactical thinking inside the current "box."

## Definitions and comments

The following section defines how different concepts in the Field Theory are used in this study.

*Capital*: symbolic and material assets in general. The Capital Theory/aspect is a tool that permits very different phenomena are to be combined, as they are otherwise often separated in social science or humanistic disciplines.[251] Pierre Bourdieu´s interest was particularly directed to the relations between the *art* of capital and between groupings of people with different sorts of capital. Bourdieus´s sociological project is characterised by the assumption that educational sociology is not separable from cultural sociology.[252] For me, the sociology of tactics is not separable from military sociology in general.

*Cultural capital:* cultivated language, noblesse, "better manners." This can be seen as a sub-part of the more general notion of "s*ymbolic capital*" and on another abstraction level.[253] Here the meaning of "*military cultural*

*capital"* can be obtained both by heritage and by acquisition. Officer culture, soldier culture, and war fighting culture are examples of different aspects of military culture that have their own distinctive attributes, such as differences between services and arms. These differences depend on what values are traditionally held high within units and different groupings.

*Social capital:* relatives, friends, associations, memberships, relations etc. Here it includes the meaning of *"military social capital."* For example, is commanding larger mechanized/armour units generally viewed as more important than commanding a smaller elite ranger unit? Social capital is an aspect that deals with both assets in their reality, and in viewing these assets when they are compared to other assets (a relational activity).[254]

*Economic capital:* material assets and knowledge of the rules of economy. Here we see the meaning of *"military/defence economic capital."* For example, senior officers working at higher levels in a headquarters generally have greater economic influence possibilities compared to junior officers at lower levels in field units.

*Habitus:* a system of dispositions that effect how people act, think and orient in the social world, often of unconscious character. Habitus is created through childhood, school, training and education and the life that one lives. Habitus can be seen as strategies that make people think, act and orientate in the world.[255] For Bourdieu, practice and ways of thinking are more important than assets.[256] The study will not examine and analyse habitus per se, but discuss and reflect on this aspect linked to specific results to be decided later on.

*Field:* a system of relations between positions.

*Social field:* an unstable area in the society where people and institutions are arguing on something that they have in common. Such fields can be of either "Production field" or "Consumer field" character. The Field theory can be seen as a tool for the study of distribution of capital. Here with the meaning of the "military social field" that relates to the field of tactics.

Thoughts on tactics (tactical capital): An example of aspects where different positions might be found:

- Task-oriented units (combat, defence, intelligence….)
- Fixed organizational oriented units (structures as company, battalion, brigade……)
- Conceptual orientation (large, small units, ad hoc – static, mobile, enemy /people-centric)
- Performance orientation  (overt, covert, clandestine approaches)
- Warfare styles (offensive – defensive, dispersed, formations )
- Mission orientation (anti-subversion, anti-sabotage, counter guerrilla warfare, counter terrorism, tactical combat, joint operations)
- Value preferences (prefer Regular Warfare, Irregular Warfare, Mixed/Hybrid Warfare)
- Violence level orientation (military violence, police violence)
- Time perspective orientation
- Unit/arms priority (Mech, Special Operation Forces, Infantry, Security units, Rangers)
- Thinking ways (in-box or out-box)
- National or International focus
- Orthodox or Unorthodox thinking orientation

The diagram on the next page shows the first sketch of a Field Diagram with primarily three main aspects to be considered. In each quadrant the four areas of violence in irregular warfare noted in the literature study is presented. In the horizontall column the character of military tactical thinking (offensive or more defensive basic focus and mind-set) is presented.  In the vertical column the character of tactical thinking concepts (mostly traditional unit structures for collective actions in fixed

or closed formations, or specialized task-groups) is presented.

**Tactical Capital; Conceptual – Cultural oriented Field diagram structure - Draft**
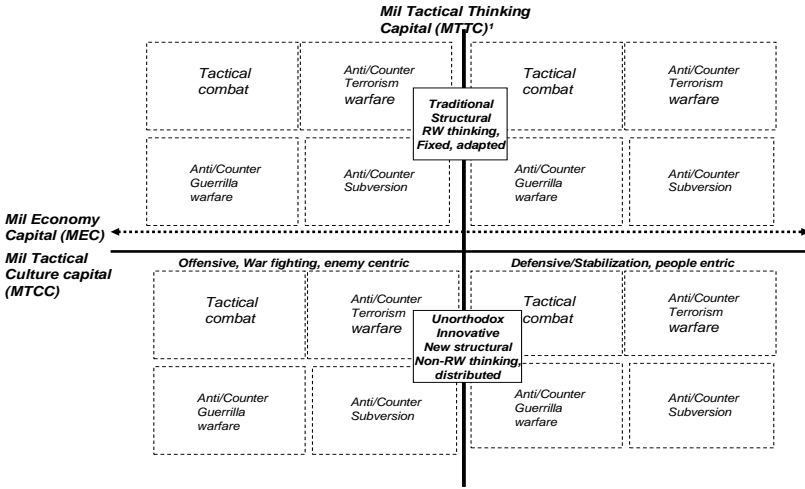


**Picture 1.** Field diagram (draft). Tactical Capital (conceptual thinking), Tactical Capital (military culture) and area of violence considerations.

This Field Diagram has some aspects that will result in differing positions, but it nonetheless useful for setting out statements that are similar and the diagram can be used for describing "the exterior character" of a particular field. In dealing with such a field's inner/internal character of structure, I am currently working with separate sub-field diagrams, but only in two dimensions, such as the examples in section 5. The analysis (pp. 15-20) will show this in depth. In order to create a base for constructing the key investigation design, the two-step pilot survey (part one; a sample of officers participating in the 2010 staff exercise Combined Joint Staff Exercise – 10; and part two, a sample of officers at the Swedish National Defence College during the autumn of 2010) with open and closed questions has been analysed qualitatively and quantitatively. The surveys were similar for both samples, and included one part questions related to empirical generalizations from the literature study, a set of fully open question with higher abstraction level possibilities, and finally a set of closed questions with a low abstraction level regarding actual statements

from the currently used (US) tactical doctrine for counterinsurgency, US Army Field Manual, FM 3.24-2 *Tactics in COIN*. The results regarding the thinking of officers on tactics in irregular warfare can be summarized broadly as, *"Challenges exist for tactics in irregular warfare, many belonging to the ethical and moral area and the roles of the military and the police. Most concern the area of subversion and terrorism, yet higher forms of tactical ground operations have to be handled. There is a need for developing tactical skills other than what belongs to regular warfare (those are still needed). New ways of thinking and using tactics seem to be important for many officers. The theoretical construct that comes from empirical generalizing seems to be in line with many officers' view of the content of irregular warfare."*

This result occurs in areas of thinking such as: different forms of violence, the need for development of tactical thinking, and the need for new ways of thinking per se, indicates a group of more homogenous thoughts. In short, thinking has to be developed and new aspects have to include parallel current thinking to produce a solid understanding.  At the same time the need for thinking as "usual," and thinking "in a very new fashion," is present.  New approaches include techniques that permit "multi-aspect " and "dual ontological" thinking and acting with tactics. The further work with in-depth interviews has been built on the results taken from the literature study and the pilot study, and this has also been enlarged in order to indicate new areas and different ways of thinking on tactics. There are several open questions, and the interviews often lasted up to two hours.  This approach was chosen to make it possible to discover some aspects that had hitherto gone unnoticed. The interviews were conducted from March to June 2011, with a few exceptions, at each regiment in the investigated units. The interviews were all voluntarily recorded, and consisted of the following structure:

- Capital description 1. Biographical data – Social Capital (21 open questions)
- Capital description 2. Educational Capital (6 open questions)
- Capital description 3. Cultural Capital (3 open and 8 structured questions with each four answer alternatives).
- Capital description 4. Tactical Capital (10 structured questions and 1 open question)
- Capital description 5. Influence Capital (4 open questions)

- Nine (9) open questions on what can characterize the officers thinking on tactics in general
- One (1) Tactical example with a COIN-scenario on the brigade/battalion level containing different forms of violence. The task was to describe needs for capabilities, conceptual thinking, and primarily tactical use of one's "own" type of unit.

After transcription the officers have had the possibility to answer questions left out during the interview, and adjust errors as mishearing or misunderstanding from the transcription work.

The Empirical Material

The key target population/sample has been decided to be a Swedish Army/amphibious officer in field units at company and battalion levels. The motive for choosing this category is that this group is arguably close to practical tactics, and still has a need for theoretical understanding and thinking before, during, and after the tactical execution of actions. The sample consists of the officers assigned during 2011 as battalion or company commanding officers in the seven so called "*manoeuvre battalions*" (with differences regarding degree and type of mechanized/armour vehicles), two intelligence/security battalions, one ranger battalion, and one amphibious battalion. The total sample consists of approximately 40-45 officers, depending on status in each unit due to the on-going transformation.

