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IRREGULAR WARFARE AS A NATIONAL MILITARY STRATEGY APPROACH FOR SMALL STATES

by

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Today, the Western way of war is mainly based on conventional strategies and organizations, with a sense of a Clausewitzian view of war: achieving victory by defeating the opponent's army. Small states have been copying the larger nations way of planning for war, with limited analysis of to whether this is the most effective strategy for them.

Analyses of large numbers of historical cases show that a conventional approach is a road to defeat for small states when facing larger conventional opponents. Another solution might be to change the national strategy to an irregular one. The intention of this thesis is to illuminate the potential for small states to improve the effect of their military by adopting an irregular strategy. The thesis is based on analyses of the works of recognized military thinkers, as well as three distinct historical cases. Based on the irregular strategy, the authors have described irregular tactics, organizational principles, and enabling technology.

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IRREGULAR WARFARE AS A NATIONAL MILITARY STRATEGY APPROACH FOR SMALL STATES

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LIST OF ACRONYMS AND ABBREVIATIONS

2IC	Second-In-Command
4GW	Fourth Generation Warfare
ATV	All-Terrain Vehicles
C2	Command and Control
CIA	Central Intelligence Agency
COIN	Counter Insurgency
COTS	Commercial Off-The-Shelf
EU	European Union
GDP	Gross Domestic Product
GWOT	Global War On Terror
GWS	Guerrilla Warfare Strategy
IED	Improvised Explosive Device
IO	Information Operations
IW	Irregular Warfare
JTAC	Joint Tactical Air Controller
LTD	Laser Target Designator
NATO	North Atlantic Treaty Organization
NLDO	Non-Linear Dispersed Operation
NVA	Non-Violence Actions
OODA	Observe, Orient, Decide, Act
OPSEC	Operational Security
PSYWAR	Psychological Warfare
RPG	Rocket-Propelled Grenades
ROE	Rules Of Engagement
SOF	Special Operations Forces
TOE	Table of Organization and Equipment
UAV	Unmanned Aerial Vehicle
WMD	Weapons of Mass Destruction

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Learning how to think is a process not usually taught in military conventional education. During our time at Naval Postgraduate School and the Defense Analysis Department curriculum 699, we were taught how to think critically and creatively. This thesis is the result of such a thought process.

The thesis is also a product based on the broad approach in the curriculum. To mix irregular warfare and the impact of the present information age, in combination with different approaches to networks and strategic design, has been a key for “success.”

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I. INTRODUCTION

A. THE NATURE OF THE QUESTION

1. The Western Way of War – The Small State's Dilemma

Today, the Western way of war is mainly based on conventional strategies and organizations, driven foremost by the United States and NATO,[1] with a sense of a Clausewitzian view of war: achieving victory by defeating the opponent's army. Small states have been copying the larger nations way of planning for war, with limited analysis of to whether this is the most effective strategy for them.

Several small countries, including Norway, Sweden, Denmark, as well as other European countries, employ national strategies based on a direct approach: defending against a conventional force, by conventional means. Using Liddell Hart´s and Beaufre's strategic theories, the nations' chosen strategies seem to be more a matter of "conventional fashion" than fit, thereby risking military disaster in the event of conventional aggression from a larger state.[2] In addition to the strategic analysis, common logic dictates that meeting a significantly more powerful opponent on the battlefield with the same general organization and tactics will lead to defeat.

In the coming analysis, we will use Arreguín-Toft's definition of a small state: the weaker party to an asymmetric conflict, i.e., a conflict in "which one side is possessed with overwhelming power with respect to its adversary."[3] We will assume that such states are defensive and conservative from the perspective

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[1] North Atlantic Treaty Organization.

[2] B.H. Liddell Hart, *Strategy*. (New York: Meridian Printing, 1991); and André Beaufre, *An Introduction to Strategy: With Particular Reference to Problems of Defense, Politics, Economics, and Diplomacy in the Nuclear Age* (New York: Praeger: 1965).

[3] Ivan Arreguín-Toft, *How the Weak Wins Wars: A Theory of Asymmetric Conflict* (New York:Cambridge University Press, 2005), xi.

that these states have no strategic offensive intentions, and are focused on preserving national integrity and sovereignty.[4] This does not exclude offensive operations, but means that offensive operations will be conducted as adjuncts to a defensive strategy.

So what are the options available to a small state in terms of national military strategy? There are generally four approaches, according to Sandor Fabian:[5]

- Imitating major powers (conventional military approach)
- Joining alliances
- Assuming neutrality
- Acquiring weapons of mass destruction

Even though the use of conventional forces and strategy has been sometimes successful when employed against equal or inferior opponents,[6] there are few known examples of them being effective against an overwhelming opponent.[7] This is the scenario and context when small states imitating major powers are faced with an external threat from a larger nation.

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[4] See Liddell Hart, *Strategy*, 355.

[5] Sandor Fabian, *Professional Irregular Defense Forces: The Other Side of COIN* (Master's thesis, Monterey, California: Naval Postgraduate School, 2012), 18–26

[6] One example of successful conventional strategy being used against an inferior enemy is the U.S. invasion in Iraq in 1991. Another example is the German invasion of France in 1940. In the case of the French, they were not significantly inferior in pure numbers (the French had more tanks), but their strategy was clearly inferior to the German Blitzkrieg.

[7] Herodotus, *The History of Herodotus*, George Rawlinson, trans. vol. 4 (New York: D. Appleman and Company, 1885). Accessed March 19, 2013, http://www.shsu.edu /~his_ncp/Herother.html.

Although such cases are far between, some do exist. One historical case where a smaller force made significant impact is the battle of Thermopylae in 480 B.C., where some 3,500 Greeks held their ground —a narrow mountain pass—for seven days against an invading Persian force numbering over 100,000.

Another case is "Operation Compass" in North Africa in December 1940 to February 1941, where a British force of 31,000 men overran an Italian force numbering 150,000, taking 130,000 Italians prisoner and killing 3,000. Kennedy Hickman, *World War II: Operation Compass.* Accessed March 19, 2013, About.com, http://militaryhistory.about.com /od/worldwarii/p/compass.htm.

Can, and should, a small state build its strategy based on an alliance in what may become a destabilizing strategic situation? That is a risky game. Walt argues that "[allying] with the dominant power means placing one's trust in its continued benevolence."[8] A decisive question would be: Will the greater power honor the alliance commitment and security guarantees when the security situation gets worse? The questions of honoring alliance commitments also come into play in alliances between states of more equal power. James D Fearon raises the issue in "Signaling Foreign Policy Interests."[9] According to Fearon the most frequently cited study (Sabrosky, 1980), figures a 27% reliability of alliances' commitment in war. Fearon criticizes the study because the settings do not examine the question of commitment when the specific terms of the agreement apply, and claims that therefore the study is not relevant. According to Fearon, there is only one study done under these specific settings.[10] That study's results point at 88% honored alliances in war.

The opinions amongst scholars diverge, but the question is important, and there are logical considerations leading to an answer: rationality and security. As the situation deteriorates, the allied great power will reconsider its calculations to optimize gains. Is the support of the small power *ex ante* worth the costs *ex post*? The decision to honor the commitment, or not, will depend on the situation and the great power's cost-benefit calculation: how might the aggressor benefit, and can the protective great power afford that cost?[11] This calculation risks leading to a situation where different countries within the alliance have different priorities, thus leaving the small nation alone. Two examples of that possibility are the Polish-British defense pact of 1939, and Hitler's piecemeal method from

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[8] Stephen M Waltz, "Alliances Formation and the Balance of World Power," *International Security 9,* no. 4 (1985): 5.

[9] James D. Fearon, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs," The Journal of Conflict Resolutions, 41, no. 1 (1997): 85–86.

[10] Fearon, "Signaling Foreign Policy Interests," 86.

[11] The calculation might include factors as costly signals and reputation, losing face, the small state's geopolitical situation, etc. (authors' remark).

1936 to 1939, expanding the area under his control piece by piece while not upsetting the Allies.

Joining an alliance does not mean that a nation is necessarily given a free ride by the major powers. One such example is that as a NATO member, each member state has an obligation to maintain a credible national defense structure, with a minimum percentage of GDP going to the military forces each year.

Small states who are part of an alliance also face a strategic dilemma: Should they shape their military forces along the same lines of the larger nations, even though these mini-versions of conventional forces will not be able to produce the desired effects? An even riskier solution might be to specialize, training and equipping the nation´s military forces only for a few specific tasks as part of an allied combined force. This might work as long as the alliance works together well, but what happens if priorities change? Rebuilding a force with a wide-spectrum set of capabilities takes years, and cannot be done on short notice in a time of emergency. Another solution for a small state might be to go their own way by creating credible forces that are not similar to those of the larger nations in the alliance.

Neutrality is a gamble, basing national security on the premise that a potential aggressor will see that the predicted cost associated with invading will be higher than the predicted gains. One example of neutrality is Sweden in World War II, where it managed to stay neutral throughout the war, while neighboring nations like Denmark and Norway were occupied by Germany. While this might seem a successful approach, Norway tried to do the same, and failed. There are several reasons for this, but the main reason was the geostrategic position of Norway – the Atlantic coastline was far too important for the Germans for them not to attack. On the other hand, Sweden managed to maneuver diplomatically, maintaining trade cooperation with Germany throughout the war. Consequently, there were few incentives for Germany to invade Sweden, as they reached their objectives without conflict.

The above cases are examples of an interesting dilemma for states seeking neutrality: they do not decide themselves if they can stay neutral – the opposition decides that. To summarize, a neutral state is in the utmost vulnerable situation, with no one else to support it in the case of an attack. It is therefore even more important for a small state to maintain a credible military organization, in addition to using all the other national instruments of power skillfully.

Acquiring weapons of mass destruction (WMDs) is an approach that is not applicable in most situations. While some small states do have such weapons,[12] acquiring them will most likely be unacceptable for most democracies today because of their own political constraints. Countries without such internal limitations have experienced that there are significant costs in terms of sanctions from the international community linked to the development, possession, and even more the use of, such weapons.

So – based on the above analysis, none of the four strategies guarantee the small state´s sovereignty and integrity. This leads us to seek out other possibilities. One option might be to use an irregular approach, employing irregular warfare principles, which have been used successfully in a number of situations through history. This thesis will aim at answering the following questions:

> Research Question: Is an irregular warfare approach to national military strategy appropriate for small states? If so, how can these principles be applied?
>
> Hypothesis: By using principles of IW, combined with a well equipped[13], trained, and designed organization, a small nation can increase the military effect of its military forces.

[12] One example of a small state with WMDs is Israel. Although Israel has never publicly acknowledged that they possess nuclear weapons, they are widely believed to have them. Another example is Pakistan, which is not a small nation, but is defined as a small state relative to neighboring India. (Authors' remark)

[13] "Well equipped" meaning supplying such forces with modern technology to the extent it provides an advantage. (Authors' remark)

B. REVIEW OF CURRENT RESEARCH

Choosing the optimal way of defending a country is an important task, and it could mean the difference between maintaining or losing national sovereignty. There are several ways of thinking when it comes to designing the defense strategy for a small nation. A shaping factor for all the different strategies is that a small nation with limited resources will never be able to beat a much larger opposing force if the "playing field" is even. Some authors have argued that nations should focus more on unconventional, networked approaches. John Arquilla has pointed in his works both towards a high success rate for irregular forces when fighting a conventional opponent[14], but also towards the fact that the use of unconventional forces by the U.S. has been highly successful in several cases.[15] Other contributions, including the recent work by Max Boot, have backed Arquilla's research when it comes to showing the relative strengths of irregular forces.[16]

Based on all these sources, a convincing point could be made that the principles of guerrilla warfare and unconventional warfare could be applied to the entire defensive forces of a small nation, thus giving a higher relative effect. This would lead to a total transformation for most small countries defense forces. One proponent of such significant change is Norway's former Chief of Defense, Gen (ret) Sverre Diesen, who has proclaimed the demise of the tank and mechanized infantry, wanting instead to focus on a networked force based on lighter units.[17] His claim is that smaller units, working in a highly networked organization, utilizing modern technology, will achieve more than small, conventional units. He has, not surprisingly, been met with opposing views by a number of people, including the current commander of the Norwegian Brigade North, Brigadier Gen.

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[14] For further reading, see John Arquilla, *Insurgents, Raiders and Bandits* (Chicago: Ivan R Dee, 2011).

[15] For further reading, see John Arquilla, *Worst Enemy* (Chicago: Ivan R Dee, 2008).

[16] Max Boot, *Invisible Armies* (New York: Liveright Publishing Corporation, 2013).

[17] Sverre Diesen, "Er mekaniske styrkers storhetstid forbi?" ("Is the time of greatness over for mechanized forces?"), *Norsk Militært Tidsskrift* nr. 4 (2012).

Odin Johannesen, who claims that such an approach is far too fragile for the modern battlefield.[18] This leads to another challenge when proposing wide-reaching change: bureaucracies are reluctant to change. Stakeholders in the current organizations will meet proposals of change with resistance, especially if "their" part of the organization will disappear or be significantly changed.

Even larger countries have contemplated incorporating lessons from IW in their conventional forces. In the U.S. Marine Corps 2005 Publication *A Concept for Distributed Operations*, an IW-based approach is presented:

> Distributed Operations describes an operating approach that will create an advantage over an adversary through the deliberate use of separation and coordinated, interdependent, tactical actions enabled by increased access to functional support, as well as by enhanced combat capabilities at the small-unit level. The essence of this concept lies in the capacity for coordinated action by dispersed units, throughout the breadth and depth of the battlespace, ordered and connected within an operational design focused on a common aim.[19]

From a strategic perspective there are two main routes: direct and indirect strategy. The direct strategy is used when a state has the military capacity to impose its will, or create a decisive situation by military victory. This approach is supported by Clausewitz in his *On War*, and is the common theory in military conventional strategy.

The challenge for small states is that they do not possess the resources to use a direct strategy, i.e., a strategy to deter and impose their will on an opponent by military means. This leads to the use of an indirect strategy, seeking a decisive situation with other means than military victory, while avoiding a decisive military battle against a military superior enemy.

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[18] Odin Johannesen, "Hær og nå, i alle dimensjoner!" ("Here/Army and now, in all dimensions!") *Norsk Militært Tidsskrift* nr. 4 (2012).

[19] Department of the Navy, Headquarters U.S. Marine Corps, "A Concept for Distributed Operations," (Washington, D.C., 2005).

This conclusion raises two questions: on what theory should a (grand) strategy for a small state be based; and what are the guiding principles for such a strategy?

Two strategists who answered the first question concerning indirect strategy are B.H. Liddell Hart and André Beaufre.[20] Liddell Hart's main points in his study of indirect strategy is the use of economy of force and psychological blows, thereby dislocating the enemy, physically by mobility, and psychologically by surprise: "When a government appreciates that the enemy has the military superiority, it may wisely enjoin a strategy of limited aims."[21] This strategy is based on raiding, forcing the enemy to distribute of his forces widely, and exhausting the enemy´s moral and physic energy.[22]

Beaufre's main point is to use a strategic plan based on the importance of the issue at stake, relative resources and freedom of action. He presents a concept built on two maneuvers: the exterior (grand strategy), to create freedom of action; and the interior (military strategy), based on the state's material resources, moral assets, time and place.[23]

Beaufre's and Liddell Hart´s theories are supported by Arreguín-Toft´s theory of strategic interaction. He claims that in an asymmetric conflict opposite strategic approaches favor the weaker actor.[24]

Even though many define Irregular Warfare (IW) as guerrilla war, the concept includes a gamut of different methods. The basic idea is to wear down the opponent by using indirect methods and avoid conventional confrontations.