**The first set of Interview results**
**Summary of the first 10 Interview results**

An analysis of the first ten interviews, during spring 2011, indicates a socially homogenous middle class group with a broad variety of backgrounds in education, both military and civilian. The military background is mixed (infantry, armour, cavalry, and mechanized units) and the international experience of the group is mixed and rather limited. The results concerning military culture show a slightly higher weight for offensive focus or mixed offensive-defensive statements. Most officers prioritize collective or mixed collective/distributed operations, however not only focusing on combat. The tasks neutral field officers do in general prioritize regular warfare for national defence as the main basis for the

officer knowledge and education. They do, however recognise irregular warfare as an important area for knowledge and understanding. Concerning international missions of COIN-character, they prioritize a people-centric approach and also, when necessary, prioritize enemy-centric capabilities. Regarding tactical capital, most officers state that they focus on the distributed combat within the area of guerrilla warfare. They prefer the operations to be a mixture of open and low-visibility actions. Conceptually, a certain level of unit specialization is considered necessary. However concerns are stated related to the limited number of units in the Army. In COIN operations the answers indicate that an almost equal number thought mostly about military tasks as compared to civilian or mixed tasks. The focus is generally on troops before technical matters. The result of the officers' statements about their military culture, their view on tactical concepts, and primarily what level of violence has to be employed is shown in the diagram with an original Field Diagram version 1.0.
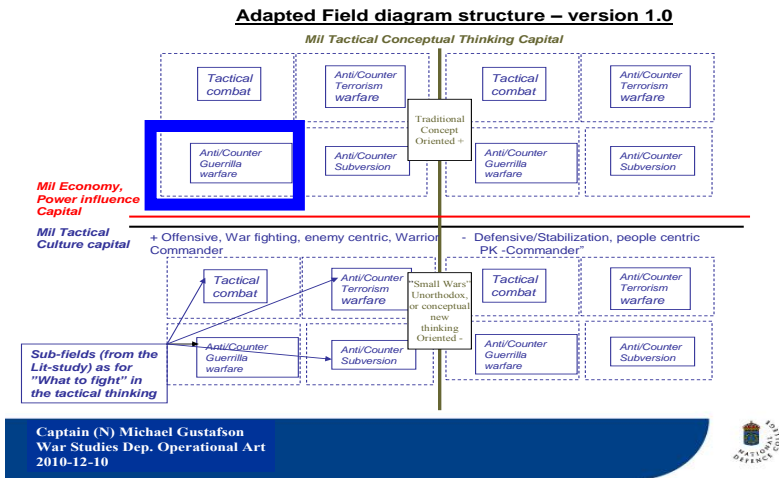


**Picture 2.** Field Diagram showing the position of the first 10 officers primary thinking about violence in irregular warfare, their views of their own military cultural capital, and views on tactical conceptual thinking.

The results indicate traditional balanced tactical thinking (collective combat) from a traditional offensive/defensive military culture, and most thinking is focusing on distributed operations in anti-guerrilla warfare

operations. An example of a resulting question is: how shall other aspects of irregular warfare be handled? What education is important for gaining a deeper insight into all four areas of violence that irregular warfare here is generalized to contain? This sort of similar thinking does not, however, constitute a field. If, however, other aspects of tactical thinking, instead of "conceptual thinking," are studied then clusters of statements emerge, thus revealing the first contours of a Swedish tactical thinking field.

The result of this analysis was based on 28 quantitative questions from the interviews, with 12 similarly answered questions, and 16 differently answered questions. Several different sub-fields can thus be analysed further, as well as several areas where question statements were answered in a similar way.  The overall result indicates that Bourdieu´s field theory and method could be used further, and several interesting results concerning further education in tactics are already possible to indicate. It is also viewed that the method could be interesting for other areas in officers' education, or for gaining knowledge in a staff, or for a commander concerned with how the officers think about tactics.

**Summary of the first 20 interview results**

A short overview of some preliminary results is presented here with a focus on some characteristics of the officer's social, educational and military background and experience. Some results from the quantitative section of questions concerning "Military Cultural Capital" and "Tactical Thinking Capital" are presented.

**Social and Educational Capital**: The group of twenty officers consists of middle age male personnel (40.3 years) from central and southern Sweden, most (15) living in relations (married) with two children living at home. Most of them (15) have a 3-year higher secondary school and half (7) attended social science programmes. Only one (1) has an academic degree (MA). Four (4) have civilian education. The group can be characterized as a middle class group. A broad span exists in military education: captain's course (6), major's course (7), higher officer education/Lt Col. course (7).

The ***military background*** is mixed**;** seven (7) infantry, nine (9) armour, two (2) cavalry and one (1) logistics. The group currently represents all

unit types from mechanized units (dominant), to intelligence and security units, and one ranger unit. Seventeen (17) officers have **experience from international missions**, mainly from the Balkans, and four from Afghanistan (MOT, OMLT, G3 and one as infantry Coy CO). Seven (7) officers have participated in three or four missions abroad. Eight (8) officers have only served in one (1) or no (0) international missions. Seven (7) officers have international experience as Company CO (one in ISAF). Seven (7) have **experienced combat/warlike situations** directly or indirectly.

### Military Cultural Capital (7 questions)

| *Question no;* | *Homogenous results (1)* |
|---|---|
| 3.5 | Prioritizing/own military focus = offensive-defensive-combination (14-4-2) |

| | *Vvariation results (6)* |
|---|---|
| 3.6 | Priority people/enemy/combination centric approach in COIN( 11-2-6) |
| 3.7 | Focusing on larger/smaller units/combination (7-6-6) |
| 3.8 | Focusing on combat/intelligence/combination (8-8-3) |
| 3.9 | Priority for national defence tactics/international mission tactics/ Combination (10-5-4) |
| 3.11 | Priority for commanding/developing tactics for lager units/ Smaller units/combination (9-7-3) |
| 3.12 | Consider to be a troop/staff/combination officer (9-1-7) |

**Tactical thinking Capital (10 questions)**

*Question no;    Homogenous results (5)*

4.1    Focusing on Guerrilla warfare as main violence in
             IW (2-2-19-2(3)-1).
4.2    Focusing on mainly distributed units/formations
             activities in IW (2-14-3-?)
4.3    Priority on RW capabilities (12-2-2)
4.4    A certain need for a degree of specializing in units
          (1-16-1-1)

*Variation results (5)*

4.5    Thinking on tactics often/seldom (9-9-2)
4.6    Thinking tactics as theory/practice/combination (0-9-10)
4.8    Need capabilities for overt/low visible/combination  ops
          (5-5-10)
4.9    A focus on troops before technology (12-4-3)

4.10      Focusing on military/civilian/combination
          tasks/activities (8-5-6)
4.11      Focusing on kinetic/non kinetic/combination ops
          (2-6-12)

## Analysis – Traces of a field structure

With use of Field Theory and adapted field diagram techniques, several options emerge for using the data. The following examples aim to show different kinds of results that are useful for different questions. Results, divided into either homogenous or variable characters, give at least three types of sub-field structures: *homogenous – variation, homogenous- homogenous,* and *variation – variation*, of which "*homogenous-homogenous*" apparently will show a non-field related structure depending on the *same* statements in the group.

Such result are, however, interesting for defining traits of a common view/statement that is representative of the whole group. Such result

might be seen as external traits of a particular field that, to be unrevealed (regarding the very aspects that has been investigated – no others) has to be set out using results from *homogenous – variation* statements and *variation – variation* statements. According to the results of more homogenous character the following "external character of the field" can be summarized as:

*The officers` group states dominantly an offensive focus in general. They focus on guerrilla warfare in IW and primarily on using distributed action for such a threat. Most of them regard capabilities in regular warfare to be more important than capabilities for irregular warfare. A certain level of specialization in units, preferable working in task-group concepts, is stated as important (but not too far developed specializing). The officer group prioritizes troops before technology in their stated tactical thinking in IW.*

With such a description of the officers` thinking of a more unified character one can compare what doctrines for COIN tactics address and in the case for Swedish officers, what the new 2011 Swedish Military Strategy Doctrine lines out as important aspects. The task in this study (and for the dissertation study) is however to go deeper into what characterizes thoughts on tactics within a collective of officers. Thus, the result of the variation areas will be positioned in a field diagram. Clusters of statements from five questions will now be presented as examples of "the inner structure" of the Field. Results from these questions are here related vertically. Horizontally are addressed statements of basic military focus (offensive/defensive, question 3.5). The examples are the following;

Example 1.  Focus on military or civilian tasks in COIN operations (question 4.10)
Example 2.  Focus on combat or intelligence/reconnaissance (question 3.8)
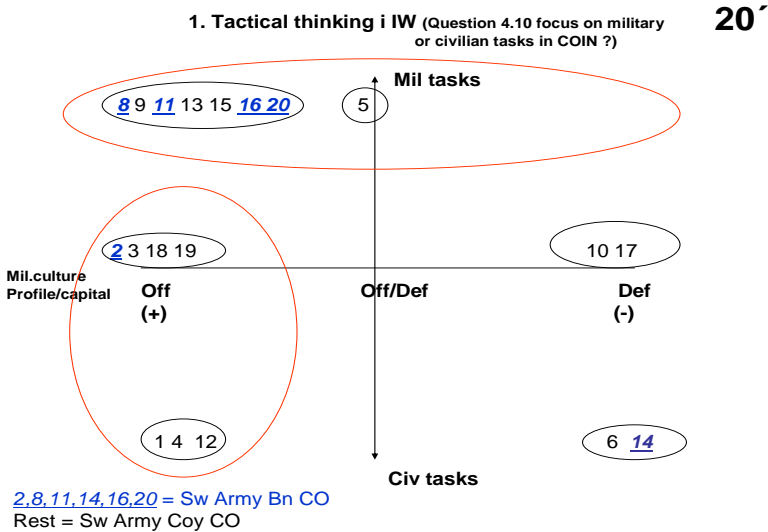Example 3.  Focus on open activities or hidden actions (question 4.8)
Example 4.  Focus on collectively or distributed unit operations/actions (question 4.2)
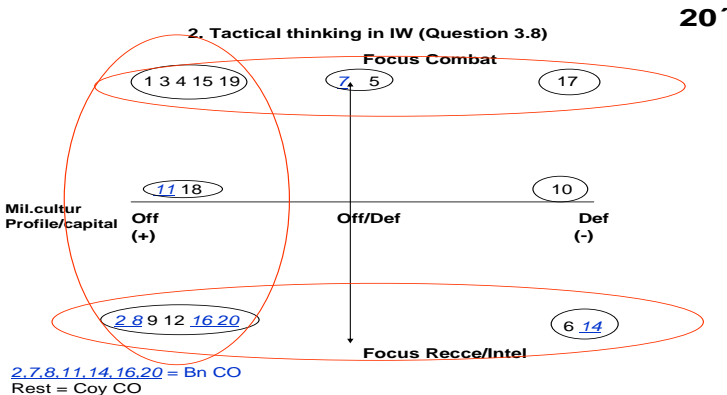Example 5.  Focus on the development of larger or smaller units ("mech" or "ranger"

performance) (question 3.11)