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[20] See Liddell Hart, *Strategy*, and Beaufre, *An Introduction to Strategy.*

[21] Liddell Hart, Strategy, 320.

[22] Liddell Hart, *Strategy,* 321.

[23] Beaufre, *An Introduction to Strategy*, 110–120.

[24] Arreguin-Toft, *How the Weak Win Wars,* 18.

Mao Tse-Tung also describes the principles for IW in his work *On Protracted War* where he points at seven rules as the basis for guerrilla warfare.[25]

Liddell Hart also pays attention to the "camouflaged war," or guerrilla war, and offers some strategic principles about the pros and cons of such an approach.[26] Beaufre answers the second question, regarding the principles for irregular warfare, in his concept of "the inner maneuver," referred to as the erosion model. His theory is based, inter alia, on Mao and T.E. Lawrence. Clausewitz addresses five principles of IW in *On War* in the chapter of People's War.[27] According to Clausewitz, IW must be "nebulous and elusive; its resistance should never materialize as a concrete body . . . On the other hand, there must be some concentration at certain points: the fog must thicken and form a dark and menacing cloud out of which a bolt of lightning may strike at any time."[28] T. E. Lawrence is also

Altogether, the above-mentioned works lead to certain distinctive characteristics, or principles, for using irregular warfare as part of the military strategy. These principles are further supported in Sandor Fabian's thesis *Professional Irregular Forces: the Other Side of the COIN* where the author has studied six different wars where IW was used by the smaller state, or actor.

While a number of important insights have been gained through research concerning irregular approaches to fighting a military superior opponent, we are not aware of any attempt to connect strategic theory and historical evidence into an overarching strategic and tactical concept for small states using irregular warfare. This thesis intends to fill this important gap: the further analysis will focus on how to implement the lessons learned from irregular warfare into a military strategy for small states to increase military effect. Furthermore, the

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25 Tse-Tung, Mao, *On Guerrilla Warfare.* Translated by Samuel B Griffith II (Chicago:University of Illinois Press, 2000), 21–24.

26 Liddell Hart, *Strategy*, 361–370.

27 Clausewitz, *On War,* 480.

28 Clausewitz, *On* War, 481.

research will include an overarching strategy, and the implementation of irregular principles into tactics, command and control, and organization.

C. DESCRIPTION OF THE METHOD

To answer the research question, the focus in the first part of the research will be to analyze what strategy a small state should implement in order to uphold integrity and sovereignty. The second part will answer the question about how the chosen strategy can be supported by using irregular warfare principles. The third part will focus on implementing that strategy and irregular warfare principles into a concept for small states. This part will be supported by organizational design.

Our intent is to build this thesis upon the following methods:

- Analysis of strategic theory, to guide the choice of strategy
- Analysis of historical data, to show general effect of irregular warfare
- Further case studies of relevant cases, to derive success factors for choice of tactics and design
- Organizational design, by using existing theory and derived success factors to design an organization that fits the environment

1. Analysis of Overarching Strategy

In this section, a further detailed analysis of the works of recognized thinkers, such as those previously noted, will be augmented by a wider analysis of other sources.

2. Analysis of the Historical Evidence

The research concerning irregular warfare is significant: a great deal of data has been analyzed, explaining both the successes and failures for forces employing irregular warfare. There are also a significant number of sources describing relevant IW principles. In this part of the research we will offer historical evidence, supported by recognized strategists. The thesis will build on

this knowledge and develop the data into a useful base for a new strategy and organization of small states defense forces.

By drawing the conclusions of the research in irregular warfare from historical examples, we can identify the factors that influenced the outcomes of the conflicts, i.e., observable implications or data. In practical terms, this means that factors that have been leading to success should be implemented, while factors that have been leading to failure should be mitigated. This implementation or mitigation of factors should only be undertaken after careful consideration of their applicability in the situation at hand. All historical experiences might not necessarily be applicable in all cases.

3. Identifying Factors: The Data

The research will be made in a set of logical steps. First we will collect data from previous research, combined with a broader set of cases in order to identify the factors that lead to the outcome. This step will help identify conflicts where forces using conventional tactics have confronted forces using IW tactics. This will give enable us to identify strengths and weaknesses of IW, and define which factors lead to success or failure.

The next step will be to deepen the case studies – to make the observable implications credible. The conditions considered will include the following:

Political environment.

National culture.

Geostrategic position – meaning political and strategic considerations based on a state´s geographical position.

Geography – meaning the physical environment of a state.

Military resources.

National resources.

The cases that will be analyzed have been chosen based on their relevance to the research question: the effect of irregular warfare as a military strategy for small states. While there are numerous cases showing the use of

some of these principles by guerrillas and insurgents, the cases of states (or state-like entities) employing IW are fewer. In addition to this, the chosen cases are spread in time over more than a century, and geographically across three continents. This might disprove any idea that IW only works under a narrow set of limiting factors. The cases that will be analyzed are the following:

The Boer Wars (1880–1881 and 1899–1902). The Boer Wars are very interesting cases from an IW perspective. The First Boer War, fought in South Africa from December 1880 to March 1881 was a result of a power struggle between Dutch settlers (the "Boer") and the British Empire over control. Lacking any conventional military organization, the Boers created militia units with local connections, utilizing the high levels of field craft and shooting skills among the settlers. The local units were called "commandos."[29] The commandos even elected their own leaders.[30] The Boers used camouflage, local knowledge, and shooting skills to inflict serious damage to the conventional British troops, who were operating in the open, dressed in the brightly colored uniforms of the time. The commando units were self-reliant, and used their own initiative to guide their actions. They used their horse-based mobility to their advantage: "The commando formation for driving home an attack was a loose swarm intent on outflanking the opponents."[31]

After a series of defeats, including the crushing blow at Majuba where the British suffered a 46% casualty rate, the British pulled out. In August 1881, the Pretoria Convention was signed, giving limited independence to the Transvaal region. In 1884, The London Convention of 27 February 1884 was signed, giving full internal independence to the Boers in Transvaal.[32]

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[29] Fransjohan Pretorius, "The Boer Wars," BBC History. Accessed October 12, 2013, http://www.bbc.co.uk/history/british/victorians/boer_wars_01.shtml.

[30] Ibid.

[31] Ibid.

[32] Ibid.

After increasing tension from the late 1880s, the second Boer War erupted in 1899. The Boers had increased their strength significantly since the first war, basing their militia on general conscription.[33] They had also acquired large numbers of German Mauser rifles, enabling them to precisely engage targets at longer distances than the British.[34] The organization was still based on the "commandos," with a size of between 100 and 150 men.

The increased strength in the form of manpower and arms was probably the reason for a shift in tactics, compared to the first Boer War. The Boer attacked British forces head on, and in a single week in December 1899 – the "Black Week" – three attacks cost the British 3,000 killed and wounded.[35] Following this, the British increased their forces in South Africa to 250,000 men in the first months of 1900. As a result of this increase, the Boers had to pull back from their newly acquired areas. It could seem like the retreating forces were beaten, but in reality they were just changing tactics again. The Boer went back to their more irregular way of fighting, and soon achieved improved results.[36]

Christian Rudolf de Wet had fought in the first Boer War, and now, at the age of 45, he was back in the saddle as commandant-general of the Free State. De Wet had no military background before the first war, but he had shown an aptitude for irregular warfare, naturally understanding how to exploit the British weaknesses. He understood the need for quick and decisive action, employing speed in all phases of his operations.[37] His successes included the ambush of a British convoy at Sanna´s Post, where he attacked the British flank, forcing them to retreat into a prepared ambush. The British lost 200 killed and wounded, as well as over 400 taken prisoners. De Wet only lost eight killed or wounded.[38]

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[33] Arquilla, *Insurgents, Raiders and Bandits*, 132.

[34] Ibid, 132.

[35] Max Boot, *Invisible Armies: An Epic History of Guerrilla Warfare from Ancient Times to the Present* (New York: Liveright Publishing Corporation, 2013), 184.

[36] Ibid, 187–188.

[37] Ibid, 187-188.

[38] Arquilla, Insurgents, Raiders and Bandits, 135–136.

Such defeats led to a change in the British approach, both on the operational and tactical level. The number of soldiers increased, their patrolling became much more aggressive, and eventually the British also started targeting the civilian population in an attempt to cut off the local support to the guerillas. This hard-handed approach led a number of Boers to surrender, but the remaining hardliners went even more irregular. De Wet split up his commandos in even smaller units and dispersed them in an attempt to lower their profile, but also force the British forces to divide their forces.[39]

The new approach gave the Boers the ability to fight on, although they were becoming increasingly tired and dispirited. De Wet and his forces spent most of their time evading, and had little ability to inflict serious damage to the British. Finally, in May 1902, a mutual peace agreement was reached. The final treaty was good enough that De Wet signed it. Although the Boers did not end up winning the war, this might be seen as an example of a weaker power achieving better results by mounting a fierce resistance.[40] By adjusting their approach in an increasingly irregular way, the Boers managed to achieve the most critical goal for an irregular force: not losing.

The Winter War in Finland (1939–1940). When Finland was attacked by the Soviet Union in late November 1939, it was not anything close to an even match, in terms of pure numbers. The Soviet forces massively outnumbered the Finnish defenders, both in terms of manpower and materiel. The attacking force consisted of the 7th, 8th, 9th, and 14th Army. The largest of these was the 7th Army, alone having "between twelve and fourteen divisions, with three tank brigades, and one mechanized corps attached (1,000 tanks and other vehicles)."[41] Each of the divisions had an official strength of 17,000 men.[42] The other Armies were

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[39] Ibid, 139–140.

[40] Ibid, 141.

[41] William R. Trotter, *A Frozen Hell* (Chapel Hill, NC: Algonquin Books of Chapel Hill, 1991), 38.

[42] Ibid, 47.

smaller, but still had between three and six divisions plus attached reinforcements. The Soviets were planning on a blitz-krieg style attack, expecting the fighting to be over in less than two weeks.[43]

The Finnish Army meeting this force was limited in funding and training. The Army numbered a total of ten divisions of 14,000 men each, plus an additional three with limited or no equipment. Ammunition supplies and fuel were expected to last only between 20 and 60 days.[44] What the Finns had, though, was the right mindset and ability to use what little resources they had. They developed their tactics and methods to fit their resources and more importantly, the terrain they would be fighting in. The dense Finnish forests "dictated a heavy emphasis on individual initiative and small-unit operations, quasi-guerrilla style. Marksmanship, mental agility, woodcraft, orienteering, camouflage, and physical conditioning were stressed, and parade-ground niceties were given short shrift."[45]

The Finnish Army did not end up fighting a purely irregular war, though. Much of the fighting consisted of defending pre-established fortified defensive lines, suffering through artillery barrages, as well as infantry and tank attacks. In these cases, the Finns had to bow to the sheer mass of the Soviet attacks, though they generally fought hard and bravely. However, when irregular tactics were used, they experienced repeated successes. These operations ranged from isolated sniper attacks, to small nighttime ambushes, to large coordinated attacks on advancing soviet convoys. They developed their own "motti" (meaning encirclement) tactics to do this. In one case, using "motti" tactics at the battle of Suomossalmi, Finnish units managed to stop, contain, split, and isolate two Soviet divisions. This operation lasted from December 23, 1939, to January 8, 1940, with temperatures around minus 30 degrees Celsius. In the end, total Soviet losses were around 27,500 killed. The Soviets also lost 43 tanks, 270

[43] Ibid, 35.

[44] Ibid, 42–43.

[45] Ibid, 41–42.

vehicles, as well as six artillery pieces. The Finns suffered 900 dead and 1,770 wounded.

Despite all the Finnish successes, the Soviets won the war in the end. The lack of external support, lack of weapons and ammunition, as well as the inability to stop the massive Soviet attacks with the conventional defense finally led to a Finnish surrender in March 1940. The victory came at a high cost for the Soviets though, and the losses were highly asymmetric. Even though the Finns were clearly the inferior force, in both numbers and equipment, they lost "only" around 25,000 dead. The Soviets lost around ten times that number, with estimates ranging between 230,000 and 270,000.[46]

The essence of the fight was caught in the farewell order to the Finnish Army soldiers from their commander, Field Marshal Gustav Mannerheim:

> That an army so inferior in numbers and equipment, should have inflicted such serious defeats on an overwhelmingly powerful enemy, and, while retreating, have over and over again repelled his attacks, is a thing for which it is hard to find a parallel in the history of war. But it is equally admirable that the Finnish people, face to face with an apparently hopeless situation, were able to resist giving in to despair, and instead to grow in devotion and greatness. Such a nation has earned the right to live.[47]

The first Chechen War (1994–1996). In December 1994, Russian forces entered Chechnya in order to quash the local attempt at liberating themselves from Russia. In the aftermath of the dissolution of the Soviet Union in 1991, the Chechens had held a presidential election, and the winner, Dzokhar Dudayev, was operating at cross-purposes with the desires of the leaders in Moscow.

The invasion – or intervention – was supposed to be a quick and simple one. The Russians forces were not properly prepared for anything but a simple demonstration of power. The Chechens, on the other hand, were well prepared, both mentally and physically, for an extended irregular fight with the Russians.

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[46] Ibid, 263.

[47] Ibid, 270.

The Chechen forces were led by Aslan Maskhadov, a former colonel in the Soviet Army. In spite of his background as a conventional army officer (he served in the artillery), Maskhadov showed a talent for irregular warfare.[48] In cooperation with his subordinates, he managed to organize, equip, and train a force to exploit the strengths of the urban defense, as well as the vulnerabilities of the advancing Russian forces. Maskhadov based his defense on properly prepared, well coordinated defensive positions, which took advantage of the limitations of the Russian vehicles in the urban terrain. Maskhadov did not attempt do micromanage his units, his motto was "less centralization, more coordination."[49]

The Chechen approach is an example of a very irregular approach to war. It is also an example of the effects of fighting along the same lines that the military organization has been trained and prepared. While there are numerous examples through history of conventional armies turning irregular after first being beaten, the Chechens went irregular from the start. This means they were ready when the Russians arrived, and never had to go through a painful and time-consuming rebuilding phase to update their tactics and organization.

It is also worth mentioning the Chechen approach to information operations. They gave journalists "virtually unlimited access to Grozny,"[50] allowing them to spread their stories to the world. They also created situations where Russian return fire destroyed civilian houses, as well as schools and hospitals.[51] The journalists were given full access to the scenes of such destruction, which supported the story of the Chechen underdogs heroically fighting the brutal Russians.

In the end, the massive losses the Chechens inflicted on the Russian forces, combined with pressure in the form of successful terrorist-style attacks,

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48 Arquilla, *Insurgents, Raiders and Bandits*, 256.

49 Ibid, 258.

50 Olga Oliker, *Russia´s Chechen Wars 1994–2000: Lessons from Urban Combat* (Santa Monica, CA: RAND, 2001), 22.

51 Ibid, 22.

as well as very limited Russian popular support for the war, led to a negotiated cease-fire agreement. Aslan Maskhadov and Russian Aleksandr Lebed signed the agreement on August 22, 1996, thereby ending the war. Subsequently, Russian forces pulled out of Chechnya.

4. Coordination of Identified Factors and Theory

In this step the identified factors will be linked with theories of strategy, irregular warfare, and principles of netwar.[52] The result will be the guiding principles for the organizational design.

The proposed strategy will be based on strategists and conclusions given in the case studies. Proposed tactics will be based on the factors identified in the case studies and the implementation of modern technology. Finally, the organization will be designed to fit the environment, based on the previous analyses.

5. Implementation

The identified success factors, in coordination with theory, will provide the conclusion and foundation for implementation of the right strategy, tactics, organization, and technology. Using the relevant theory for organizational design, an organization based on the previously derived principles and guidelines will be constructed. In addition to the organization itself, the following issues will be addressed:

- How should the proposed changes in national strategy be implemented?
- How should the chosen strategy be broken down into tactical guidelines and organization?
- How should the advantages of modern technology be implemented?

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[52] See John Arquilla and David Ronfeldt, *Networks and Netwars: The Future of Terror, Crime, And militancy (*Santa Barbara, CA: RAND, 2001), 6–7.

Our hypothesis is that an advantage can be achieved by using IW principles. By shifting focus, both in terms of priorities and investments, from heavy equipment to small, light units using effective tactics, we believe that a small state can increase its military capabilities significantly. Thereby, it can increase its chances of success across a range of scenarios, not only against conventional threats. Another important effect of basing an organization on IW principles is that it might be better suited for fighting an unconventional enemy. It is a historic fact that several of the threats in international operations that Western forces have been involved in since WWII have been at least partially irregular.

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II. THE SMALL STATE'S STRATEGY

In order to explore the question of whether an irregular warfare approach is appropriate to a small state's national military strategy, this chapter will discuss strategy in general, and military strategy for small states specifically. Based on the findings, the chapter will outline a strategy for small states. The discussions are mainly based on the works of two military strategists, André Beaufre and B.H. Liddell Hart.

A. WHAT IS "THE SMALL STATE?"

What is a small state? According to Jeanne Hey, attempts at definitions "have included geographic size, population size as measure, and a country's degree of influence in international affairs."[53] Rothstein, on the other hand, defines a small state as "[a] state, which recognizes that it can not obtain security primarily by use of its own capabilities, and that it must rely on the aid of others."[54] Arreguín-Toft generally defines small (i.e., weak) states as states that find themselves as the weaker side in a military asymmetric conflict.[55]

According to Liddell Hart, states are of two kinds: the acquisitive state and the conservative state. The former is primarily concerned with conquests. The latter is more concerned with preserving its security and maintaining territorial boundaries.[56] This grouping of states does not imply whether a state is small or large, but describes a state's intentions. Based on inherent capacities, a small state is bound to be conservative.

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53 Jeanne A Hey, Small States in World Politics: Explaining Foreign Policy Behavior. (Lynne Rienner Publishers Inc, Boulder, Colorado, 2003), 2.

54 Robert L. Rothstein, Alliances and Small Powers. (New York: Columbia University Press, 1968), 29.

55 Ivan Arreguín-Toft *How the Weak Win Wars: A Theory of Asymmetric Conflict* (New York: Cambridge University Press, 2005), xi.

56 Liddell Hart, *Strategy*, 355.

The key to a valid definition is to view the small state in comparison to something larger or greater. By doing that, we put the small state in a context. For the purpose of this chapter, the definition of a small state is based on the context of conflict and war. This will lead to a definition based on factors including *the comparison* of military capabilities (size, technology, strategy, tactics), as well as capabilities to create international support, coalitions and alliances; i.e., extended military capacity, by the use of diplomacy and psychological warfare.

Great powers are those states with the military capability to influence and impose their own national interests and objectives by acting offensively outside their own territory, either regionally or globally. This capability can be used in order to coerce, occupy areas of interest, conduct limited war, show force etc. Smaller states, on the other hand, lack the great powers' offensive military capacity to influence. These states are thus forced to implement their national strategy and use their statecraft and instruments of power in other ways in order to protect national interests and sovereignty.

Based on this analysis, we can identify a couple of central factors defining small states. First, small states are those states whose militaries would be considered significantly inferior in comparison to their opponent in a military asymmetric conflict. Second, small states are generally defensive and, to use Liddell Hart's notion, conservative from the perspective that these states have no strategic offensive intention. This does not, however, exclude offensive operations in support of a general defensive strategy.

B. WHAT IS STRATEGY?

According to Beaufre, "The art of strategy consists in choosing the most suitable means available" and combining them "to produce a psychological pressure sufficient to achieve the moral effect required."[57] Beaufre continues by making a sub-division of strategy into different fields of a conflict. At the top is the

[57] André Beaufre, *An Introduction to Strategy: With Particular Reference to Problems of Defense, Politics, Economics, and Diplomacy in the Nuclear Age* (New York: Praeger, 1965), 24.

total strategy; below that we find the overall strategy of the different fields (military, political, economic and diplomatic). Each field has its own operational strategy.[58] These fields run the gamut of means available.

Liddell Hart, as well as Beaufre, makes the distinction of strategic levels based on the responsibilities between the government and the military leaders. While the Government is responsible of the sphere of policy (Grand strategy), the military leaders tend to have operational control of the military.[59] Grand strategy encompasses not only fighting power, but will also include financial, diplomatic and ethical pressure to weaken an opponent's will.[60]

This initial identification of strategy is important and leads to some important conclusions. First, military strategy cannot be seen in isolation. Military strategy must be put in a context, as one of several instruments of power for a nation. Military power and strategy are just two of several means and strategies a nation uses in order to protect national interests. Military power and strategy are sometimes supported by other means, and at other times, they support those other means. The combination of means and strategies is called statecraft or grand strategy; according to Van de Velde, it is "the process through which a nation attempts to minimize its weakness and limitation, and to maximize its strength and capabilities in a current international situation."[61]

Secondly, the above identification of strategy leads to a recognition that there is a distinction between the political and the military levels and their roles in strategy. According to Beaufre, the political focus is on public opinion, what the public wants and can accept, while the military focus is on the employment of available military resources to produce a given result, defined by the political level.[62]

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[58] Ibid, 30–31.

[59] Liddell Hart, *Strategy*, 322.

[60] Ibid, 322.

[61] Van de Velde, R W. "Instruments of Statecraft." *Army* 1, no. 5 (1962): II-A-2.

[62] Beaufre, *An Introduction to Strategy*, 29.

Third, it shows the overall responsibilities of the political level in coordinating, controlling, and using different instruments of power, or national resources, including economy, diplomacy, and information.

C. WHAT IS MILITARY STRATEGY?

From Beaufre's point of view, military strategy is "the art of applying force so that it makes the most effective contribution towards achieving the ends set by political policy."[63] [Military] strategy, per se, is defined as "the art of the dialectic of two opposing wills using force to resolve their dispute."[64]

The aim, he continues, " . . . is to force the enemy to accept the terms we wish to impose on him. In this dialectic of wills *a decision is achieved when a certain psychological effect* has been produced on the enemy: when he becomes convinced that it is useless to start or alternatively to continue the struggle."[65]

According to Liddell Hart military strategy is " the art of distributing and applying military means to fulfill the ends of policy."[66] For success, strategy depends on "a sound calculation and co-ordination of the end and the mean."[67] Liddell Hart defines the aim of military strategy as " to bring about [the] battle under the most advantageous circumstances. And the more advantageous the circumstances, the less, proportionately, will be the fighting. The perfection of strategy would be, therefore, to produce a decision without any serious fighting."[68]

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63 Ibid, 22.

64 Ibid, 22.

65 Ibid, 23.

66 Liddell Hart, *Strategy*, 321.

67 Ibid, 322.

68 Ibid, 324.

In summary Liddell Hart means that "[t]he true aim is not so much to seek battle as to seek a strategic situation so advantageous that if it does not of itself produce the decision, its continuation by a battle is sure to achieve this."[69]

From this discussion we can draw some important conclusions. First, The central part of military strategy in the dialectic struggle is the will: the opponent's realization that to start or continue a struggle will impose more costs than benefits on him. Though the military strategy is guided by an overall strategy, the costs will be subjective, depending on the opponent's objective and prerequisites. Second, what is "the most advantageous circumstance" and what is the "advantageous strategic situation"? The answer lies in arranging the nation's resources in the most cost effective way, i.e., getting the most "bang for the buck," to include creating a strategic situation based on the nation´s inherent resources and strategic conditions. These conditions and resources include the economic, military, diplomatic, and information capabilities, as well as the geopolitical situation and specific geography.

D. THE STRATEGIC WAYS: DIRECT OR INDIRECT STRATEGY

So, how can a small state minimize weaknesses and limitations, while maximizing strengths and capabilities? How can a small state convince an opponent of the futility of starting or continuing the struggle, and make a conflict appear more costly than beneficial to an opponent? The answers are to be found in the execution of "the art of applying military means to fulfill the ends of policy," i.e., the choice of the strategic way.

1. Direct Strategy

The direct strategy is used when a state has the military capacity to impose its will on an opponent. Military force can be used to threaten, coerce, deter, or compel an adversary, or to achieve a decisive decision or situation by

69 Liddell Hart, *Strategy*, 325.

the use of military actions and victory.[70] This approach is supported by Clausewitz´ *On War*, and is the common theory in military conventional strategy.

The definition of direct strategy leads to conventional or traditional warfare. This warfare is described by the U.S. Department of Defense as "[A] form of warfare between the regulated militaries of states, or alliances of states, in which the objective is to defeat an adversary's armed forces, destroy an adversary's war-making capacity, or seize or retain territory in order to force a change in an adversary's government or policies."[71] In summary, direct strategy is the strategy for the militarily stronger/superior. For a small state, with an inferior conventional military capability, this is obviously not a viable solution.

2. Indirect Strategy

According to Beaufre, "the essential feature of indirect strategy is that it seeks to obtain a result by methods other than military victory."[72] A main characteristic of indirect strategy is what Beaufre calls "the freedom of action." Freedom of action is defined as the area set by the potential repercussions upon the international situation, "within which the conflict must be kept confined."[73] Freedom of action can thus be defined as the political area wherein the opponents can maneuver, and if that area is crossed, the consequences will involve the entry of other actors.

"Indirect strategy is therefore the art of making the best use of the limited area of freedom of action left by the deterrent effect of the existence of nuclear weapons and of gaining important and decisive victories in spite of the fact that the military resources which can be employed for the purpose must in general

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[70] Coercion is the use of threats in general, while deterrence aims to prevent a target to act, and compellence aims at getting a target to act in a specific way. See Peter Viggo Jakobsen, *Western Use of Coercive Diplomacy after the Cold War,* (London: MacMillan Press, 1998), 12.

[71] U.S. Department of Defense Directive 3000.07, December 1, 2008. Accessed September 13, 2013, http://www.dtic.mil/whs/directives/corres/pdf/300007p.pdf.

[72] Beaufre, *An Introduction to Strategy*, 108.

[73] Ibid, 108.

remain strictly limited."[74] The concept of indirect strategy is built on two forms of maneuver: the exterior and the interior. The aim of the exterior maneuver is to create maximum freedom of action, while denying the opponent the same. The criterion for success is to create a favorable position on the international level.[75] The actions of the exterior maneuver occur when "primarily psychological; political, economic, diplomatic and military measures [are] all combined towards the same end."[76]

Beaufre stresses two conditions for success: a military deterrent force to "prevent the enemy reacting on a major scale," and a "definite line of policy," as Beaufre calls "the true operational plan in the psychological field."[77]

The interior maneuver, conducted in the area of operation, is based on three interdependent factors: material force, moral force and time. Depending on strength of the actor's factors, Beaufre identifies two methods. The first, "the piecemeal method," uses intermediate objectives by a rapid superior military force. The second method, "the erosion method," is based not on military victory, but by prolonging the conflict and making it too costly for the enemy.[78] From a small state's perspective, the erosion method seems like a more useful approach, and will be further developed in the chapter concerning irregular warfare principles.

Liddell Hart's focus is foremost on the military strategic and tactical level, but he pays attention to grand strategy in one chapter. "A state which expends its strength to the point of exhaustion bankrupts its own policy, and future."[79] The essence of strategy is to wage a war in accordance with the peace you want to achieve.

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74 Beaufre, *An Introduction to Strategy*, 109.

75 Ibid, 110.

76 Ibid, 111.

77 Ibid, 110–113.

78 Ibid, 113–114.

79 Liddell Hart, *Strategy,* 353.

As noted earlier, according to Liddell Hart, states are of two kinds: the acquisitive state and the conservative state. The latter's most economical strategy should not, it seems at first glance, be a purely defensive strategy. "Economy of force and deterrent effect are best combined in the defensive-offensive method, based on high mobility that carries the power of riposte."[80]

Liddell Hart also pays attention to the "camouflaged war," or guerrilla war, offering some strategic principles about the pros and cons of such an approach. This will be further elaborated in the chapter concerning irregular warfare.

Liddell Hart's main point in the studies of indirect strategy, or the indirect approach, is the use of economy of force and psychological blows, thereby dislocating the enemy, physically by mobility and psychologically by surprise: "When a government appreciates that the enemy has the military superiority, it may wisely enjoin a strategy of limited aims,"[81] This strategy is based on raiding, forcing the enemy to distribute of his forces widely, exhausting moral and physical energy.[82]

Liddell Hart points out eight axioms as the essence of strategy and tactics: "Adjust your ends to your means;" "Keep your object always in mind"; "Choose the line of least expectation;" "Exploit the line of least resistance;" "Take a line of operation which offers alternative objectives;" "Ensure that both plan and disposition are flexible – adopt to circumstances;" "Do not throw your weight into a stroke whilst your opponent is on guard;" "Do not renew an attack along the same line after it has once failed." To succeed "two major problems must be solved – *dislocation and exploitation*."[83] According to Liddell Hart, "one precedes and one follows the actual blow . . . [You] cannot hit the enemy with effect unless

80 Liddell Hart, *Strategy,* 355.

81 Ibid, 320.

82 Ibid, 321.

83 Ibid, 335–336.

you have first created the opportunity; you cannot make that effect decisive unless you exploit the second opportunity that comes before he can recover."[84]

3. Summary

Based on the questions raised in the beginning of this chapter, the analysis has lead to some conclusions concerning a small state's strategy:

- Based on a small state´s inferior conventional military capacity, it should use an indirect strategy. The end in a conflict for a small state will probably not be reached through a direct military victory, but by prolonging and spreading the conflict in order to make it too costly for the enemy to continue.
- The indirect strategy must be fought in two spheres: the exterior and the interior. The exterior maneuver will aim at gaining freedom of action while denying the opponent the same. The means for this involves psychological warfare.
- To avoid exhaustion, the interior maneuver must be fought by the use of economy of force and psychological blows, thereby dislocating the enemy, physically by mobility, and psychologically by surprise.
- The military strategy should be a defensive-offensive method, based on high mobility that carries the power of riposte.
- For a small state the desired end state is a return to the pre-conflict status quo, with sovereignty within its borders. Thus, a small state must make the conflict total, in the sense that the opponent (who often sees the war as "limited") must understand that it is going to be a costly war.