Example 1.  Focus on military or civilian tasks in COIN operations (question 4.10)



**1. Tactical thinking i IW** (Question 4.10 focus on military or civilian tasks in COIN ?)          **20´**

Mil tasks

*8* 9 *11* 13 15 *16 20*    5

*2* 3 18 19          10 17

Mil.culture
Profile/capital     **Off**          **Off/Def**          **Def**
                    **(+)**                                **(-)**

1 4  12          6 *14*

Civ tasks

*2,8,11,14,16,20* = Sw Army Bn CO
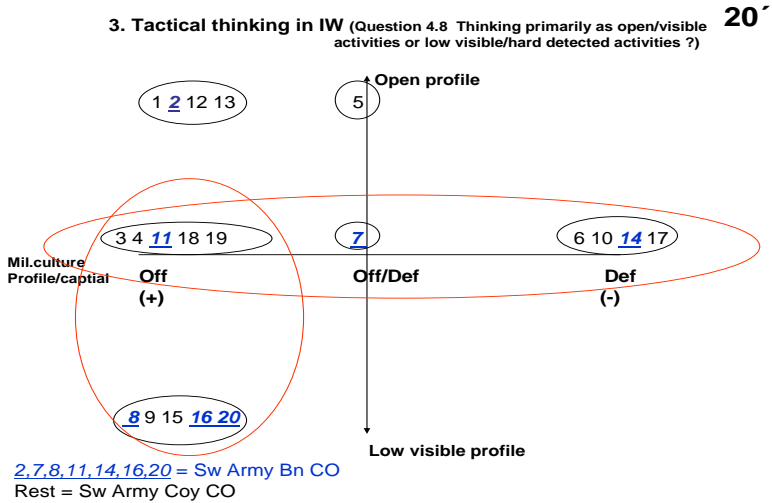Rest = Sw Army Coy CO

**Indication** ; One group (7) (with four of six battalion commanders) thought  mostly on the military tasks in COIN, another group, (7) either thought mostly about the civilian tasks or civilian/military tasks equally.

Example 2.  Focus on combat or intelligence/reconnaissance (question 3.8)



**2. Tactical thinking in IW (Question 3.8)**          **20´**

Focus Combat

1 3 4 15 19     *7* 5          17

*11* 18          10

Mil.cultur
Profile/capital     **Off**          **Off/Def**          **Def**
                    **(+)**                                **(-)**

*2* 8 9 12 *16 20*          6 *14*

Focus Recce/Intel

*2,7,8,11,14,16,20* = Bn CO
Rest = Coy CO

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**Indication;** One group (8) (with 5 of 7 battalion commanders) thought more on Intelligence as compared to combat, another group (8) thought vice versa.

Example 3.  Focus on open activities or hidden actions (question 4.8)

**3. Tactical thinking in IW** (Question 4.8  Thinking primarily as open/visible activities or low visible/hard detected activities ?)  **20´**



2,7,8,11,14,16,20 = Sw Army Bn CO
Rest = Sw Army Coy CO

**Indication**: One group (10) (with 2 battalion commanders) stated their opinion of the need for both overt and low visibility activities as part of their tactical capability. Two groups of each five (5) state opposite thinking on this aspect.

Example 4.  Focus on collectively or distributed unit operations/actions (question 4.2)



**4. Tactical thinking in IW (Question 4.2)**        **20´**
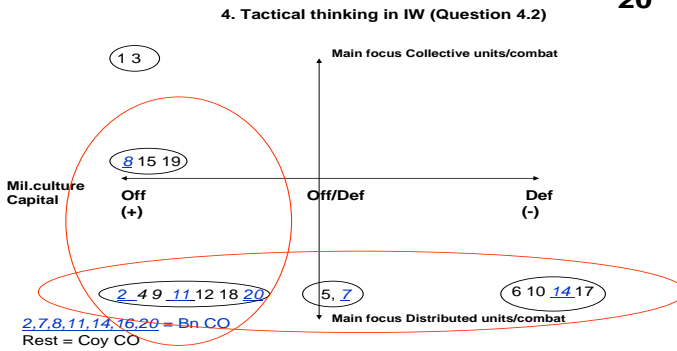
**Indication**; A major group (13) (4 battalion commanders) prioritize distributed units/combat/actions. The "offensive" officers are divided however between collective and distributed actions.

Example 5.  Focus on the development of larger or smaller units ("Mech" or "Ranger"  performance) (question 3.11)



**5. Tactical thinking i IW** (Question 3.11 Priority *command or developing tactics* for)        **20´**
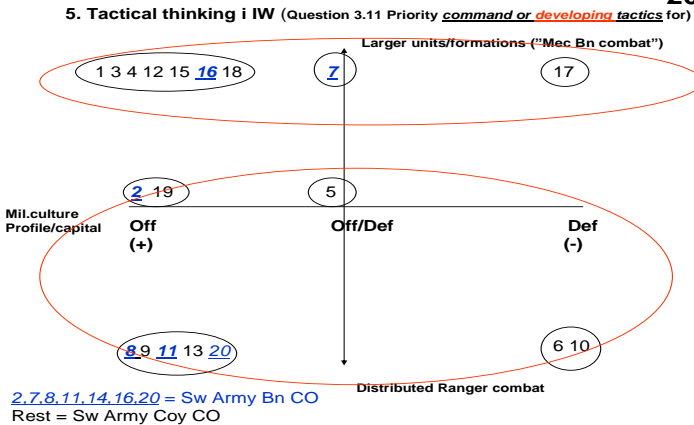
**Indication**: A major group of nine (9) officers (but only 2 battalion commanders) considered commanding/developing larger units more in

accordance with their personal tactical thinking. A slightly smaller group (7) (but with 3 battalion commanders) gave the opposite statement.

According to these results, with a greater degree of variation, the following "*indications of the internal character of the field concerning certain sub-structures*" can be described as:

**1. Regarding focus on military and/or civilian tasks in COIN,** two groups are identified; one (7 with 4 of 6 battalion commanders) that is military task focused, and one group (7) that is equally focused on civilian and/or civilian/military tasks. Both groups state belonging to the more offensive military cultural tradition and basic focus.

**2. Regarding focus on combat or Intelligence/Recce**, two groups are identified; one  (8 with 5 of 7 battalion commanders) thinks more on Intelligence as compared to combat, another group (8) thinks vice versa. Both groups state belonging to the more offensive military cultural tradition and basic focus.

**3. Regarding focus on needs for overt and/or low visible activities for their tactical capability**, three groups are identified, one (10 with 2 battalion commanders) state their opinion that both categories of tactical capability. Two groups of each five (5) state opposite positions on this aspect, either on overt or on low visible capabilities.

**4. Regarding focus on collective or distributed operations**, one major group is identified (13 with 4 battalion commanders) who would prioritize distributed units/combat/actions. This group consists of officers both "offensive" and "defensive". The "offensive" officers are however divided between collective and distributed actions. All "defensive" officers equally prioritize collective and distributed operations/capabilities.

**5. Regarding prioritizing and commanding/developing larger or smaller units**, two groups are identified, one group of nine (9, but only 2 battalion commanders) who consider commanding/developing larger units more in accordance with their personal tactical thinking.  One slightly minor group (7 but with 3 battalion commanders) gave the opposite statement. The major part is "offensive," but divided between "larger" and "smaller".

The field inner structure seems to contain relational distinctions (polarities) between first, priorities on military, and/or civilian, task focus in COIN. The military focus is dominant among the battalion commanders. Secondly, between the focus on combat or intelligence, the intelligence focus is dominant among the battalion commanders. Third,

between overt or low-visibility capabilities there are variations in the battalion commanders' positions. Fourth, there is a position between the focus on collective or distributed operations with a dominant company and battalion commander position for the latter. Finally, regarding command/development priorities for larger or smaller unit capability, there are variations in both battalion and company commander positions.