4. How the Weak Win Wars

In an asymmetric conflict, opposite strategic approaches favor the weaker.[85] This is the essence of Ivan Arreguín-Toft's strategic interaction theory.

[84] Ibid, 336.

His study covers an analysis of over 200 conflicts between 1816 and 2003. The author´s main point is that small states should execute a counterstrategy given the other actor's strategy.[86]

According to Arreguín-Toft there are two strategic approaches: direct and indirect. While the former targets an adversary's physical military assets in order to destroy the physical capacity to resist, the later approach aims at the will to resist.[87] Even though the choice of strategy, per se, is primary, Arreguín-Toft points at a couple of factors supporting an indirect strategy for the weaker state.

Interests and vulnerabilities. An actor with very high interests (such as survival) in a conflict must be defeated on the battlefield, while an actor with very low interests needs not to be defeated military. The higher an actor's interest in the issue at stake, the less vulnerable it will be to being forced to quit a fight before a military decision. The lower an actor's interests, the more vulnerable it will be.[88] This will lead to a strategic guideline from the political level, i.e., the grand strategy, to raise the interest in the conflict and make the conflict total.

Political vulnerabilities and conflict duration. A war's duration is a measure of its legitimacy, especially in asymmetric wars.[89] The Soviet-union war in Afghanistan, as well as the U.S. wars in Iraq and Afghanistan are all examples supporting this statement. The wars were initially decided upon by an expectation, and from the military side a guarantee, of a quick victory. As the conflicts dragged on, the war expenses and own casualties increased, as well as civilian suffering and collateral damages reported by media. This lead to a political situation for the U.S. government as well as for the Soviet-union regime

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85 Asymmetric conflicts are defined as conflict where one side possesses overwhelming power with respect to the adversary. See Ivan Arreguín-Toft, *How the Weak Win Wars: A Theory of Asymmetric Conflict* (New York: Cambridge University Press, 2005), ix.

86 Arreguín-Toft, *How the Weak Win Wars*, 34.

87 Ibid, 34.

88 Ibid, 25.

89 Ibid, 26.

where the wars and political decisions got questioned internally, by the U.S. and Soviet-union home opinion and opposition, as well as internationally.

This will lead to the conclusion of aiming at prolonging the war, by a military indirect strategy and using the exterior maneuver to influence international actors and the opponent's home opposition. Arreguín-Toft argues that authoritarian regimes have two advantages over their democratic counterparts: control over information that reaches the domestic population; and the audience is not in position to alter state policy or strategy.[90] From this perspective authoritarian states should be less vulnerable politically. This might mean that attempts at influencing the home audience of a strong aggressor will not be very successful.

The Strong actor's strategic context. Strong actors often have different theatres and adversaries to face. Historically, strong actors have favored a direct strategy, supported by a conventional military strategy. As a consequence, they have generally been unprepared to fight an opponent who uses irregular warfare principles.[91] The examples of strong actors lacking preparation to fight such an asymmetric battle are numerous. One such example is the Soviet attack on Finland in 1939, where the Soviets at times (especially in the first part of the war) were stopped dead in their tracks by the Finnish Army, which was inferior in every way except tactics. Another example is the United States-led coalition in the second Iraq War, which after an overwhelming victory against the regular Iraqi forces had significant problems adjusting to an emerging insurgent threat. In both these examples the strong actors fared better after changing their tactics and employing more forces. This does not change the fact that they were initially unprepared to fight an enemy who used irregular methods.

National cohesion and public support. To be successful when on the defense, an indirect strategy must be combined with a strong popular support.

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[90] Arreguín-Toft, *How the Weak Win Wars*, 27–28.

[91] Ibid, 219–221.

The weaker state must also have, or gain access to, the physical and political sanctuaries necessary to make an indirect strategy a viable choice.[92]

In summary, Arreguín-Toft's work leads to some conclusions for a small state's choice of strategy. First, regarding the use of an indirect strategy, the main reason for an indirect strategy is the reality of military asymmetry, where the smaller state is inferior.

Second, smaller states should aim at protracting the conflict/war. If strategic surprise or fait accompli were the ideal outcomes for an actor with relatively low interests, pre-conflict, the worst outcome would be a protracted war. This leads to the conclusion that the attacked actor should protect its forces by dispersal, should somehow persevere, and, as a consequence, make the war a protracted struggle. This will also lead to the next conclusion.

Third, a smaller state should make the opponent politically vulnerable. From this aspect, Beaufre's exterior maneuver supports Arreguín-Toft's theory: first by limiting the freedom of action - spreading the conflict and thereby opening up a larger front for the adversary to control, and secondly, by prolonging the war and thereby increasing the costs politically, economically, and militarily.

E. THE SMALL STATE'S STRATEGY

1. The Small State's Logic

The most basic objective for a small state's national military defense strategy is to uphold integrity and defend sovereignty. By definition, the aim of strategy is to convince an opponent "that it is useless to start or alternatively to continue the struggle."[93]

From a small state's perspective, a crisis where an aggressor challenges the smaller state's integrity and sovereignty can be seen as a logic layer of phases. The phases are incidents, aggression, invasion and occupation, and will

92 Ibid, 224–225.

93 Beaufre, An Introduction to Strategy, 23.

influence the means of defense; be that means military, political, diplomatic, and / or economic. Based on these layers, a defense strategy can be divided into different layers of defense actions, and capacities, to uphold integrity and sovereignty.

Incidents are defined as a situation where an opponent violates the state's integrity by air, land or sea.

Aggressions are defined as an opponent's operations with the intention to influence in order to persuade or deter, and can include taking control of part of a country's territory or other interests. Unlike incidents, aggressions usually have a political ingredient.

Invasion is a subset of aggression, and is defined as an opponent entering another country's territory by military force in order to take control of it, in whole or part.

Occupation is defined as a situation where an aggressor has taken control of the territory in whole, or in part. According to U.S. Department of Defense, occupation is "a condition in which territory is under the effective control of a foreign armed force."[94] "A Territory is considered occupied when it is actually placed under the authority of the hostile army . . . The occupation applies only to the territory where such authority is established, and in a position to assert itself."[95]

Whether the layers will be in a logical order or not, depends on the aggressor's motives, objectives, and strategy, and the development of the crises, i.e., the small state's counteractions and the international response. There are, of course, different scenarios, depending on the aggressor's objectives, chosen strategy, relative resources and calculated freedom of action. (The strategy can

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94 U.S. Department of Defense. *Joint Publication 1–02: DoD Dictionary of Military and Associated Terms, 8 November 2010* (As Amended Through 15 October 2013). Accessed December 02, 2013, http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

95 Article 42 in Laws and Customs of War on Land (Hague II); July 29, 1899. Accessed December 02, 2013, http://avalon.law.yale.edu/19th_century/hague02.asp#art1.

consist of conventional operations, terrorism, limited attacks, surprise attacks, etc., depending on the purpose). However, in general these are the layers that must be taken into account when constructing a strategy to defend the country.

Beaufre explains the bottom-line in this reasoning by classifying strategic plans into different patterns based on "the relative resources available to the opposing sides and the importance of the issue at stake."[96] In summary, there will be a need for a flexible military response, and a convincing strategy that in the first place will be a deterrent, and in the second place will inflict enough costs onto an aggressor to end hostilities.

Based on the layers, three "strategic actions" appear: deterrence, in order to persuade an opponent through the anticipated costs of any actions threatening integrity and sovereignty; Defense, either limited or total, first in order to respond to incidents, and later on to handle aggressions and invasion; and finally, during occupation, resistance. All strategic actions have a common goal: defend and/or restore integrity and sovereignty.

If choosing a conventional, direct strategy, aiming to destroy the opponent's capacity to continue, where can we find the threshold where the stronger aggressive state will win? An invasion is quite straightforward in logical thinking, and will end with an occupation, if that is the conventionally superior state´s objective. The interesting finding in this argument is that, based on a conventional military reasoning, the threshold is to be found in the second layer, the aggression. During this phase an aggressor could choose to interrupt or continue. As long as there are no incentives to abort, a further escalation would benefit the aggressor. The escalation will benefit the aggressor having a military conventional advantage: he knows the outcome if escalation occurs, and he knows that he will win. A small state, with a conventional military strategy, has no real choice, as he is out of military options. The weaker is dragged into a

96 Beaufre, *An Introduction to Strategy*, 26–28.

conventional "cul-de-sac." In summary, *there seems not to be any logical reasons to fight a war you clearly cannot win.*

So, if military strategy is about achieving the ends set by political policy, the first challenge for small states is that they do not possess the resources (means) to use a direct strategy, i.e., a strategy to deter and impose their will on an opponent by conventional military means. This leads to the use of an indirect strategy, seeking a decisive situation in other ways, and avoiding a decisive military battle against a militarily superior enemy.

2. Summary: The Small State's Ends, Ways and Means

If "The art of strategy consists in choosing the most suitable means available" and combining them "to produce a psychological pressure sufficient to achieve the moral effect required," how is this executed by a small state?[97]

First, military means cannot be seen in isolation, but must be combined with the other means available to the small state. The importance of a grand strategy and statecraft is paramount for the small state. The ability to maneuver on the exterior, as Beaufre puts it, in order to gain freedom of action, while denying the same for the opponent, is critical. This maneuver will include all kinds of tricks, and the use of all the state´s tools (diplomacy, informational, military, and economics), aimed at spreading the conflict into the international arena and context, and, thereby, producing the psychological pressure required for an aggressor to reconsider his plans.

Second, from a military perspective, if the art of military strategy is "applying force so that it makes the most effective contribution towards achieving the ends set by political policy," where is the effectiveness?[98] For a small state confronted by a militarily superior opponent, the odds are low if captured in a conventional conflict. Here the military counterstrategy will be executed.

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[97] Beaufre, 24.

[98] Ibid, 22.

The basic role for the defense strategy is to deter. If deterrence fails, the interior maneuver will be based on a military indirect strategy, with the aim not to win by purely military means, but by psychological blows supported by carefully employed kinetic activity. This strategy will focus on avoiding exhaustion by the use of high mobility, surprise, dispersal and concentration, thereby prolonging the conflict, and exhausting the enemy. The aim is the same as in the exterior maneuver: psychologically and physically exhausting the enemy, making him understand that he is better off with ending his aggression because the costs will exceed the benefits.

In summary, the *end* for a small state's strategy is to defend integrity and sovereignty. The *way* is to use an indirect strategy with the military *means* based on irregular warfare principles, executed with tactics that support the strategy, achieving maximum effect while avoiding the opponent's military strength.

III. IRREGULAR WARFARE PRINCIPLES

Based on the previous chapters concerning strategy, it seems evident that a small state should develop an indirect strategy, avoiding open confrontation with a larger opponent's military forces, while making any attack by an aggressor more costly than the aggressor is willing to pay. The costs in this case are foremost political, military and/or economic. This premise leads away from conventional military thinking and solutions, and leads to another approach: irregular warfare.

According to Arreguín-Toft's *How the Weak Win Wars*, there is a trend towards small states winning more conflicts over greater states.[99] The interesting thing here is not the fact that this is happening, but rather ***how*** it is happening. There are two answers to this question. The first is that it is a result of the choice of strategy. As discussed in earlier chapter, a small state should adapt a strategy that leads to specific ends, the state's integrity and sovereignty. The use of an indirect strategy is the obvious choice, based on the idea that the smaller state is militarily inferior and, thereby, cannot win a conventional military conflict. The second answer is that it is a result of the use of irregular warfare principles. This chapter will identify the principles and the factors for a successful irregular warfare approach, using the theories of Beaufre, Liddell Hart, Mao Tse-Tung and Clausewitz, and historical case studies based on Sandor Fabian's research in *Professional Irregular Defense Forces: the Other Side of the COIN.*

A. WHAT IS IRREGULAR WARFARE?

It is hard to find an exact definition of irregular warfare. According to Unites States Joint Forces Command´s 2006 irregular warfare special study,

> IW is used loosely as a synonym for unconventional warfare, asymmetric warfare, guerrilla warfare, partisan warfare, nontraditional warfare, low intensity conflict, insurgency, rebellion,

99 Ivan Arreguín-Toft, *How the Weak Win Wars,* 4–5.

> revolt, civil war, insurrection, revolutionary warfare, internal war, counter insurgency, subversive war, war within a population, intrastate war, internal development, internal security, internal defense, stability, law and order, nation building, state building, small war, peacemaking, peacekeeping, fourth generation warfare (4GW), and global war on terror (GWOT).[100]

The United States Joint Chiefs of Staff define irregular warfare as "[a] violent struggle among state and non-state actors for legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary's power, influence, and will."[101]

Arreguín-Toft defines Guerrilla Warfare Strategy (GWS) as,

> … the organization of a portion of a society for the purpose of imposing costs on an adversary using armed forces trained to avoid direct confrontations. These costs include the loss of soldiers, supplies, infrastructure, peace of mind and, most important, time. Although GWS primarily targets opposing armed forces and their support resources, its goal is to destroy not the capacity but the will of the attacker.[102]

According to Mao Tse-Tung, guerrilla warfare is the "weapon that a nation inferior in arms and military equipment may employ against a more powerful aggressor nation."[103]

By comparison, the United States Marine Corps refers to irregular warfare as,

> … all unconventional methods of violence used to counter the traditional capabilities of a nation-state's military forces. Examples of irregular war include acts that are military, political, psychological, and economic in nature, conducted to undermine the

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100 United States Joint Forces Command Joint Warfighting Center, "Irregular Warfare Special Study" (Suffolk, VA: 2006), pp. II–3 Accessed October 11, 2013, http://www.scribd.com/doc/133062142/Irregular-Warfare-Special-Study-2006.

101 Department of Defense Directive Number 3000.07 December 1, 2008, 11. Accessed October 9, 2013, http://www.dtic.mil/whs/directives/corres/pdf/300007p.pdf.

102 Ivan Arreguín-Toft, *How the Weak Win Wars,* 32–33.

103 Tse-Tung, *On Guerrilla Warfare*, 42.

> authority of a local government or influence an external power. This category includes insurgents, guerrillas, terrorists, and similar groups and organizations, which operate in weak and/or failing nation-states.[104]

James D. Kiras focuses on groups and their (lack of) resources in his definition of irregular warfare: “the use of violence by sub-state actor or groups within states for political purposes of achieving power, control, and legitimacy, using unorthodox or unconventional approaches to warfare owing to a fundamental weakness in resources or capabilities.”[105]

The aim is, like the aims with strategy, to win the war by other means than a direct confrontation, or as Mao Tse-Tung puts it, “to preserve oneself and destroy the enemy.”[106] From this perspective irregular warfare is the method, or military means, to fulfill the ends stated by policy.

In summary, irregular warfare has a broad definition including a gamut of “warfare methods,” as described above. The most important parts include the aim to “erode an adversary’s power, influence, and will,”[107] and to preserve oneself by avoiding direct conventional confrontations. IW can be seen as a different military mindset, using other methods than conventional warfare to exhaust and erode the will of the opponent. The opponent from this perspective is made up of the aggressor´s policy makers, the military and the domestic population.

This thesis will define irregular warfare as *the overarching method used in an indirect strategy in order to win the war by other means than conventional warfare.* This definition leaves open to a wide range of tactics for the small state to use, from classical guerrilla tactics, commando-style raiding, to terrorist and

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104 USMC College of Distance Education Training: Command and Staff College Distance Education Program, Lesson 8906 AY13, p 2–12. Accessed September 02, 2013, www.cdet.blackboard.com.

105 David Jordan, *Understanding Modern Warfare*, (Cambridge; New York: Cambridge University Press, 2008), 232.

106 Tse-Tung, Mao, *On Protected War*, 61.

107 Department of Defense Directive Number 3000.07 December 1, 2008, 11.

resistance tactics (sabotage, assassinations, etc.) and non-violent actions, depending on the state's resources. The aim is to erode the will of the opponent to start or continue a conflict.

B. DECISIVE PRINCIPLES AND FACTORS IN IRREGULAR WARFARE

What are the principles and factors that promote success for irregular warfare? The question will be approached by first analyzing military theories and subsequently by analyzing historic cases.

1. In Theory – Beaufre

In situations where a state is militarily inferior, Beaufre refers to *the erosion model*. Operations conducted by this model must emphasis "two spheres at the same time, the material sphere, i.e., that of military force, and the morale sphere, i.e., that of psychological action"[108]

In the material sphere, the priority is to persevere by using guerilla actions. The military operation should be based on "refusing battle and using harassing tactics to keep the conflict going."[109] Beaufre refers to Mao Tse-Tung's seven principles for success, and adds two essential concepts to maintain freedom of action. The first is the use of terrorism in order to deter the population from supporting the enemy. The second concept is to "extend the guerrilla threat over the widest possible area" in order to create increased security problems and "redress the balance of forces."[110]

In the psychological sphere, priority is also to endure, mentally and in terms of morale. Beaufre stresses the importance of coordinating psychological actions and guerrilla actions in order to raise one's own morale and at the same time erode the enemy, by "drawing the maximum advantage from any success achieved." At the same time the coordination of the exterior and interior

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[108] Beaufre, *An Introduction to Strategy,* 114.

[109] Ibid, 114.

[110] Ibid*,* 115.

maneuvers is essential.[111] What Beaufre is describing is the use of psychological warfare as an essential part in irregular warfare. The objectives are to increase one's own morale while decreasing the opponent's morale, winning the battle of the narrative, and thereby international support.

2. In Theory – Liddell Hart

In his reflections on guerrilla war, Liddell Hart points out some principles. First, he sees the need to be dynamic and maintain momentum. "Static defense has no part in guerrilla actions, " and "will allow the opponent to tighten his grip of the country and give rest to his troops…"[112]

Second, he stresses that "[G]uerrilla action reverses the normal practice of warfare, strategically by seeking to avoid battle and tactically by evading any engagement where it is likely to suffer losses."[113] The term Liddell Hart uses as the tactical principle is "hit and run," based on the notion that "minor coups and threats can have a greater effect in tipping the scales… by producing more cumulative distraction, disturbance, and demoralization among the enemy."[114]

Third, dispersion and fluidity of force are two factors necessary, in order to, in the first place survive and avoid being a target, and in the second place, be able to concentrate forces when conducting operations.[115]

Fourth, the terrain plays a critical role in two ways, according to Liddell Hart: first as a factor of "the ratio of space to forces." This is based on the need for an opponent to control areas. Liddell Hart favors rugged and forest country, and sees urban areas as a "good ground for a subversive campaign." The second role of terrain involves the necessity of superior local knowledge.[116] This implies the need for local recruitment, or local support.

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111 Ibid*,* 116–118.

112 Liddell Hart, *Strategy*, 365.

113 Ibid, 365

114 Ibid, 365.

115 Ibid, 365.

116 Ibid, 366–367.

Finally, the author highlights the attitude of the people. According to Liddell Hart, “guerrilla war is waged by the few but dependent on the support of the many.” A guerrilla war can only be effective when collectively backed by the population. According to Liddell Hart the guerrilla “tends to be most effective if it blends an appeal to national resistance or desire for independence with an appeal to a socially and economically discontent population”[117] To the extension, by gaining popular support the guerilla can increase support in the form of intelligence and supplies, while denying the enemy the same.[118]

3. In Theory – Mao Tse-Tung

In using Mao Tse-Tung’s *On Guerrilla Warfare* as a reference, it is important to stress the contemporary context of his theories and writings. First, Mao was striving to win a struggle for political control and organization of the state, China. Second, he was facing a war with Japan. This means that his purpose involved something other than establishing a defense of a nation. Still, his writings have relevance for an analysis of IW theory.

In summary, Mao Tse-Tung’s *On Guerrilla Warfare (Yu Chi Chan)* leads to certain distinctive characteristics for a successful guerrilla war:

The relationship between guerrilla warfare and national policy. According to Mao, guerrilla warfare must be organized and conducted in accordance with the national policy and create a national “anti-aggressor” front. To realize the policy, Mao points at certain steps: “Arousing and organizing the population,” “Achieving internal unification politically,” “Establishing bases,” “Equipping forces,” “Recovering national strength,” “Destroying the enemy’s national strength,” and “Regaining lost territories.”[119] A vital conclusion from these steps is that in order to increase the expectation of survival and growth in

[117] Ibid, 367.

[118] Ibid, 367.

[119] Tse-Tung, *On Guerrilla Warfare*, 42–43.

the first phase, a nation needs to organize and train its military forces in peacetime and thereby secure the first four steps above.

Mao further stresses the need "to realize the relationship that exists between politics and military affairs…" and "while military affairs and political affairs are not identical, it is impossible to isolate one from another."[120] This implies coordination between the political and military level, as well as with educated officers.

The relation to the population. Mao stresses the need for population support from two perspectives. The first is the political perspective, that guerrilla warfare will fail "if its political objectives do not coincide with the aspirations of the people and their sympathy, cooperation, and assistance cannot be gained."[121] The second perspective is based on the fact that "guerrilla warfare derives from the masses and is supported by them." Therefore, guerrilla warfare "can neither exist nor flourish if it separates itself from their sympathies and cooperation."[122]

Leadership and Organization. The basis for a military organization is a political and military leadership. This is, according to Mao, "true regardless the source or size of such unit."[123] Mao also stresses the need for educated, disciplined leaders in order to organize and conduct guerrilla warfare.[124] In comparison to orthodox warfare, where command is centralized, in guerrilla warfare decentralization and independence play a principal role.[125]

Guerrilla Strategy. Mao states "Guerrilla strategy must be based primarily on alertness, mobility and attack."[126] It should further take into account "the enemy situation, the terrain, the existing lines of communication, the relative

120 Ibid, 89.

121 Ibid, 43.

122 Ibid, 44.

123 Tse-Tung, *On Guerrilla Warfare*.

124 Ibid, 44–45. (For organization and leadership see further pp. 71–87).

125 Ibid, 52.

126 Ibid, 46.

strengths, the weather, and the situation of the population."[127] In this context, Mao also stresses the strategy to turn the country's advantages to the purpose of resisting and defeating the enemy. These advantages are to be found in the country's terrain, climate, and society in general.[128]

The conduct of guerilla warfare is further explained by guidelines based on surprise, high mobility to attack and withdraw, harass and create local superiority to win local battles. "In guerrilla strategy, the enemy's rear, flanks, and other vulnerable points are his vital points, and there he must be harassed, attacked, dispersed, exhausted and annihilated."[129] This strategy (and tactic) can be compared to John Arquilla and David Ronfeldt's principles of swarming.[130]

The quality of internal purity. "When a nation is invaded, the people become sympathetic to one another and all aid in organizing guerrilla units…"[131] Mao makes a vital point here: Common efforts to a common enemy. At the same time, he points out the risks that might occur based on internal political differences that create defectors, subunits, criminality, i.e., people and groups exploiting the situation. Propaganda, and a functional security apparatus are vital to suppress these fractures.

4. In Theory – Carl von Clausewitz

Clausewitz addresses what he calls the People's war in *On War*.[132] From his perspective, guerrilla warfare is generally seen "either as a last resort after a defeat or as a natural auxiliary before a decisive battle."[133]

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127 Ibid, 46

128 Ibid, 42.

129 Ibid, 46.

130 See John Arquilla and David Ronfeldt, "Swarming & the Future of Conflict," (Santa Monica, CA: RAND, 2000).

131 Ibid, 48.

132 See Clausewitz, Carl von, Michael Eliot Howard, and Peter Paret. *On War* (Princeton, N.J.: Princeton University Press, 1984).

133 Clausewitz, *On War*,483.

He identifies five conditions where a people's war alone can become effective: The war must be fought in the interior of the country; it must not be decided by a single stroke; the theatre of must be fairly large; the national character must be suited to that type of war; and the country must be rough and inaccessible, because of mountains, forests, marshes, or the local methods of cultivation.[134]

In summary, Clausewitz points out the following decisive characteristics:

Swarming Tactics. Clausewitz considers guerrilla warfare

> … to be nebulous and elusive; its resistance should never materialize as a concrete body, otherwise the enemy can direct sufficient force at its core, crush it, and take many prisoners. . . . On the other hand, there must be some concentration at certain points: the fog must thicken and form a dark and menacing cloud out of which a bolt of lightning may strike at any time.[135]

He also addresses the difference between strategic and tactical defense, and the importance of avoiding tactical defense by scattering if attacked and continuing the resistance by surprise attacks. The bottom line in Clausewitz's discussion about guerrilla tactics can also be seen as related to the concept of swarming.[136]

The national character Clausewitz highlights the will to continue the fight, even if the conditions are disadvantageous and the situation seems hopeless. "Even after a defeat, there is always the possibility that a turn of fortune can be brought about by developing new sources of internal strength…" He continues, "[N]o matter how small and weak a state may be in comparison with its enemy, it must not forego these last efforts, or one would conclude that its soul is dead."[137]

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134 Clausewitz, *On War*, 480.

135 Clausewitz, *On War*, 481.

136 Described in Arquilla and Ronfeldt, "Swarming & the Future of Conflict."

137 Clausewitz, *On War*,483.

Advantageous terrain. Even though Clausewitz do not elaborate further on this characteristic, a tactically sound use of the local terrain is vital to regain the initiative, once invaded.[138]

5. In Practice – A Summary of Fabian's Case Study

Sandor Fabian has made an extensive research of six different conflicts where irregular warfare was used.[139] In summary the principles and factors used, and in some cases disregarded, are identified as follows:

National cohesion. The ability of a state to gather all national strength and will for a common end, both physical and psychological, is vital in order to succeed in a conflict using irregular warfare.

This was the case in the American Revolutionary war, with the objective of independence and national identity; in the first Russo-Chechen War 1994–96, when Dudayev succeeded in creating a united national will; and in the Second Lebanese War 2006.[140]

This was not the case in the Boer War, where the Boers had a hard time maintaining strategic unity and, as a result, suffered ultimate defeat – although by a very narrow margin – by the British.[141]

This factor of national cohesion is supported by Mao, who referred to this as "The quality of internal purity" and Clausewitz who noted that "the national character must be suited to that [Guerrilla] type of war." Beaufre identifies this factor as "the moral force" and "a definite line of policy," while Arreguin-Toft calls it "nationalistic."[142]

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138 Ibid, 483.

139 Fabian, *Professional Irregular Defense Forces: The Other Side of COIN*. The wars studied are the American Revolutionary War, the Boer War, the war in German East Africa, the Yugoslav Partisans, the First Russo-Chechen War, and the Second Lebanese War.

140 Ibid, 47, 132.

141 Ibid, 57.

142 What we see today with the professionalization of the defense forces in Sweden, and other countries chosen this way, is a long term risk of polarization between the State, the military and the citizens. War has become a matter for the "chosen clique" of the military elite and politicians. For a small state, with scarce resources, this might be devastating for national sovereignty. (Authors' remark)

Popular Support. A second factor identified is popular support. Generally, in all of Fabian's case studies, popular support turned out to be a decisive factor, supporting irregular warfare politically as well as tactically.

The need for popular support is supported by Mao, recalling this as "The relation to the population,"[143] as well as by Liddell Hart applying the term "the attitude of the people."[144]

Intelligence and information advantages. All case studies in Sandor Fabian's thesis emphasize the advantages of intelligence and information as a decisive factor. The advantages were established due to two factors: first by the support of the local population, and second by tactics (mobility, reconnaissance) in combination with knowledge of the local terrain.

In the case of Yugoslavia, Tito even had an established observation and spying system, with agents throughout the country and amongst the German occupiers.[145]

For the Chechen rebels, the knowledge of the enemy's tactics and techniques, and of weaknesses in the Soviet weapons systems was a significant factor that lead to well-prepared operations.[146] The Chechens were also supported by a "civilian-population based, human-intelligence network… providing accurate and timely information for the rebels about Russian locations and movements."[147]

Hezbollah`s advantages could be found in three areas. First, "…an extensive knowledge on Israeli military doctrine…" Second, the use of deception, in order to mislead Israeli intelligence (aerial and human platforms), "through 'turned' agents, concealing its positions and using many dummy bunkers…" and

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143 See page 7.

144 See page 5.

145 Fabian, *Professional Irregular Defense Forces: the Other Side of COIN*, 106.

146 Ibid, 128.

147 Ibid, 128–129.

third, through information security, that "denied the Israelis access to key information during the conflict."[148]

Keep the struggle alive – time. This factor is only explicitly mentioned in the Russo-Chechen war, where the Chechen strategy was, after an initial drawback of losses, to keep the struggle alive. This was explained by one of the Chechen commanders: "There is no winning. We know that. If we are fighting, we are winning. If we are not, we have lost. The Russians can kill us and destroy this land. Then they will win. But we will make it very painful for them."[149]

This factor is only mentioned by Beaufre in his erosion model. At the same time, all the theorists mention the psychological aspect of irregular warfare, and the aim to destroy the will. An indirect strategy, based on irregular warfare and avoiding direct confrontation, will lead to a need to keep the struggle alive in order to not lose. The reason is twofold: first to exhaust the enemy; second to deny the opponent freedom of action by gaining international support and making the war too costly for the opponent, both internationally and domestically.

Organization. An organization must fit given prerequisites concerning resources, the environment, and chosen strategy and tactics. In general, in all the conflicts studied by Fabian the weaker party adapted to this prerequisite, and it would also turn out to be an important factor in supporting the choice of an indirect strategy and irregular tactics.

In the American Revolutionary War the existing militia system, with its mandatory military training, provided an initial force for the colonies.[150] "Later, the same militia, whose organization, training, and tactics were more suited for guerrilla war than conventional battles, provided a great foundation for the

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148 Ibid, 157.