These exemplified aspects (military/civilian tasks, combat/intelligence priority, overt/low visible capabilities, collective/distributed operations, command/development priority for larger or smaller unit structures) can be linked to a rather unified picture of what is often argued to be important tactical factors in irregular warfare and COIN. Differences in positions, such as what has been indicated as possible existence in the investigated factors might bring forward effects, either fruitful for challenging tactical thinking, development and creativity, or power struggle for influence and recourses gaining for the "own unit" or "own idea". It wouldn't be too risky to say that an interaction effect is easy to foresee. The result shows one interesting trend that might be considered unexpected from a sample of officers with a regular warfare tradition. *Battalion commanding officers dominantly state that they have intelligence, low visible capabilities and smaller units´ distributed actions more in focus than the opposite.*

This short example shows that several dimensions of aspects in IW and COIN can be linked to tactical thinking statements and positions among officers, with the use of adapted field diagrams.

*The results presented from about 50 % of the total study data are trend indications of the contemporary field of tactical thinking among Swedish Army officers. They show, I argue, that such a field can indeed be constructed and thus exists in a social constructionist aspect, for which it is not yet possible to determine the final structure. The relevance of such knowledge lies probably as much in educational issues (what areas of violence have to be examined further, and what tactical and operational problems have to be more developed), as for mission related training (what techniques of low-visible tactics shall be developed) and coming unit/capability development (what command and control functions have to be developed in order to gain functionality in larger, as well as in smaller, unit operations?).*

### Discussion and reflection

The usefulness of Pierre Bourdieu´s Field Theory has so far been tested and, with an adaptation of Field diagram components to suit this investigation, results have been possible to present that show relations between clusters of stated thoughts. The work is presented with, hopefully, a degree of transparency – in this case not to follow Bourdieu´s way in accordance with the critique that has been levelled against his work.[257] The adaptation of the Field diagrams has so far only included dimensions of "tactical thinking capital" and "military culture capital," not the "influence capital." With the full sample, this will be added.  However, an interesting trend can be observed. Higher ranking officers seem to be more concerned with intelligence than lower ranking officers.  That would, in such a case, indicate a new situation compared to the thinking during the invasion defence paradigm in Sweden. My own experience from over 30 years in the Swedish Armed Forces does not include any stronger memories of senior officers particularly interested in intelligence. Other indications also exist that in a way are "opposite" of the traditional regular warfare culture, for example, priorities for distributed actions and statements regarding low visible capabilities.

Differences or relations between how tactical thoughts are stated are, I believe, an important aspect of the new demands made upon the officer profession as officers have to be capable of operating in regular warfare environments as well as in irregular warfare scenarios. A field consisting only of "small wars" operations might indicate such an "in-boxing" that would work against the need for enhanced regular warfare tactics, both in certain scenarios in IW (as in Afghanistan currently) and, of course, in case a more traditional military symmetrical scenario turns up.

One capability aspect repeatedly emphasized regarding both irregular warfare and counterinsurgency operations with regular troops is the *ability to adapt* to different circumstances (different enemies, violence, culture, tactics, the people etc.)[258]  What seems important is to view the demands of adaptation in three ways. First, adapt regular warfare tactics to irregular warfare tactics (here with a focus on COIN-operations). Secondly, take an opposite tack and finally look to a high adaptation potential *inside* each "box."  This is a requirement that means the ability to think "outside the box" from different perspectives, and then to avoid static thinking within the "new box," and finally to be able to turn back to "the traditional box."

It might be a personal and general challenge for officers thinking about tactics, particularly those thinking in the current new "box" of irregular warfare. For Swedish officers a complementary challenge exists due to the decline in thinking (and action) in regular warfare tactics. This is especially true regarding higher units, and also regarding different units' functions and usefulness, and functions, and capabilities. This means that even if an officer regards intelligence, ranger operations, low visible capabilities, electronic warfare and psyops as important capabilities in order to task organize a particular unit, he or she might not be used to doing this in practice. If the task organization thinking, or the combined arms principle is also adapted down to the platoon level, such training does not yet exist for platoon leaders in the Swedish Army.

The use of adapted field diagrams can be further developed to a high degree, as shown in the simple drafts presented here and some of the contours of a field and some of its inner challenges and possibilities are possible to outline. The validity of results of examples from half of the empery are not yet useful to the discussion if one looks for some sort of general status. However, it can be said that the validity for this actual sample in one aspect is high. Even if education and training in irregular warfare tactics have been less prominent for these officers studied, the impact of the last years' major focus on Afghanistan has in some areas been considerable-- particularly within the regiments that set up the battalions to be deployed. The variation in the results indicates a reality of different standpoints. Finally, each respondent has had the opportunity to accept or adjust the transcriptions. The expressed thinking on tactics in irregular warfare from this sample of battalion and company commanding officers will probably not change in a short time perspective.

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[254] Donald Broady, Kapitalbegreppet som utbildningssociologiskt verktyg. p 15

[255] Ibid. p. 16

[256] Ibid. p. 15

[257] Donald Broady, ed. *Om Pierre Bourdies Sociologi*, Kultur och Utbildning, Universitets- och
    Högskoleämbetet, Forskning och Utveckling för Högskolan, 1985:4, p. 9

[258] US. Army FM 3.24 COIN, 2007, p. 196 Learning and Adapting, p. 252 The Learning Imperative

# The Gulf of Guinea: Military and Non-Military Ways of Combatting Piracy

*This article won the prize for the best Individual Study Paper of the BALTDEFCOL Joint Course of 2012*

*By Maj. Eero Tepp*
*Estonian Army*

For many people, piracy still brings to mind the skull and crossbones of the Jolly Roger; Robert Louis Stevenson's *Treasure Island*; and the legendary wrongdoings of Blackbeard. More recently, Hollywood has offered us the adventures of the swashbuckling Captain Jack Sparrow and his fellow pirates in the immensely popular *Pirates of the Caribbean*. Therefore, when we think of pirates, we visualise comical characters with a wooden leg, an eye-patch, a tricorne and a parrot, sailing around the world aboard a big wooden ship, and landing on beautiful islands to bury the treasures they have captured on their latest raids. In the twenty-first century, piracy is a far cry from its cartoonish interpretations in popular culture. More than ever, piracy poses a grave threat to national security and international trade. It forces us to reconsider our conceptions of sovereignty and territorial integrity as well as the very notion of the inviolability of international waters. Contemporary pirates stand on a par with terrorists, fraudsters, drug lords and organised crime bosses as did their historical ancestors.

In this article, we will discuss the general nature of piracy in the world; its current modes and trends in Nigeria and West Africa; and its impact on maritime activities in the region. Some light will also be shed on how West African piracy can affect countries and individuals in other parts of the world. This work presents a case study and analyses the reasons for piracy in West Africa as well as possible ways of combating piracy in the Gulf of Guinea.

The article is divided into three sections. To facilitate comprehension of contemporary maritime piracy, the first section describes the historical background of piracy. Then, we provide a definition of piracy through which its current incarnation in West Africa can be examined. The section concludes by looking at how and where piracy exists or has existed in the

Gulf of Guinea and in Nigeria. The second section explains the causes and consequences of piracy in Nigeria and the Gulf of Guinea. The causal factors are broken into: legal and jurisdictional weakness; favourable geography; conflict and disorder; underfunded law enforcement/ inadequate security; permissive political environment; cultural acceptability; and, promise of reward. The consequences of West African piracy manifest themselves locally as well as globally. The section ends with a short summary of the previously described conducive factors. Finally, the last section describes methods of combating piracy in the Gulf of Guinea. We explore military and non-military means currently employed to oppose piracy in West Africa, ending with some recommendations on key areas where efforts should be concentrated.

## Piracy in the past and present

The notion of a spiral progression of history is undoubtedly applicable to piracy as well. Having emerged thousands of years ago, it has evolved through surge and decline and reached the twenty-first century. Throughout time, venues and characters change, as do props, but there is a set of invariables always intrinsic to the crime. A closer examination of those invariables helps us to understand the essence of piracy and determine effective measures to defeat it.

## Historical perspective

The Latin word *pirata* is derived from *transire*, *a transeundo mare*, which signified a maritime knight or an admiral or commander at sea. *Pirata* means 'to attempt' or 'to attack'. Piracy denotes not just criminal plundering, but a seafaring way of life based upon violence.[1] A pirate is an outlaw that has moved his business to sea. Piracy is generally believed to have started when the first traders went to sea with ships filled with casks of wine and grain, while pirates ambushed them offshore.[2] Never since has the world been utterly free of piracy. It has diminished or relocated, but not disappeared.[3] Most maritime nations have at some point in time been plagued by piracy. The first records of piracy are records of a state's attempts to destroy them.[4]

In the Mediterranean there were Greek and Roman pirates, while the North Sea and Northern Atlantic Ocean were ruled by the Vikings from

Scandinavia. During the Roman Empire, pirates controlled the waters of important trading routes.[5] When Julius Caesar was captured by pirates, the first thing he did after being released for ransom was to assemble a squadron of ships to destroy the pirates. From the sixteenth to the nineteenth centuries, European countries extended their territories around the world. Due to the subsequent growth of maritime trade, piracy again became a real profession. Barbarossa (Redbeard), Edward Teach (Blackbeard) and Henry Morgan were real and ruthless pirates of that time, who centuries later morphed into almost likable fictional villains.[6] According to Donald Puchala, the only efficient method to eradicate pirates was to seek them out, hunt them down and forcefully destroy them together with their strongholds and safe havens, by a great power exerting firm sea control.[7]

Between 1970 and 1980, piracy revived as a serious threat to commercial shipping. This prompted the International Maritime Bureau (IMB) to set up piracy reports in 1981. During the following years, a growing number of cases were reported.[8] In a very short time, piracy changed from a peripheral annoyance to a crucial threat to world commerce.[9] In the past decade, the amount of pirate attacks has tripled. Piracy is still a violent, bloody and brutal business. Today's pirates are trained fighters and drugged teenagers aboard speedboats, equipped with satellite phones and global positioning systems, armed with automatic weapons and rocket propelled grenades.[10]

The face of piracy may be different but today's pirates are similar to their historical predecessors in that many are motivated by economic factors and encouraged by a lack of law enforcement.[11] The historical record gives context to the act of piracy and provides a set of invariables to help define the crime.