149 Gregory J. Celestan, Wounded Bear: The Ongoing Russian Military Operation in Chechnya, 1996. Accessed February 29, 2012, http://fmso.leavenworth.army.mil/documents/wounded/wounded.htm#25, in Fabian, Sandor. *Professional Irregular Defense Forces: the Other Side of COIN*, 119.

150 Fabian, *Professional Irregular Defense Forces: the Other Side of COIN*, 47.

introduction of an irregular strategy."[151] The organization also adapted to the circumstances, and "Marion and Sumter's forces remained fluid and flexible during the entire war."[152]

The South African commandos took the conventionally organized and trained forces and turned them into an irregular force after their conventional efforts were defeated. According to Fabian, "The divided units and their maneuvers allowed the Boers to "achieve local superiority long enough to escape…" and the self-sufficient elements of these small units could "break into many small groups and travel separately to a new rally point…"[153]

The flexibility and fluidity of forces was also prominent in the war in German East Africa. Based on a conventional force, the Germans adapted both organization and tactics to meet the requirement.[154]

In this case of The Yugoslav partisans, "the country began the war with an already existing, conventionally organized, trained, and equipped army, which surrendered after eleven days." However, "after the country's complete defeat and occupation, a previously existing (but not military) organization, already operating underground, took over the mission to fight against the invaders."[155]

The Chechen forces created a decentralized network-type organization, and combined the organization with "combined arms" at the small unit level. This organization proved to be highly effective and a key in their use of a swarming-based irregular strategy.[156]

According to Anthony H. Cordesman's *Lessons of the 2006 Israeli-Hezbollah War*, "Hezbollah further organized its fighters into small, self-sufficient

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151 Ibid, 47.

152 Ibid, 40.

153 Ibid, 58.

154 Ibid, 79–81, 90.

155 Ibid, 111.

156 Ibid, 132–133.

teams capable of operating independently and without direction from high authority for long periods of time."[157] This organization "minimized their footprint and appearance time," avoiding the advantages of the Israeli precision-weapon systems, "while providing maximum operational effectiveness."[158]

In summary, by building the military organization on small independent units, with delegated authority and the ability to coordinate, the smaller actors were able to execute their chosen strategy military tactics. The successful actors based their organizations and tactics on knowledge gained from traditional military service, combined with a creativity forced on them by necessity. In the most successful cases, the irregular organizations were also established and trained before hostilities erupted. *"Trustful security strategies and competent defense forces cannot be created after emergencies occur."*[159]

Psychological warfare (Information warfare). Fabian's research also points out psychological warfare (PSYWAR) as a common factor for success. PSYWAR is, according to William E. Daugherty, defined as "…the planned use of propaganda and other actions designed to influence the opinions, attitudes and behavior of enemy, neutral, and friendly foreign groups in such way as to support the accomplishment of national aims and objectives."[160] To further clarify PSYWAR, propaganda has to be defined. This paper will use Stillwell's definition for propaganda: "the planned use of any form of communication designed to affect the minds, emotions, and actions of a given group for a specific purpose"[161]

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157 Anthony H. Cordesman's *Lessons of the 2006 Israeli-Hezbollah War* in Fabian´s "Professional Irregular Defense Forces: the Other Side of COIN," 155–156.

158 Fabian, *Professional Irregular Defense Forces: The Other Side of COIN,* 147.

159 Paraphrasing of USSOCOM's SOF truths, ref "Competent Special Operations Forces cannot be created after emergencies occur." Accessed October 29, 2013, http://www.socom.mil/default.aspx.

160 William E. Daugherty, *A Psychological Warfare Casebook (*Baltimore: Published for Operations Research Office, Johns Hopkins University by Johns Hopkins Press, 1958), 2.

161 Stilwell in Psychological Operations: Principles and Case studies, 320.

The expression “other actions,” used by Daugherty, and the expression “any form of communication,” need further explanation. Ron Schleifer highlights this by identifying other actions as non-violence actions (NVA), subversion, terrorism, and insurgency.[162]

According to Fabian, the Boers used propaganda to their advantage on the tactical level as well at the strategic level, in order to get international support and undermine the British political and military strategy. However, he adds, “The Boers failed not just in convincing the British voters about their cause, but in gaining significant outside support from other countries.”[163] This might be a rather simplified version of what happened. Arquilla describes the lack of effect more as an effect of British *realpolitik*:

> Emily Hobhouse of Britain . . . brought British and world attention not only to the squalid conditions of the camps but to the atrocities committed by imperial troops against Boer civilians. She interviewed many women in the camps, recording their eyewitness accounts of murder and rape. These revelations led to a firestorm of public criticism, increasing pressure on the government to rein in Kitchener. But the fact that his methods seemed to be working against the guerrillas made Whitehall slow to act.[164]

Tito did support his tactics with propaganda operations “ . . . which had three main goals: undermining the invaders’ morale, informing the population about the existence of the resistance, and increasing the self-confidence and morale of the partisans.”[165]

In the case of the Russo-Chechen war, the Chechens used PSYWAR in order to

> … break the Russian leadership’s will to fight and to force the withdrawal of Russian troops from Chechen territory… [C]hechens also introduced psychological operations supported by terrorism as

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[162] Ron, Schleifer, *Psychological Warfare in the Intifada: Israeli and Palestinian Media Politics and Military Strategies* (Brighton ; Portland: Sussex Academic Press, 2006), 3.

[163] Fabian, *Professional Irregular Defense Forces: The Other Side of COIN,* 68.

[164] Arquilla, Insurgents, Raiders, and Bandits, 139–140.

[165] Ibid*,* 105.

> another form of their irregular approach."[166] "The Chechens [further] influenced public opinion by allowing a large number of international journalists to be present in Grozny and other hot spots…[167]

Similarly,

> Hezbollah properly recognized the military value of the media and entered the war with an already functioning system. Through its own television station, its website, and the use of embedded reporters, Hezbollah retained its ability during the entire conflict to formulate and communicate its agenda to the proper target audiences, which had a significant impact on the end results of the conflict.[168]

As showed, PSYWAR is a vital factor in irregular warfare. This is based on the importance of producing a psychological pressure or blow to the enemy by influencing his will. Beaufre highlights this foremost in the exterior maneuver to decrease the opponent's freedom of action. Arreguín-Toft highlights the need to make the opponent politically vulnerable. Liddell Hart talks about demoralization. Mao stresses the need of "political activities" in order to unify the own army and the population, and to destruct the unity of the enemy.[169]

Leadership. A common factor in Fabian´s research is the salient traits of the commanders. General Greene is described as a man who had the ability to understand the situation, as well as think unconventionally, and to use this faculty to "adapt to the situation and exploit the possibilities."[170]

The Boer leaders De Wet and Smuts are both described as strategists and warriors, able to understand and adapt to the situation, who led by example.[171] Paul Von Lettow-Vorbeck was a strategist and fighter, operationally

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166 Ibid*,* 120.

167 Ibid*,* 128.

168 Ibid, 156–157.

169 Tse-Tung, *On Guerrilla Warfare*, 90.

170 Fabian, *Professional Irregular Defense Forces*, 40.

171 Ibid, 59–61.

experienced, with flexibility and ability to tailor the operations and organization depending the situation.[172]

Tito is described by Walter Laqueur, as “a great political and military leader, imperturbable, a man of iron will, a true believer yet not a fanatic.”[173] At the same time he had operational experience from World War I, as well as in leading and organizing the secret communist network in Yugoslavia.[174]

Aslan Maskhadov, with years of experience in the Soviet Army and, thereby, intimate knowledge of his enemy, had a “considerable aptitude for irregular military operations.”[175] According to Fabian “His vision of commander’s-intent-based operations, which relied on highly decentralized execution and small-unit level coordination, proved to be very effective not only during this initial conflict, but throughout the entire war against the Russians.”[176]

But however brilliant the leaders of military force are, their ideas must be fostered in the whole organization, especially in irregular warfare. Subordinate, small-unit leaders must be capable of taking local initiative and independent actions, working along the broad strategic goals and overall lines of operation.

The common qualities for the leaders in Fabian’s study can be summarized as possessing a strategic vein, understanding the overall situation and adapting accordingly by applying unconventional thinking and solutions. Meanwhile there is a “warrior” vein, built on experience, that leads to an understanding of the tactical level, and thereby a willingness to trust and delegate authority to subordinate leaders who have the “ground truth.”

Mao and Liddell Hart support the importance of leadership. Mao stresses the qualities of endurance, mixing with the people (social competence), and

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172 Ibid, 81–82.

173 Walter Laqueur in Sandor Fabian, *Professional Irregular Defense Forces*, 101.

174 John Arquilla, *Insurgents, Raiders, and Bandits (*Maryland: Ivan R Dee, 2011), 204–205.

175 Ibid, 256.

176 Fabian, *Professional Irregular Defense Forces*, 124.

education.[177] Liddell Hart makes an interesting note about military training and the lack of taking the psychology into account. This lack fosters "a cult of soundness rather than surprise (and) breeds commanders who are so intent not to do anything wrong…that they forget the necessity of making the enemy do something wrong."[178] Such an approach is not appropriate for an irregular organization.

Tactical principles. In all cases studied, a common feature is the tactics used. Tactical factors such as swarming, employing mobility in order to disperse and concentrate, having local knowledge of terrain and weather, were all keys to tactical success. These features will be further developed in Chapter IV.

C. IRREGULAR WARFARE – SUMMARY AND CONCLUSIONS.

The intention of this chapter is to identify the principles and the factors for a successful irregular warfare approach, based on both theory and case studies.

Based on the questions raised in this chapter, the analysis leads to some conclusions for a successful use of irregular warfare for a small state. The most prominent factors are summarized as follows.

First, there is a need of national cohesion. As stated earlier in this chapter, the ability to gather all national strengths, both physical and psychological, and hold on for a common end is vital to success in a conflict using irregular warfare.

With national cohesion comes popular support. Popular support is a strategic matter of a joint venture to support the national efforts and political decisions. It is also a matter of supporting a nation's own forces to create intelligence and information advantages, as well as support with logistics, safe havens, local knowledge etc., while denying the enemy the same.

Second, as stated by Beaufre in his *erosion model*, the conflict will be fought in two dimensions: the physical and the psychological. In combination with

177 Tse-Tung, *On Guerrilla Warfare*, 85–86.

178 Liddell Hart, *Strategy*, 336–337.

Beaufre's concept for indirect strategy, strategic coordination will be vital for an effective use of the state's resources, coordination of psychological warfare and gaining international support.

Third, based on the tactical and strategic principles identified, decentralization is paramount. Decentralization, and "auftragstaktik" requires professional leaders, as well as trust between the strategic, operational and tactical levels of command. The basis for these requirements must be built before the conflict erupts.

Fourth, according to Samuel B. Griffith II, "historical experience suggests that there is very little hope of destroying a [revolutionary] guerrilla movement after it has survived the first phase and has acquired the sympathetic support of a significant segment of the population."[179] This, in combination with the opportunity to conduct war planning and preparations, implies that the organization should be established in peacetime in order to gain a quick response to an aggressor threatening the state's integrity and sovereignty.

[179] Samuel B. Griffith II in the introduction to Tse-Tung, *On Guerrilla Warfare*, 27.

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IV. APPLICATION OF STRATEGY

Indirect tactics, efficiently applied, are inexhaustible as Heaven and earth, unending as the flow of rivers and streams; like the sun and the moon, they end but begin anew; like the four seasons, they pass away but to return once more.

Sun Tzu

Float like a butterfly,
Sting like a bee

Mohammed Ali

A. TACTICS, ORGANIZATION, AND TECHNOLOGY

In the previous sections, it has been shown that a small state has the best chances for maintaining its sovereignty and freedom by employing an indirect military strategy and by using principles of irregular warfare. There is, however, a significant span from the overarching national strategy to the practical application: the actual fighting. Oftentimes, this span is so long that it can be hard to find a common thread, or theme, that can be followed through all elements of the military organization. This means that the chosen strategy – if it is at all clearly defined – is not necessarily reflected at the practical levels of the military organization. Sometimes, strategy is even dictated by what can be achieved by the tactics or the organization that a country happens to have. For a small country, with limited resources, such deficiencies can lead to disastrous results. While a larger state can sometimes (but not always) get away with less-than-optimal solutions just because of its sheer military mass, which is not the case for the small state.

This means there has to be a continuous line of thought through the whole defense system, where the tasks and capabilities that the organization produces are clearly linked to the overall chosen strategy.

In our view, the important elements to consider are:

1. Tactical
2. Organizational
3. Technological

The elements should be considered in this order, as each shapes the one below it, and supports the one above. Strategy tells the military *What* to do – the overall goals. The tactics must be chosen as ways to achieve these goals – or *How* to do it. The organization must be designed so that everyone knows *Who* is doing what with clearly assigned tasks. In order to do this, the tasks must be defined first. Starting with an organization and then defining what it should do, or produce, is clearly not a good idea. Still, this has been done, and is probably still being done, in military organizations around the world. When the goals are defined, and tasks have been defined and distributed, it is time to look at the *Tools* with which the tasks are solved. The tools – or technology (or equipment) – come last in this chain for two reasons: the first reason, as stated above, is linked to the tasks; there is little reason to have equipment without a task. This view does not prohibit contingency planning, it just means that there has to be a logically derived, and holistic plan, supporting any acquisition process. In the same way, it is problematic to have a task for which you do not have relevant equipment to help you execute it. The second reason is that personnel are more important than equipment. The human, as part of the organization, should be equipped, not the other way around. In a small organization, the optimal performance of each individual is even more important.

Having stated the logic upon which the analysis will build, it is time to describe the first element: tactics.

B. TACTICS

1. Defining Tactics

The U.S. Department of Defense definition of tactics is "The employment and ordered arrangement of forces in relation to each other."[180] In other words, it is the description of how you use the forces you have available in order to achieve the goals that have been given to you. This means there is – or at least should be – a clear connection between strategy, tactics, and organization. This connection goes both ways. In their 2009 study "Distributed Manoeuver: 21st Century Offensive Tactics," authors Justin Kelly and Mike Brennan state that "Although tactics must serve strategy, strategic ambitions are necessarily subject to tactical possibilities, and the interplay between ends and means is a two-way conversation between the abstract and the physical."[181] The authors further state that "Strategy without tactics is words without actions, and tactics without strategy is senseless violence."[182]

Based on the above descriptions, it can be concluded that when establishing or changing a military organization, it is important that the strategy is seen as the basis for the tactics.

The following description of tactics for a military organization is not an attempt at a complete textbook covering all aspects of tactics. Different organizations have different tasks and operating environments, and will need to develop their specific tactics accordingly. Therefore, what follows is rather a general analysis of tactical principles for irregular warfare, derived logically, and historically tested.

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[180] U.S. Department of Defense. Joint Publication 1–02: DoD Dictionary of Military and Associated Terms, 8 November 2010 (As Amended Through 15 October 2013). Accessed December 02, 2013. http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

[181] Justin Kelly and Mike Brennan, "Distributed Manoeuver: 21st Century Offensive Tactics," (Australia: Land Warfare Studies Centre, 2009), 5–6.

[182] Ibid, 5-6.

2. Strategic Defense Does Not Preclude a Tactically Offensive Mindset

Referencing the analyses made in the previous chapters, this thesis is meant to describe an alternative approach for the defense forces of small nations. The authors presume that most small nations´ primary interest is in the protection of the integrity of their own territories. This means that the following descriptions are primarily directed at defensive activities – meaning defensive at the national strategic level. It is not aimed at describing the best practices for a military force intent upon invading other nations´ territories. This does not mean that such forces shall not conduct tactically offensive operations. Quite to the contrary, the essence of the tactics of the irregular forces will involve aggressively executed attacks on vulnerable parts of the enemy structure or organization, wherever and whenever possible and appropriate. Although the defending forces may choose certain suitable areas to stop an enemy, there is nothing static in an irregular strategic defense. Holding territory for territory´s sake has no value. To quote General Patton, from his speech to the Third Army before the Allied invasion of France in 1944: "We are not holding a goddamned thing. Let the Germans do that. We are advancing constantly, and we are not interested in holding onto anything except the enemies´ balls."[183]

3. Tactical Principles

Achieving success for a military organization is – as many other aspects of life—easy in theory. In order to win, you need to avoid sustaining significant damage while inflicting enough damage to the opponent. For the smaller party of an asymmetric conflict, this also holds true, but avoiding damage and eventually destruction is even more important, since a small military organization can only sustain small losses before it begins to lose effect. When facing a more powerful opponent, the key to avoiding damage is avoiding detection. In the Australian 2009 study "Distributed Manoeuver: 21st Century Offensive Tactics," the concept

[183] From Sun Tzu, *The Art of War*, 85.

of a “detection threshold” is described. This threshold is defined as the maximum size a military element can have before it is detected. The authors refer to “granularity . . . reliably achievable by technological wide area surveillance assets”[184] as the key to how high this threshold is.[185] It is only logical to see the “detection threshold” not only as a function of technology, but also as a function of terrain, weather, skills, and technological countermeasures employed by the elements trying to avoid detection.

Regardless of how a detection threshold is defined, adhering to the concept is key to survival. If an element can be seen, it can be targeted. In the historical examples upon which this thesis is based, staying undetected when needed was critical in all cases. To that end, in all the cases, staying below the detection threshold was achieved by keeping elements small (especially when on the move) and using the terrain in conjunction with camouflage. The Boers used clothing in colors that blended in with the natural colors of the terrain, while employing natural vegetation to hide their firing positions. The Finnish soldiers in the Winter War used white camouflage suits in order to avoid detection in the snow-covered terrain. “A good man could wrap his snowsuit around him and hunker down in such a way as to be invisible to a Russian patrol passing ten meters away.”[186] More than fifty years later, the Chechen fighters used the same principles of camouflage by building hidden firing positions deep in buildings, so that the Russians had a hard time returning aimed fire. In all cases, the IW elements kept their fighting elements small enough to avoid detection.

The technology related to detection does not only cover surveillance in the visual spectrum. Transmission of signals from communication devices is a vital indicator of activity. The higher the technological level of an adversary, the higher is the threat of them having a well-developed electronic warfare capability. This technological threat is also related to the way the IW organization must operate.

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184 Ibid, 21.

185 Ibid, 20–23.

186 Trotter, *A Frozen Hell,* 146.

The individual elements must be able to operate without continually transmitting in the electromagnetic spectrum. They must stay below the detection threshold also in this dimension. That will have bearing on how they operate, including command and control, which will be covered later in this chapter.

This leads to the first tactical principle: Avoid detection by staying below the detection threshold.

The element of unit size, as related to the detection threshold, needs further discussion. As has been discussed above, the detection threshold is not an absolute value, but will change depending on factors such as enemy surveillance technology and terrain. Since the detection threshold is likely to change, so must the size of the elements of the organization. Since there is a link between size, combat power, and sustainability, it is not as simple as just shrinking the element size to a minimum. The elements must be able to not only survive, but also thrive in the field for long periods of time. They must be able to inflict damage to the enemy, and they must be able to defend themselves, as well as treat damages or injuries. This is one of the reasons why conventional units tend to be so large. For the irregulars, the correct solution for size is found at the balancing point. The guiding principle for size is to, Be as small as needed in order to avoid detection, and as large as needed in order to achieve combat effectiveness. While this is a vague and general description, it must be in order to cover all potential situations. The optimal size depends on the situation and tasks. Suggested standardized elements will be described in the Organization chapter.

As can be gathered from the above discussion, size should not be static. A force employing IW principles should be able to disperse and concentrate as the situation and missions dictate. This fluidity is described as “swarming” by some scholars. John Arquilla and David Ronfeldt describe swarming in their 2000 RAND study, “Swarming & the Future of Conflict,” as:

> [A] deliberately structured, coordinated, strategic way to strike from all directions, by means of a sustainable pulsing of force and/or fire,

> close-in as well as from stand-off positions. It will work best—perhaps it will only work—if it is designed mainly around the deployment of myriad, small, dispersed, networked maneuver units[187]

Swarming is not a tactic, but rather a doctrinal concept. The hypothesis of Arquilla and Ronfeldt is that although forms of swarming have been used throughout history (for example by the Chechens and the Boers), the technology to fully support it is now available for the first time. The only thing missing then, in order to implement such a change of concept is a change of mind.[188] Although this thesis describes irregular tactics more generally, and does not label it as a "swarming" concept, there are significant lessons to be drawn from the work of Arquilla and Ronfeldt, and that work will be referenced in both this and following chapters.

Another important contribution to the concept of swarming is Sean J. A. Edwards 2005 dissertation, "Swarming and the Future of Warfare." Edwards uses a similar definition of swarming to that of Arquilla and Edwards: "Swarming occurs when several units conduct a convergent attack on a target from multiple axes."[189] Edwards studied a number of historical cases, from as early as 329 BC to as late as 2003, to develop a theory and model for swarming. His conclusions when it comes to factors leading to success are interesting and useful for defining relevant tactics for the purpose of this thesis:

> The bottom line is that when the key components of swarming are present—simultaneity and encirclement—and the swarm possesses specific combinations of three enablers—elusiveness, standoff capability, superior situational awareness—then the swarm stands a good chance of winning.[190]

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[187] John Arquilla and David Ronfeldt, "Swarming & the Future of Conflict," (Santa Monica, CA: RAND, 2000), 8.

[188] Ibid, 5.

[189] Sean J. A. Edwards, "Swarming and the Future of Warfare," (Santa Monica, CA: RAND, 2005), 2.

[190] Sean J. A. Edwards, "Swarming and the Future of Warfare," 131.

Another factor, which is linked to the detection and/or targeting of one's own forces, is mobility. A high level of mobility leads to several advantages for the irregulars:

- Being able to physically outrun the enemy
- Reducing the chance of being targeted, by changing positions faster than the enemy targeting cycle can handle
- Achieving surprise by moving into areas quickly
- Being able to mass and disperse quickly

Therefore, mobility is critical on several levels. Elements need to be able to move from area to area over longer distances in order to avoid being encircled and targeted, but also in order to concentrate forces to attack the enemy. Speed needs to be balanced against the need for stealth, meaning that in some cases, speed needs to be kept low in order to avoid detection. This will be dependent on the environment, including enemy observation capabilities. In order to move effectively, some sort of vehicle, or mobility platform is needed. The Boers used horses, which were uniquely suited to their needs. Their mobility as skilled riders allowed them to mass for an attack, while immediately dispersing thereafter. Even when the British massed over fifty thousand men to hunt down the Boer rebels in 1902, they managed to use dispersion and mobility to escape with most of their force.[191] Although animals will probably be a less than optimal solution on a modern battlefield, there are lessons to be learned: every man has his own means of transportation, which gives the ultimate flexibility; the horse is relatively easy to hide (even in plain sight); and it has limited logistical needs. Any modern mobility platform should ideally have the same qualities.

Mobility is also important at the local level. Even on the defense, movement is critical in order to create uncertainty. The Chechens used this to their advantage when establishing their urban defenses in preparation for the

[191] Arquilla, *Insurgents, Raiders, and Bandits*, 140–141.

Russian attacks. They carried a minimum of equipment in order to be as mobile as possible.[192] They had prepared passages between buildings in order to be able to move as quickly and securely as possible from one firing position to the next, as well as to reinforce elements when needed.[193] "Mortar crews remained on the move constantly. Having fired three or four rounds, they would quickly drive away from the area to preclude effective counterbattery fire."[194] The Chechens also used vehicles to move between areas in town, as well as to move heavier equipment: "Troops armed with anti-tank rocket launchers reportedly traveled through the city in automobiles with the roofs and backseats removed . . . In mountain towns . . . anti-air guns such as the ZPU-2 and ZPU-4 were mounted on truck beds."[195]

Another form of mobility—slower, but still very useful—was the use of ski patrols by the Finnish forces during the Winter War. The Finns had perfected the use of skis, using them to glide effectively and (relatively) quietly through the landscape, while being able to step out of the bindings quickly when needed.[196] Although the speed of ski patrols was low, it was significantly higher than the speed of the Soviet foot patrols. Skis enabled the Finnish patrols to move swiftly to positions where they could ambush Soviet formations, and then quickly move back to the comfort and safety of their own bases.[197] This shows an important lesson regarding mobility: speed must be considered as both an absolute and a relative factor. In relation to the enemy, what matters is to be able to move faster than him, both physically and in terms of his expectations.

This leads to the conclusion regarding principles for mobility: Employ the forces in such a way that they are highly mobile, both locally and between areas.

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192 Oliker, *Russia´s Chechen Wars*, 17.

193 Ibid, 17.

194 Ibid, 21.

195 Ibid, 22.

196 Trotter, *A Frozen Hell,* 147.

197 Trotter, *A Frozen Hell,* 145–149.

Use mobility platforms configured for local terrain and with the lowest possible profile.

The skillful Finnish use of skis to move through the frozen terrain of Finland in the winter is also an example of exploiting local geography and weather (or climate). The physical features of a nation´s territory need to be taken maximum advantage of by the defending force. This does not mean that a defense built on IW principles should be bogged down in a series of static defenses, but the natural obstacles should be used as much as possible to stop, slow down, or channel an advancing enemy. History has proved over and over, from Thermopylae to Salang, that high mountains and narrow passes can be important force multipliers for a defending force. The same advantages can be drawn from dense jungles, swampy areas or rapid rivers.

Another factor is the weather, or climate. Alfred Thayer Mahan wrote of the Transvaal area in South Africa that "there are river beds, but no navigable rivers . . . there is a great deficiency of steady natural water supply. During the rainy season . . . the naked ground fails to retard the running off of the waters, which therefore escape rapidly by the rivers, swelling them to momentary torrents . . ."[198] This shows that not only the terrain, but also extreme heat, cold, wind, or precipitation can be a beneficial factor for the defenders, as long as they have mastered how to cope with the conditions. In Finland, the local soldiers had few problems tackling the cold of the winter of 1939–40. While many of the Soviet invaders were mostly concerned with avoiding freezing to death, huddling around campfires, the Finns could move around freely and pick their targets. This leads to the principle: The IW defense forces must use local terrain and climate to their advantage. They must learn to master the local difficulties, making these challenges strengths for the defenders.

198 Alfred Thayer Mahan, *The Story of the War in South Africa 1899–1900* (New York: Greenwood Press Publishers, 1968), 7.

Linked to the above point concerning geography and terrain, is the need for intimate knowledge of the terrain. Not only in the form of general knowledge of, for example, winter warfare, but detailed knowledge of the terrain; possible travel routes, sources of clean water, possible bivouac areas etc. By having such detailed knowledge, units can hide easier, move quicker, disperse more effectively, and use their weapons better. This goes for both rural and urban terrain. The only way to gain such knowledge is to make sure that the personnel in the organization have a local connection to the area in which they operate. Ideally, they should be living in the area.

Another advantage to a local connection is the access to information. Although it can be dangerous to the civilian local population to involve them in information gathering, there is hardly a more effective way of collecting information about a foreign presence in an area. The locals will easily pick up any changes to the normal situation. In order to exploit this advantage, the defenders need to have established trust with the locals, which that takes time to establish, meaning it must be done before a conflict erupts. Principle: Make sure units have a favorable local connection to the areas in which they will be operating.

Inflicting damage to the enemy is almost as important as avoiding damage to one's own forces. This is based on the premise that in IW, the most important aspect is to avoid defeat. But in order to continue to be a problem for an attacking force, the irregular defenders need to be able to fight and inflict damage, as much and as often as possible. There is a strong link between how to inflict damage and the tools—or weapon systems—the military organization has available. The details of the weapon systems will be covered in the technology chapter. The key factor, no matter which systems are available, is that the personnel can employ them optimally, thereby achieving the maximum effect. The most basic system for any military is the rifle. The Boers managed to use this simple tool in such a way that they gained a definitive edge over the British forces, which were far less skilled. The Boers managed to acquire first-class rifles, as well as smokeless powder, but the weapons would have been

useless without good shooters: “the men who wielded those weapons . . . were mostly tough, hardy frontiersmen who had been riding and shooting since childhood.”[199]

Principle: Use available weapon systems optimally by training the operators to the highest standards possible.

While using basic weapon systems effectively is very important, an IW organization needs to have ways to inflict damage on an enemy from a greater distance than what is achieved by small arms fire. This is also one of the conclusions from Sean J. A. Edwards study: having a standoff capability is one of the three key enablers for the swarm.[200] By using weapons with a significant range, several effects can be achieved:

- The threat to one’s own forces due to exposure to enemy observation and return fire is reduced
- The area that might contain threats to an enemy is significantly increased, meaning he has less chance of covering it all with surveillance assets[201]
- The time needed to infiltrate units into firing positions is decreased

The details of such weapon systems will be covered in the technology chapter. The key point, though, is that modern weapon technology needs to be taken advantage of. While most guerrillas and insurgent groups that fight using irregular principles have limited resources, this does not need to be so for a small state´s organized defense forces. Even modern, long-range guided systems are cheap when compared to the heavy machinery of conventional forces, and will

199 Max Boot, *Invisible Armies,* 186.

200 Sean J. A. Edwards, “Swarming and the Future of Warfare,” 131.

201 This can be a significant problem for a force trying to avoid being attacked. Geometry gives a clear indication: a static unit that faces an enemy with a potential weapon range of 2,000 meters potentially needs to control an area of $3.14x2^2=12.6km^2$. If the weapon range is increased to 10,000 meters, the area grows to $3,14x10^2=314km^2$. While this is a theoretical number, it indicates the vast difference between the two scenarios.

be within reach for most industrialized nations. This leads to the principle: Use precise, long-range weapons to destroy valuable enemy targets from a distance, thus creating uncertainty.

The war cannot only be fought from a distance, though. Some times, there are advantages to staying close to the enemy. “Hugging” the enemy has the advantage of creating extreme pressure in the form of being able to mass small-arms fire on his forces. This is a form of pressure different from long-range targeting. Chechen fighters used a concentration of fire, as well as a combination of weapons, to target Russian armored convoys in Grozny. Small arms fire was directed at supporting infantry, while a combination of rocket-propelled grenades (RPGs) and Molotov cocktails were used to destroy the armored vehicles.[202] The other advantage to staying close to, or “hugging,” the enemy is that he is normally precluded from receiving fire support from aircraft or artillery. By staying within “danger close” distances, the units have to make do with their organic weapon systems. This is especially important when fighting an enemy with air and artillery superiority. Principle: When the conditions are right, take the fight close to the enemy to overwhelm him with fire, and keep him from getting outside fire support.