**Definitions of piracy**

The first legal definition of piracy was inscribed in Roman law. Pirates were *hostis humani generis*, enemies of the human race.[12] For over two millennia, pirates have had a unique status in the law as international criminals, not enemies of one state but of all states.[13] Yet, despite the centuries-long existence of the crime, there is no international consensus on a definition, which has aggravated the discussion on the subject and

constrained the international community's response.[14] While not politically motivated in itself, piracy has always been tied to the prevailing political situation and the manifestation of state power, or rather, state weakness. This connection means that common notions of piracy have rarely been applied uniformly or unambiguously. Activities that are regarded as piracy in one place at one time execute legitimate functions for states at others.[15] Therefore several different definitions of piracy – each with its own legal basis and adherents – are in use today.

Article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) defines piracy as consisting of the following acts:

> (a) Any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:
>   i. On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft.
>   ii. Against a ship, aircraft, persons or property in a place outside the jurisdiction of any State.
> (b) Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft.
> (c) Any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).[16]

This definition is inaccurate for three reasons. First, the greatest discrepancy between the historical concept and the UNCLOS definition lies in the geographical limitation that pirate attacks can only occur upon the high seas (see Figure 3).[17] Therefore any attack that takes place within the territorial waters of a state would not be considered as piracy but Armed Robbery at Sea.[18] Secondly, the definition specifies that the attack is carried out by another ship which not only eliminates attacks from any other vessels, but also fails to take into account land-based attacks against berthed ships and cases of internal hijacking by offenders posing as passengers or crew members. Thirdly, the provision that piracy is committed by a private crew for personal gain precludes acts that are state-sponsored or politically motivated. Thus the UNCLOS definition is too limited to comprehend the full range of contemporary piracy, largely due to the fact that three decades ago its drafters regarded piracy as an

obsolete eighteenth century phenomenon rather than a current and very real danger. [19] Such oversight produced a legislative act that neither defines an international crime on which prosecutions can be based nor is intended to vest countries with the necessary jurisdiction to enforce or to adjudicate.[20]

Nevertheless, the UNCLOS definition of piracy has been incorporated into international law and the International Maritime Organisation (IMO) has recognised and accepted this definition. Therefore, according to international law, an illegal act of violence or detention committed within a state's territorial waters is not piracy. It is only classified as piracy if that nation's penal code criminalises it as such. Unlawful acts of violence or detention or acts of depredation at anchor, off ports or when underway through a coastal state's territorial waters are defined by IMO as armed robbery against ships.[21]

In order to overcome the distinctions between piracy and armed robbery at sea, the IMB has combined the two terms in a single definition: 'An act of boarding or attempting to board any ship with the apparent intent to commit theft or any other crime and with the apparent intent or capability to use force in the furtherance of that act.'[22] The IMB definition avoids the distinction made by the UNCLOS that an act of piracy takes place only on the high seas; it draws an equal sign between piracy and armed robbery against ships, taking into account the purpose, not the place. For the purposes of this paper, the IMB definition is preferred, so the term piracy here encompasses acts of piracy as well as armed robbery unless otherwise specified.

## Piracy in the Gulf of Guinea and in Nigeria

The Gulf of Guinea is part of the Atlantic Ocean off the western African coast and is considered the geographic centre of the earth because it is zero degrees longitude and latitude.[23] Nigeria is located along the Gulf of Guinea. With a population of 150 million and a territory of 923,768 km², the Federal Republic of Nigeria is the largest country in West Africa. Its inhabitants make up fifty-seven per cent of West Africa's population, and about twenty-five of the total population of the continent.[24]

Nigeria has a coastline of about 853 kilometres long and shares maritime borders with Benin, Cameroon, Ghana, Equatorial Guinea and São Tomé

and Príncipe. The country's location on the shores of the oil-rich Gulf of Guinea, and the existence of major natural oil and gas sources in the Delta of Niger River, have turned the country into the fourteenth largest oil producer in the world extracting about 2.3 million barrels of crude oil per day, and the richest country in the region.[25] Nigeria has a key role concerning security, stability, development and integration in West Africa.[26]

Regrettably, Nigeria also ranks amongst the world's weakest states and is unable to deal with many social, political and economic problems. The country is tormented by violent internal conflict, lawlessness and societal deterioration which are most evident in the southern waterways of the Niger River Delta.[27] The decline of the Delta region is a complex scenario but derives from the government-sanctioned pumping of oil by foreign companies.[28] It has led to widespread corruption whereby little oil revenue actually benefits the inhabitants of the Delta, who instead suffer the hazardous by-products of modern oil extraction techniques such as oil spills and gas flaring.[29] All in all, the problems of the Delta region are systemic, including mismanagement, corruption, poverty and unemployment,[30] all of which contribute to an environment inconducive to stability and prosperity.[31]

Maritime piracy in West Africa occurs mainly in the resource rich Niger Delta and is directly linked to oil production.[32] It has prospered over the last decade primarily under the umbrella of a violent campaign by militants.[33] Their fight against the Nigerian government, allegedly addressing political injustices and social grievances, has undermined the state's authority in the Niger River Delta. Piracy, in turn, benefits from the general lawlessness and the call by militants to target vessels and oil platforms of the international oil companies.[34] The proliferation of small arms combined with deprived seafaring communities with long-unaddressed grievances against both the government and the multi-national oil companies generates favourable conditions for piracy.[35] Some pirates claim to be fighting for a fairer distribution of Nigeria's oil wealth, and as a protest against the damage caused by oil production in the Delta.[36]

Piracy in Nigeria is committed by two different types of pirates – the opportunists and the organised, though at times their *modus operandi*

overlaps. Opportunistic pirates are usually driven by poverty and temptation. They sometimes work as dockers, fishermen or even security guards, but are intermittently unemployed. Even if employed, they frequently supplement low incomes by pirating or aiding pirates. Opportunist piracy is not as much a way of life as a crime of opportunity.[37]

However, the majority of Nigerian piracy is organised crime. These pirates are a diverse network of groups of young men, mostly ethnic Ijaws, loosely associated with different militant groups with pretentious names like the Egbesu Boys of Africa; the Niger Delta Vigilante; the Niger Delta People's Volunteer Force; and the most prominent, the Movement for the Emancipation of the Niger Delta (MEND).[38] They form well-organised and well-funded gangs that carry out attacks against vessels on the high seas as well as in territorial waters, and have at their disposal modern weapons, speed boats, advanced means of communications and boarding equipment. Organised pirates always map out their actions and choose their targets carefully.[39]

The Gulf of Guinea is one of the most pirate-infested waters in the world and piracy has become the most urgent security threat to the maritime environment. However, it has received less attention than the more notorious waters on the other side of Africa, namely the Gulf of Aden.[40] The latest annual report of IMB shows that during the past five-year period, from January 2007 until December 2011, 252 reported pirate attacks took place in West Africa, an overwhelming 140 of them off the coast of Nigeria. And while Nigerian attacks have decreased from 42 in 2007 to 10 in 2011, it is highly likely that Nigerian piracy has extended into the waters of neighbouring Benin, which has witnessed a sudden upsurge of reported attacks from almost none in the previous years to 20 in 2011, which is nearly half of the total of 49 attacks in West Africa.[41] However, IMB is aware of at least 34 more Nigerian incidents in 2011 that have gone unreported and this continues to be a cause of concern.[42] Peter Swift, the Head of the International Association of Independent Tanker Owners (INTERTANKO) has cautioned: 'the number of officially reported incidents may be doubled to give a more realistic picture of what is happening in this area.'[43]
Compared to piracy in the Gulf of Aden, vessels and crews hijacked in the Gulf of Guinea are held captive for considerably shorter periods – 10 days

*versus* 6 months,[44] which is explicable by the focus set on robbing cargo and valuables in the Gulf of Guinea *vis-à-vis* taking hostages and demanding ransom in the Gulf of Aden.[45] However, Nigerian pirates tend to be a lot more violent than their Somali confrères, because their minds are set on a quick profit, meaning they care less for the well-being of their victims whom they intend to ask no ransom for.[46] Peter Swift also stated that the international tanker shipping industry was:

> very seriously concerned by the on-going violent attacks in the Gulf of Guinea against innocent merchant ships by armed pirates operating out of a network of more than 3,000 creeks in Nigeria alone, and also by the apparent inability of the national and regional governments to protect shipping from these attacks.[47]

## Causes and consequences of piracy in the Gulf of Guinea

Before suggesting any solutions, whether military or non-military, for combating piracy, it is important to understand the reasons that trigger the emergence of the crime and the factors that support its existence.

## Reasons and favourable factors for piracy

The circumstances that give rise to piracy are complex and multi-faceted. There is no conclusive and universally acknowledged list of factors that foster piracy. However, Martin Murphy has proposed seven major factors: legal and jurisdictional weakness; favourable geography; conflict and disorder; underfunded law enforcement / inadequate security; permissive political environments; cultural acceptability; and promise of reward.[48] The emergence of piracy does not always require the presence of each of the seven factors, but the more factors there are, the more rewarding and the less risky is the business of piracy for its practitioners.[49] In places like Nigeria where all seven factors exist to a greater or lesser extent, it provides a fertile environment for piracy.

## Legal and jurisdictional weakness

The accepted international definition of piracy is provided in Article 101 of the 1982 UNCLOS. However, it has a number of drawbacks, the most significant being a jurisdictional loophole of limiting piracy to an act that can only occur upon the high seas. With that restriction, the Article binds the legal actions of international law enforcement and pirates are well aware of that. They operate just outside territorial waters and, when in danger of being captured by international law enforcement, can quickly cross the safe line onto waters where they are only subject to apprehension by local law enforcement. In Nigeria, it mostly means that pirates get away.[50]

The 1992 Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation was an effort to provide a uniform method to solve politically motivated violence at sea which could also be applied to piracy. It prescribes that the ratified states either prosecute or extradite suspects. The drawback is that the Convention can only be invoked when violence is sufficient to jeopardise maritime safety. Though Nigeria ratified the Convention in 2004, it is having trouble with consistent enforcement.[51]

## Favourable geography

Piracy can only exist in places that offer a combination of advantageous hunting grounds, reasonable risk levels and nearby hideaways. Stationary vessels are ideal targets. Attacks on moving ships usually occur in the narrow seas, but the best places are straits, bays, estuaries and archipelagos, where, due to navigational or commercial reasons, vessels are forced to sail slower and close to the coast. Slow-moving ships are also easier to board and less likely to take evasive action.[52]

Nigeria ranks among the largest oil exporters in the world, the majority of the valuable resource being produced inside the Niger Delta and pumped to stations at the mouths of navigable rivers such as the Bonny Inshore Terminal in River State and the Forcados Oil Terminal in Delta State or further offshore. In order to transport that oil, tankers as well as supply ships and tugboats must come close to the Nigerian coast and sail in constrained waters, which makes them prime targets for pirates.[53] The

extensive, mazy and mostly ungoverned network of creeks and waterways is a suitable setting for pirates and other criminal gangs.[54] The prospect of making oil terminals more secure by moving them further offshore is thwarted by pirates attacking in deep water.[55]

## Conflict and disorder

Piracy is a symptom of conflict and disorder that usually thrives in regions that have either a weak or a non-existent governing authority. In such places, anarchy and predation proliferate and create a breeding ground for a wide scale of criminal activities including piracy. For example, as a result of the collapse of Somalia's central government in the civil war of the 1990s, coastal areas remained ungoverned and provided favourable conditions for the rise of piracy in the Gulf of Aden. Likewise, piracy in the Gulf of Guinea is partly an outcome of the decades-long insurgency in the Niger Delta.[56] Militants first raised their heads in 1966 when ethnic Ijaws declared the independence of the resource-rich but poverty-stricken Niger Delta region, Biafra. The armed revolt was ruthlessly suppressed but the quest for 'resource control' has since been the focus of an enduring conflict between the government, the population of the Delta and the militants.[57]

In recent times, MEND has been the largest and most powerful militant faction allegedly fighting against environmental degradation, oil profiteering and state neglect. Since the beginning of 2006 the group has been conducting a sporadic campaign against the Nigerian government. Throughout the conflict, MEND has declared that all government facilities as well as the personnel, infrastructure, aircraft and vessels of foreign oil companies are subject to attack. The decentralised nature of the militants favours pirates who use the cloak of insurgency to cover their predations.[58]

Furthermore, the internal strife has bequeathed the Niger Delta thousands of young veterans who are proficient in the use of firearms and as such potential recruits for piracy. Combined with the high level of youth unemployment, it promotes the perception of crime as a career option.[59]

## Underfunded law enforcement / inadequate security

Nigeria is a prime example of underfunded and inadequate security. The failure to fund and train coast guards, navies and police has created a situation where the readiness of the Nigerian Navy (NN) is low,[60] the coast guard is ineffective and the vast network of river transportation routes is poorly policed,[61] all of which contributes to the opportunity for pirates to operate freely.[62]

In order to be effective, maritime law enforcement requires a substantial number of vessels equipped with radars and communications gear and crewed by reliable and trained personnel. Likewise, shore-based command and control and maritime aerial surveillance capability are imperative. However, poor nations cannot afford the specialised equipment and personnel in quantities necessary to combat piracy efficiently. Experts estimate that the development of forces capable to deter piracy would cost Nigeria US$100 million.[63]

However, diversion of funding and resources to other priorities weakens security, encourages corruption and provides criminals with weaknesses to exploit. For example, in Somalia, the lack of security initially compelled local fisherman to protect their territorial waters from illegal fishing and vessels dumping waste. Over time, actions taken by fisherman to protect their territorial waters evolved into a financial enterprise for warlords who demanded ransom for the return of vessels and their crews.[64]

## Permissive political environments

A permissive political environment is a result of corruption among governing authorities.[65] Incapable governments encourage inadequate law enforcement and allocate far too few resources to combat piracy. This increases crime and draws attention to areas with insufficient security and abundant targets, also threatening the stability of surrounding countries.[66] In Nigeria, corruption is widespread from top to bottom. At the highest levels of government, corruption is impelled by the fact that oil accounts for about eighty per cent of Nigeria's state revenue. Billions of oil revenue dollars disappear from the Niger Delta states governors' offices. Without money for development, the impoverished people of the Delta feel

exploited and marginalised by the state and turn to piracy to provide for themselves.[67]

At lower levels are unscrupulous police officers, members of the military, local politicians and port officials who have a direct role in piracy. Police officers prefer taking bribes to enforcing the laws, security guards and military members employed to protect vessels and oil terminals vanish just before a pirate attack or respond inadequately, port officials receive stolen goods as a part of the profits, and politicians ensure that the necessary people are bribed to ignore the goings-on. Payoff is hard to substantiate and measure, but experts agree that organised pirates, such as those in the Niger Delta, have the benefit of the protection of corrupt public officials.[68]

## Cultural acceptability

Piracy is most likely to take root in areas that have a maritime tradition. Martin Murphy suggests that regions with established trading patterns, such as South-East Asia and West Africa, are more likely to resort to piracy because of cultural reasons handed down from generation to generation.[69]

In the late nineteenth century, ethnic Ijaws in the western Niger Delta were pirates. They had turned to piracy out of jealousy towards the prosperity the neighbouring Itsekiri people had gained from trade arrangements with the British and Urhobo clan. Although Nigeria does not have a true culture of piracy, the crime enjoys social acceptance amongst the riverine communities of the Niger Delta. Some traditional fishing communities whose economic activities have been affected by oil pollution and the subsequent diminishing of fish stocks have resorted to piracy to provide subsistence. Other communities operate as intermediaries of stolen goods or ports where pirates can rest and replenish. Piracy in Nigeria has won the approval of the marginalised Delta population thanks to the money it brings into the regional economy.[70]

## Promise of reward

Piracy is a lucrative venture, especially in economically depressed regions such as the Niger Delta.[71] When poverty prevails, people turn to piracy as a way to get by.[72] As stated above, a high level of unemployment leads to crime being perceived as a career option, particularly in destitute communities where pirates stand out as paragons of wealth, conspicuous consumption and ultimately as 'role models' to impressionable youngsters,[73] who prefer getting rich quickly to the tedium of patient effort and hard work.[74]

Hijacked vessels are often plundered of anything that is valuable and can be easily carried off. Well-organized pirates can steal the entire cargo and sell it. Sometimes the ships vanish altogether, as in 2004 when two tankers carrying 30,000 barrels of oil disappeared from under the control of the Nigerian Navy. One ship was later discovered near Port Harcourt, wearing a new coat of paint and presumably used to smuggle oil stolen from pipelines, which is another method of profit, often referred to as 'oil bunkering'.[75]

## Consequences

Piracy poses a threat not only as a regional nuisance, but also as a menacing influence to the global economy. The impact of piracy on the oil industry of the Niger Delta can affect the very volatile fuel market sensitive to the fluctuation of supply and demand. Rising fuel costs rope in all other prices and thus affect virtually every individual on the earth who buys anything the production or transport of which requires petroleum products.[76]

Piracy also has a detrimental effect on the security of merchant shipping, and thereby on the global trade as a whole. The voyage costs rise, as ship-owners face higher insurance premiums, extra risk payments to seamen, the costs of protective measures[77] and sometimes even the need to reroute ships.[78] Countries where shipping companies are incorporated are anxious to show that the latter will be protected, so society also pays for this in the form of tax money spent on the protection of merchant ships and additional war risk charges introduced to customers.[79]

On a local level, the sector most seriously disrupted by piracy is the fishing industry.[80] From 2003 to 2008 the Nigerian Maritime Security Task Force documented 293 pirate attacks on fishing vessels alone.[81] The latest trend of pirates is to hijack fishing trawlers and due to their longer fuel range use them as makeshift bases for approaching, assaulting and emptying oil tankers.[82] According to John Overo, the President of the Nigeria Trawler Owners Association, pirates have forced the Nigerian fishermen to scale down their activities.[83] That translates into redundant jobs and increasing unemployment. In a way, piracy and unemployment form a closed circle, simultaneously serving as each other's cause and consequence.

## Summary

Piracy is evoked and supported by several, often intertwined causes and factors. First and foremost, the crime is motivated by financial gain. Easy and relatively low-risk profit-making, especially when the alternative is utmost poverty, is a strong incentive for people to turn to piracy as a way to survive. Furthermore, prolonged conflict and disorder combined with weak security provide a perfect scene for acts of piracy, thus illustrating the ancient proverb: 'It is good fishing in troubled waters.'[84] The crime also benefits from suitable geography and busy seaways. When passing straits or islands, ships have to reduce speed and become 'sitting ducks' for pirates who take advantage of the hide-outs provided by maze-like waterways. But piracy cannot exist solely on water; it needs assistance from ashore – information about passing vessels, their cargoes and crews; safe anchorages for their own and hijacked ships; receivers and buyers of plunder. All this can only be achieved under the protection of permissive political, legal and cultural circumstances.

However, those that suffer from piracy are not without blame themselves. The willingness of shippers to bear the costs of piracy rather than pay higher insurance premiums and tendency to man vessels with smaller crews as a cost-saving measure[85] are 'water to the delinquent mill', as well as the reluctance of shipping companies to report pirate attacks out of desire to avoid negative attention and growing insurance costs.[86] In addition, pirates can tender their thanks to the advancement of modern technology, which, on one hand, while making the attacked ships operable by reduced crews, also diminishes their self-defence abilities, and on the other hand, improves the pirates' weapons of speed, shock, surprise, fire

power and rapid escape, as well as providing easier access to information about shipping plans and routes.[87]

## Methods of combatting piracy in the Gulf of Guinea

Although piracy has long been regarded as an enemy of humanity – *hostis humani generis* – humanity has never been able to respond collectively.[88] Sporadic and scattered campaigns might as well be compared with attempts to slay the mythical dragon that grows two heads for each one chopped off. That is why it is imperative to apply a holistic approach that would not only intensify maritime security, but also address the primary causes of piracy, rooted deeply in the political, economic and social conditions, including bad government, unemployment, poverty and lack of opportunities for young people. Furthermore, there is an indisputable requirement for cooperation, regional as well as international. Spatially restricted activities simply drive piracy to another area, as has been the case with Nigeria and Benin. Moreover, the resources, whether financial, legislative, technical or knowledge-based, needed for successful riddance are far beyond the capabilities of a single country. A comprehensive strategy must also include lessons learned from other regions that wrestle with the same problem.

Fortunately, there is a growing awareness of the need for comprehensiveness and cooperation. Local counter-piracy efforts are supported by the actions of major powers like the United States and China, as well as several European countries both individually and through the European Union; and major organisations such as the United Nations and NATO have also lent a hand. The result is an assortment of military and non-military activities, presenting each of which is beyond the scope of this article. Thus, the author has chosen to focus on only a few of them and do it through introducing some of the key agents engaged in the fight against piracy in the Gulf of Guinea.

## Military means of opposing piracy

As mentioned in the first section, the only effective method of suppressing pirates used to be point-blank eradication through military intervention. In the twenty-first century, such inhuman annihilation would

be inconceivable. Modern society has to come up with less violent ways of employing military forces in the fight against piracy.

It is universally acknowledged that the maritime security forces of the Gulf of Guinea states, individually as well as collectively, lack the funding, vessels, training and discipline,[89] as well as unity and cohesion necessary for providing viable surveillance and security in their waters. Some progress can be achieved through joint operations and cooperation between the naval forces of the neighbouring states,[90] but the importance of international assistance, whether through funding, training or actual military presence cannot be denied.[91]

In this respect, West African countries have the most active partnership with the United States, whose initiatives are further below described in more detail. Likewise, recognising the importance of energetic security and safety of maritime trade routes in its new strategic concept,[92] NATO is also taking steps toward establishing a more robust operation off the Gulf of Guinea in order to preclude the possibility of an energy supply crisis resulting from pirate attacks on oil tankers and platforms.[93]

**Nigerian Military Forces**

The Nigerian Navy, with about 18,000 personnel, is the region's largest naval force.[94] Although Nigerian as well as foreign naval security experts agree that the Nigerian Navy suffers from 'low level of troops…and their obsolete equipment',[95] has 'assets that are so degraded that a majority of its vessels larger than open patrol boats are listed as…"serviceability in doubt"'[96] and is 'not ready to offer a credible maritime deterrent', there certainly is good will and determination, and steps, though tiny, are being taken towards achieving the ability to maintain law and order in the nation's territorial waters. Pressure to do so originates from the highest levels of the Nigerian government.[97] One of the latest projects was the deployment of a joint Nigerian-Beninese patrol mission in October 2011. The unit consisting of three warships, five support vessels, two 'Defender' boats and helicopters – with the lion's share contributed by Nigeria – patrols the waterways of both countries up to their Exclusive Economic Zone boundaries initially for the period of six months.[98]

Another cooperative initiative, the Joint Military Task Force (JMFT), also known as 'Operation Restore Hope' is composed of personnel originating from the Nigerian Army, Navy, Air Force, Police and State Security Service, and was deployed to the Niger Delta in May 2009[99] with a mission to suppress the MEND militants domineering in the region and inflicting serious damage on local oil industry.[100] Regrettably, the opposition mushroomed into an 'all-out war', where MEND reportedly attacked JMFT troops[101] and JMFT was accused of indiscriminate killing of insurgents and civilians and destruction of property.[102] Officials asserted that JMFT was only targeting criminals and raiding the militants' hideouts and arms dumps in an effort to secure the region, yet thousands of panic-stricken inhabitants fled their homes.[103] Nevertheless, in 2011, a Presidential Special Assistant maintained that JMTF 'has continued to minimize incidents of piracy in the Niger Delta region through its relentless vigilance.'[104]

A joint security effort still in the draft stage is the Gulf of Guinea Guard Force (GGGF). Initiated by the President of Nigeria and approved by the eight member states of Gulf of Guinea Commission, GGGF is envisioned as a joint regional naval force set up and trained with the assistance of the United States with the view of ensuring security in the Gulf of Guinea region, particularly for offshore oil facilities. Regrettably, planning and negotiations have progressed slower than desired.[105]

**United States Africa Command**

The United States' interest in the Gulf of Guinea grew notably, when it aimed to diversify American energy supplies in order to decrease the country's dependence on Middle Eastern oil.[106] It is estimated that by 2015, a quarter of the United States' oil supply will come from the Gulf of Guinea.[107] Since the Niger Delta has the largest oil reserves in the region, the Americans are determined to secure control over the sources of supply to the global market.[108] A senior official in the Department of Defence allegedly stated in 2003 that 'a key mission for US forces in Africa would be to ensure that Nigeria's oil fields…are secure.'[109]

In February 2007, the establishment of a new Armed Forces' combatant command, United States Africa Command (AFRICOM) was announced.[110] The aim of AFRICOM is to protect and defend American

security interests in Africa and its surrounding waters by reinforcing the defence capabilities of African states and organisations. AFRICOM also conducts military operations in order to combat transnational threats and create a security environment promoting good government and development.[111]

Together with other American government institutions, AFRICOM participates in organising ministerial conferences on maritime security for West African governments. It is also helping to raise the capability of African navies to monitor and enforce maritime laws. For example, in the framework of the African Maritime Law Enforcement Partnership, African law enforcement detachments are included in boarding, search, seizure and arrest operations carried out from aboard American or host nation vessels in African waters.[112] In addition, AFRICOM conducts annual training exercises and is in charge of implementing several major multilateral security assistance programmes[113] such as African Partnership Station – an international initiative under which a designated ship moves from port to port, functioning as a mobile university and offering African navies and coast guards specific training in a broad range of areas including maritime domain awareness, maritime law enforcement, search and rescue, medical readiness.[114] Other programmes include International Military Education and Training, providing grants for foreign military personnel to attend American military schools; and Foreign Military Financing, providing funds for the acquisition of American military equipment, services and training.[115]

## Non-military means to oppose piracy

While cooperative military efforts endeavour towards putting an end to pirate acts at sea, they have virtually no effect on the root causes of piracy tied up ashore, among them unemployment, poverty and corruption, which, in turn, are consequences of poor socio-economic conditions in the Niger Delta. Tackling these problems is first and foremost the responsibility of the Nigerian government. However, since piracy in a corner of an ocean may potentially have a global domino effect, major international organisations like the United Nations have made it their priority to counter piracy. A multidisciplinary assessment mission deployed by the Secretary-General to West Africa in November 2011 examined the scope of the threat of piracy in the region and came up with

an extensive list of recommendations for regional stakeholders as well as the international community in areas of security, funding, logistical support, legislation, law enforcement, information-sharing, education, training, and above all, cooperation.[116] Another agency of the United Nations, the Office on Drugs and Crime has developed a Regional Programme for West Africa, 2010-2014, which, among many other concerns also focuses on piracy and corruption, and vows to engage in 'the design of adequate and effective counter-piracy initiatives where both legal and enforcement aspects are taken into account.'[117]

## Nigerian government

In addition to military counter-piracy efforts channelled through the Nigerian Navy, the JMFT and, hopefully the GGGF, the Nigerian government is attempting to address the root causes behind piracy – the political, social and economic shortcomings in the Niger Delta region.[118] Security, law and order; combating corruption and Niger Delta development were three of the seven areas in the former President Yar'adua's improvement agenda of 2007, and are also included in 'Vision 2020', a governmental development plan aimed at raising Nigeria among the world's twenty strongest economies by 2020.[119] The Presidential Assistant on Maritime Services, Oyewole Olugbenga Leke, pointed out in his speech delivered in London in August 2011 that the following steps have already been taken:

1. Establishment of the Niger Delta Development Commission in 2000 and the Ministry of Niger Delta Affairs in 2008,[120] targeted towards the sustainable and comprehensive development of the Delta into an 'economically prosperous, socially stable, ecologically regenerative and politically peaceful' region. Among many other areas, special attention is being paid to education and youth employment issues as well as social welfare, conflict prevention and governance and capacity development.[121]

2. Designation of mandatory secured Lightering Zones in all the pilotage districts, evasion of which is punishable.

3. Compulsory registration of all small vessels capable of carrying people or goods for easy identification by security patrols.

4.  Removal from the Nigerian waters of wrecks serving as hideouts for pirates, their loots and weapons.

5.  Review of local maritime laws to provide deterrent measures against offences, including piracy.[122]

In addition, the Economic and Financial Crimes Commission was ordered to find out the motives behind recourse to piracy in the Niger Delta crisis, investigating and auditing state governors' assets throughout Nigeria to fight government corruption.[123]

In 2009, the government declared an amnesty programme for the young Delta militants ready to trade in their rebelliousness for rehabilitation, vocational training and a monthly allowance. MEND and other militants groups initially agreed to the programme and declared a ceasefire, which they renounced in 2010 under the pretext of doubting whether the government would hand the control of the region's natural resources over to the local population[124] and out of disappointment that the government's promised post-amnesty initiatives had produced meagre results.[125] The programme has also been criticised for not seeking permanent solutions[126] nor addressing the acute youth unemployment problem.[127] Nevertheless, it is regarded as one of the most successful disarmament, demobilisation and reintegration programmes, with no shots fired and no lives lost.[128] What is more, the elimination of piracy from the Lagos pilotage district is, besides the Nigerian Navy, largely attributed to ex-militants trained as safety and security officers.[129]

The most recent welfare-orientated undertaking by the Nigerian government was the abrupt removal of fuel subsidies from the 1st January 2012 with a view to gaining resources, an estimated US$8 billion a year, for improving, among others, infrastructure, educational and health care systems.[130] Although experts and multinational organisations, including the International Monetary Fund have long approved of such shock-therapy,[131] this has doubled petrol prices and enraged Nigerians. They use substantial amounts of fuel in their daily life and regard its cheapness as the only benefit they get from the country's oil wealth, and fear that money saved from the abolished subsidy will find its way into the pockets of corrupt officials.[132] The ensuing strikes and protests virtually paralysed

Nigeria for more than a week and eventually the government was forced to back down and restore the subsidies.[133]

In the light of those two cases it seems that the Nigerian government is endeavouring to carry out its good intentions, but it is not easy to help those that refuse to be helped.

## Maritime private security companies

The inability of maritime nations to deter piracy effectively has created a market for private security companies (PSCs).[134] Although it may be argued that the activities of PSCs are of military rather than non-military nature, the decision to describe them in this subsection is based not on their functions but their status as not a part of a country's armed forces. Services offered by PSCs range from advice and training to active on-board defence, escort protection, hostage release and maritime capacity building.[135] While many find the idea of employing armed private security forces on board unacceptable, it has become not only a viable option, but a necessity for shipping companies seeking to avoid the threats posed by pirates to their vessels, crews and cargo.[136] The opponents argue that the use of PSCs interferes with the current understanding of maritime roles and responsibilities – provision of safe passage for oceanic trade has always been a duty of sovereign states.[137] There are also a number of jurisdictional and practical issues concerning the presence and actions of armed private contractors aboard a flag state's vessel in the waters of a third nation.[138] On the other hand, PSCs offer several advantages not only to shipping and insurance companies, but also maritime states, including avoidance of loss of life and property, reduction of insurance premiums, reinforcement of regional stability and possibly even reduction of consumer prices resulting from the global decrease of piracy. The fact is that private navies are on the rise, expanding their operations and entering into contracts with major shipping companies, and the international community should cooperatively reach an acceptable compromise on the regulation of PSCs.[139]

## Conclusions and recommendations

As the analysis revealed, contemporary maritime piracy is a serious issue, a profitable and brutal business that has outgrown from a local menace into

a grave threat to global trade and international security. The Gulf of Guinea in West Africa, which has gained global importance for its vast oil deposits, has also become one of the most pirate-infested waters in the world. In 2011, eleven per cent of all the reported piratical incidents occurred off the coast of West African countries. Local governments, as well as developed society in other continents and major organisations have begun to grasp the scope of the problem and several initiatives have already been launched to confront the scourge. So far, it has not been enough.

In this concluding section we answer three important questions. Firstly, is West African piracy something an ordinary citizen in a developed country should worry about? Secondly, are unstable political and insufficient socio-economic conditions the causes of piracy in West Africa? Thirdly, is military and non-military interference needed to stop piracy in West Africa?

From our analysis, in answer to the first question, we can conclude that an ordinary citizen in a developed country should worry about piracy in the Gulf of Guinea. By having a detrimental impact on the local industry and maritime security in the Gulf of Guinea, piracy can influence the everyday life of ordinary and unsuspecting citizens thousands of miles away. To argue that piracy is a distant and marginal problem, which we need have no concern with, is both short-sighted and mistaken, because, aside from the moral duty of any ordinary citizen to condemn any criminal behaviour in any part of the world, piracy can have a direct impact on our wallets. When shipping companies pay higher insurance premiums, raise the sailors' salaries for extra risks involved or reroute ships to avoid pirate-infested waters, it elevates the cost of goods they transport, and the market for these goods is largely made up of ordinary citizens in developed countries. When oil platforms are attacked or tankers hijacked with intent to steal the oil, it unsettles the delicate balance between supply and demand in the global fuel market, which in turn has an almost immediate effect on the prices of our daily consumables. Hence, an ordinary citizen in a developed country should be concerned about piracy. The very first definition of piracy was *hostis humani generis*, or enemy of mankind, and it is the obligation of the entire human race to confront the common adversary.

The answer to the second question – whether unstable political and insufficient socio-economic conditions are the causes of piracy in West Africa – is also affirmative. Seven conducive factors – legal and jurisdictional weakness; favourable geography; conflict and disorder; underfunded law enforcement and inadequate security; permissive political environment; cultural acceptability and promise of reward – are present in Nigeria, the hotbed of the region's piracy. With the exception of favourable geography, making changes to which is beyond the limits of human performance, they are all offshoots of political, economic and social inadequacies, and connections between each of them and piracy are easily traceable.

The answer to the third question – whether military and non-military interference is needed to stop piracy in West Africa – is also affirmative. A range of military and non-military activities, which seek to terminate piracy in the Gulf of Guinea, have been tried and are on-going. Although still insufficient, they certainly contribute to the alleviation of the problem. The alternative to interfering would be sitting idly by and waiting for piracy to die a natural death. Yet, as history has shown, this is a very unlikely prospect, since past outbreaks of piracy have only been suppressed by military intervention. In contemporary human society, mere subdual by force no longer suffices, because in case of a failure to eliminate its root causes, piracy will soon resurface. That is why it is important to adopt a holistic approach and deal with both, causes and consequences in a cooperative and coordinated manner.

Indeed, there are a countless number of stakeholders striving to suppress piracy in the Gulf of Guinea – or at least claiming to do so. Yet, as of the 21st February 2012, already nine pirate incidents had occurred in the Gulf of Guinea, with the latest on the 13th February just off Lagos with two casualties among the crew.[140] Amounting to an average of roughly 1.5 attacks a week, it gives reason to say that thus far the anti-piracy efforts have not been sufficient. Fully comprehending the complexity of the fight against piracy, three key areas require further concentration from the major anti-pirate actors.

**Combined Task Force**
As one possible military counter-piracy measure, the Gulf of Guinea's nations together with international partners could establish a combined

task force similar to the multinational naval coalition successfully operating in the Gulf of Aden.[141] Increased presence of military and law enforcement vessels would reinforce regional security by confronting individual acts of piracy.

## Coordinated cooperation

Since no country or organisation has the resources to put an end to piracy single-handedly, emphasis should be put on consistent and all-encompassing cooperation – regional, continental, international, but also between agencies, organisations, branches and sectors. In order to avoid gaps and overlaps, cooperation should be supervised to the maximum possible degree by an impartial, yet capable institution, perhaps the United Nations.

## International assistance

Piracy has its roots deep in the economic, social and political conditions of the region, while it flourishes over the waters of the Gulf of Guinea. Since local initiatives have not been able to axe either of them terminally, they clearly need outside help. Financial and material aid is indispensable, but even more important is training, counselling, experience-sharing, setting good examples – these constitute the proverbial teaching of a man to fish instead of giving him a fish.

To sum up, the author returns to the image of piracy as a diehard plant. Its root causes draw nutrients from the fertile soil of political, social and economic shortcomings, while its boughs sprawl far over the world sea. Military measures of combating piracy mostly deal with the consequences, whereas non-military ways must address the core reasons. However, it is the coordinated and cooperative efforts from both that are needed to extirpate the vicious weed.

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# Notes