The last point related to the use of weapons is the least impressive in terms of actual firepower, but is still one of the most feared threats on the battlefield: the sniper. The value of a single highly trained individual with a precise rifle was demonstrated by the Boers, but was even clearer in later conflicts. The sniper could be described as the ultimate irregular warrior: operating alone or in small teams, killing and destroying valuable targets at random intervals, then disappearing like a ghost. In terms of effect per soldier—or per shot taken—the sniper is almost impossible to beat. Snipers add effect to almost all forms of warfare, be it defensive or offensive, operating on their own, together, or in support of other units. The Finns knew this and employed a

202 Oliker, *Russia´s Chechen Wars*, 20.

significant number of snipers in the fight against the Soviets. They used them both independently, raiding in front of their lines, as well as part of the defensive lines, shooting specific targets. The snipers were extremely effective. One of them, Simo Häyhä, is reported to singlehandedly have killed over five hundred Soviets during the war with his rifle—and another two hundred with his submachine gun.[203]

The Soviets have not only been on the receiving end of sniper fire. They used snipers with impressive results on the Eastern front during World War II, especially at Stalingrad. Their snipers racked up hundreds of kills in the prolonged fight in the remains of the city, often engaging in battles with their German sniper counterparts. They even set up improvised sniper schools inside the besieged city, expanding their capabilities.[204] Still, the Russians seemed quite unprepared for the threat from snipers in Chechnya some decades later.

The Chechens used snipers extensively. They operated both alone and as part of patrols, inflicting damage and terror on the Russian soldiers both day and night. “A common sniper ploy was to shoot individual soldiers in the legs. When others tried to help the wounded soldiers, they too came under fire.”[205] While this last tactic is probably ethically questionable for most people, these examples, nevertheless, show the value of well trained and employed snipers.

Although the historical examples from the three conflicts studied in detail in this thesis do not show the use of long-range anti-materiel rifles, such weapons are still an important capacity on the modern battlefield. A well-trained sniper with the right equipment can engage materiel targets such as vehicles at distances well over 2,000 meters. Such a capability underlines the value of snipers even more and shows the potential flexibility for their use.

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203 Pat Farey and Mark Spicer, *Sniping, an Illustrated History (*London: Compendium Books, 2008), 117.

204 William Craig, *Enemy at the Gates: the Battle for Stalingrad (*Old Saybrook, CT: Konecky & Konecky, 1973), 121.

205 Oliker, *Russia´s Chechen Wars*, 21.

Principle: Use snipers extensively, both on the offense and the defense, at all possible ranges and against all relevant targets.

In order to summarize the discussion of weapon systems and their use, it can be stated that the most important factor is to create a threat in as many dimensions as possible. By having the ability to target and destroy all the key elements of the enemy structure from a range of distances under as many conditions as possible, the enemy will be forced to adapt. All that is needed is to keep the enemy unsure of what threats will emerge in any given situation. A dynamic use of the full range of weapon systems available helps create such a situation. Such an approach is what CIA employee Mike Vickers suggested to Charlie Wilson in order to reduce the threat from Soviet helicopters in Afghanistan in 1984:

> Vickers explained that it was not necessary to look for a single weapon to serve as a "silver bullet." The way to defeat Soviet air power was by introducing a symphony of different weapons (authors´ emphasis) that, when put together, would change the balance in favor of the mujahideen . . . all they needed to do was convince the Soviet pilots that this mix of diverse anti-aircraft weaponry existed and was in the hands of the guerrillas. Every Soviet pilot would then know that there was no one diversionary tactic they could rely on.[206]

Principle: Use the full range of weapon systems available, in a variety of scenarios and different engagement distances, in order to create uncertainty.

Correct and timely information is a critical component for an effective military organization. Sean J. A. Edwards list "superior situational awareness" as one of the three key enablers leading to success for the swarm.[207] The value of maintaining good connections with the local population, and thereby collecting information has been covered above. It is also important that all elements of the organization understand that they have information gathering as a central task.

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[206] George Crile, *Charlie Wilson´s War: The Extraordinary Story of the Largest Covert Operation in History (*New York: Grove Press, 2003), 304.

[207] Sean J. A. Edwards, "Swarming and the Future of Warfare," 131.

Without knowledge of the current, it is very hard to predict the future. All available technology must be used to collect pertinent information, but technology can only take us so far. Humans must be trained to collect and relay information as quickly as possible. The organization must establish procedures and systems to refine and spread critical information to the units that need it. In an irregular organization, much more responsibility and decision-making lies at the tactical level, and logically that is where information is needed the most. This also means that information must be spread horizontally through the organization, from element to element, not only vertically back to a higher headquarters. The more time-critical the information is, the more important this horizontal information becomes. Such a way of spreading information has disadvantages: The information will often not have been analyzed and correlated with other sources. Training leaders at all levels to critically evaluate incoming information can mitigate these potentially negative effects. Another potential problem is the spreading of information that can be harmful to the organization, violating operational security (OPSEC). This needs to be countered both by strict procedures and the use of encryption technology. Principle: All elements of the organization must be tasked to collect and relay relevant information. Time-critical information must be spread horizontally to other elements at the tactical level.

One of the most important aspects of irregular warfare is the ability of different elements of the organization to act efficiently, independent of a centralized command structure. Although command and control are not necessarily tactical principles, they are such an integral part of making the organization function that they belong in this chapter. Command and control will be discussed further in the organization chapter.

If the elements of the organization are supposed to spread “like vapor” or “flow like water,” only to reconnect and mass when needed, they need leaders who can operate in such an environment. These leaders need to be supported by an organizational culture that allows such distribution of authority. This does not

mean some halfway “Auftragstaktik,” but fully distributed authority to make the decisions and take the actions needed to succeed. Such an approach will scare many current officers into aggressive denial, and surely cause many deceased generals to gyrate in their graves, but, nonetheless, it is the critical component to such an organization´s success. Such authority does not mean freedom from responsibility. To the contrary, it means more responsibility. Responsibility is linked to authority and will follow the decisions made by the respective leaders.

The Boers made a very loosely organized military force work, at least for some time.

> When called up for service, the burghers showed up wearing their Sunday-best clothes, riding their own horses, and answering to their own elected officers. Boers fought when and where they liked and disregarded orders that displeased them. “With the Boers,” wrote one young burgher, “each man is practically his own commander.”[208]

Although the Boers eventually experienced significant problems keeping their forces together, this goes to show that a military organization can function, in combat, with a very different set of command and control principles than those normally employed in conventional units.

Another irregular organization experiencing success with a high degree of distributed authority was the Chechens during the first Chechen War. Their military leader, Aslan Maskhadov, was a staunch supporter of distributed authority, even though he had over twenty years of experience as an officer in the Soviet Army. His motto was “less centralization, more coordination.”[209] This approach led to magnificent local solutions, enabling commanders at lower levels to execute operations unburdened by unnecessary restrictions from higher headquarters. Eventually, this proved to be a problem also for the Chechens, with different commanders going in different directions.

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[208] Max Boot, *Invisible Armies,* 186–187.

[209] Arquilla, *Insurgents, Raiders, and Bandits*, 258.

Do the problems mentioned in the cases above mean that widely distributed authority is an impractical, or even impossible solution? Not at all: first of all, the deterioration of the organizations happened at a point in time when a conventional organization would probably have long ceased to exist. Sooner or later, an organization will collapse under pressure. Maybe a less formally organized resistance movement´s weakest point is the command and control system. Another factor that makes such an approach relevant for this thesis is that we are interested in designing a military organization, established and trained in peacetime, based on national law and culture. This should mean that the cohesion, as well as control systems, would be inherently stronger than for a less formal resistance movement.

There must also be a distinction between strategic and tactical freedom for the elements of the organization. The strategy is developed centrally, and distributed to the whole organization. All elements must operate within the limitations and towards the overarching goals of the strategy. The need for coordination is done at the "coordinating level," (this will be discussed in detail in chapter 5) incorporating all the elements needed for a specific operation. When it comes to execution at the tactical level, though, there should be as few limitations as possible imposed on the operational units by the central leadership. Principle: Distribute authority and responsibility down to the lowest levels of the organization.

The final element of this discussion is logistics. Even though this does not normally fall under the "tactics umbrella," it is such an integral part of making the organization function that it will be covered here. It is immediately clear that a conventional approach to logistics, with a centrally controlled, heavy supply system, will not function adequately for a highly dynamic irregular organization. Sean J. A. Edwards uses a biological metaphor to explain his idea of how logistics may work in a Non-Linear Dispersed Operation (NLDO), which is probably the most relevant concept available to us: "in conventional war there are a few major arteries feeding sustenance to two opposing fronts; in NLDOs there

is a distributed lattice of capillaries supporting noncontiguous pockets and local networks."[210] This suggests a distributed logistical network supporting the operational network. Sometimes, it might even be one and the same. Elements must take more responsibility for planning and sustaining their own logistical needs while conducting operations. William D. Shannon, in his 2008 Naval Postgraduate School thesis, claims that "solving the puzzle for swarm unit´s [*sic*] logistics sustainment is not insurmountable."[211] He suggests specific solutions "via preplanned caches, aerial resupply, or other indirect means."[212] One of these "other indirect means" can be local support. Another important approach to logistics is to reduce the needs to a minimum. By combining all these methods, the elements will be able to operate in the field for extended periods of time. Principle: Reduce logistical needs to a minimum. Resupply units through a mix of networked solutions, including caches and drops. Use local support when possible.

4. Conclusion

These are the tactical principles, derived from the IW strategy and through analyses of historical examples:

- Avoid detection by staying below the detection threshold.
- Be as small as needed in order to avoid detection, and as large as needed in order to achieve combat effectiveness.
- Employ the forces in such a way that they are highly mobile, both locally and between areas. Use mobility platforms configured for local terrain and with the lowest possible profile.

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[210] Sean J. A. Edwards, "Swarming and the Future of Warfare," 140.

[211] William D. Shannon, "Swarm Tactics and the Doctrinal Void: Lessons from the Chechen Wars," (Monterey, CA: Naval Postgraduate School, 2008), 77.

[212] Ibid, 77.

- The IW defense forces must use local terrain and climate to their advantage. They must learn to master the local difficulties, making these challenges strengths for the defenders.
- Make sure units have a local connection to the areas in which they will be operating.
- Use available weapon systems optimally by training the operators to the highest standards possible.
- Use precise, long-range weapons to destroy valuable enemy targets from a distance, thus creating uncertainty.
- When the conditions are right, take the fight close to the enemy to overwhelm him with fire, and keep him from utilizing outside fire support.
- Use snipers extensively, both on the offense and the defense, at all possible ranges and against all relevant targets.
- Use the full range of weapon systems available, in a variety of scenarios and different engagement distances, in order to create uncertainty.
- All elements of the organization must be tasked to collect and relay relevant information. Time-critical information must be spread horizontally to other elements at the tactical level.
- Distribute authority and responsibility down to the lowest levels of the organization.
- Reduce logistical needs to a minimum. Resupply units through a mix of networked solutions, including caches and drops. Use local support when possible.

The principles described above are intended as guidance to a further development of the irregular organization. As was described in the introduction to

this chapter, the tactical principles are based on the IW strategy. Building on the tactical principles, we will move on to the organization, describing how it can be designed in order to support the tactics and strategy optimally.

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V. ORGANIZATION

A. THE BASIS FOR THE ORGANIZATION

A military organization specializing in irregular warfare needs to be constructed in such a way that it supports the overarching strategy, as well as the tactics, which have been defined in previous chapters. It is paramount that there is a connection between these different levels, and that the lower levels support the upper levels, and not dictate the outcome. To make this logic even clearer: the strategy and tactics must dictate the design of the organization, not only in general terms, but in the details of the organizational design. There can be no part of the organization that works at cross-purposes with the overall strategic goals, or works against the tactical principles. The irregular defense organization of a small nation is already working against the odds: preparing to fight against numerically stronger opponents. While larger conventional militaries might work less than optimally and still get the job done simply due to overwhelming power, such is not the case for a small organization. It must be designed to work well, even under the extreme conditions that exist in war.

As discussed in Chapter 2, a crisis where an aggressor challenges the smaller state's integrity and sovereignty can be seen as a series of phases: incidents, aggression, invasion and occupation. Based on these layers, a defense strategy can be divided into different layers of defensive actions and capacities to uphold integrity and sovereignty. From this perspective, a state should be able to uphold integrity in all dimensions, including air, land, sea and the information domain. The air and sea domains are the daily business for the Air Force and the Navy. This chapter focuses on the land domain. There is, however, no reason to think that the general irregular warfare concept, based on

the findings in previous chapters, will not be relevant also in the other domains, at least in some environments.[213]

Another factor that must shape the design of the organization is linked to the main theme of this thesis: defense of *small states*. Such states do not have unlimited resources in terms of economy or manpower. This means that the organization must be designed to be lean, achieving maximum effect within the design boundaries.

Technology, or equipment, is an important part of an organization. For example, a state without an air force will have to fight differently than a state that can rely on air transportation and close air support. The same goes for advanced ground-based weapon systems. The level of connectivity in the form of communication technology might influence the size and dispersion of the different parts of the organization. This does not mean that the technology should dictate the organization, just as tactics should not dictate strategy. The technology supporting the organization and tactics will be described in the next chapter.

B. PRINCIPLES

The guiding principles for the organization are based on the analysis in the previous chapters, and especially chapter 4 regarding tactics. From the list of tactical principles at the end of chapter 4, these shaping factors can be derived:

- The organization needs to be based on operational teams small enough to avoid detection
- Yet these teams need to be large enough to survive and be combat effective

[213] Authors´comment: One such example could be the use of numerous small craft operating in complex littoral areas, threatening enemy operations both on land and at sea. A specific example is the Tamil Sea Tigers´ use of swarms of low-tech small craft in their fight against the Sri Lankan Navy.

- The organization needs to be able to concentrate effects by using several of these teams in synchronized ways. The exact way this happens is defined by the situation, and will change
- The different parts of the organization should have local connections in order to know their areas well, both in terms of geography and population
- The personnel need to be highly skilled at their different specialties
- There needs to be a high degree of creativity in the organization in order to keep the enemy guessing and unsure of the nature of the threat to him
- Information needs to flow effectively through the organization
- Authority—and following that, responsibility—needs to be distributed down to the lowest levels
- The need for an elaborate logistic system must be reduced to a minimum

Boiling the above list down to the absolute essence of capabilities, the organization needs to be able to:

- Collect information
- Attack effectively
- Split up into sufficiently small elements
- Move efficiently and stealthily
- Regroup

All this needs to be done in such a way that it can be sustained for a prolonged period.

In addition to these principles, certain other shaping factors will also be addressed:

- Sufficient parts of the organization need to have a short enough reaction time to respond to sudden limited crises; e.g., terrorist attacks or other forms of surprise attacks.
- The need for central enablers in order to support the distributed parts of the organization
- The tendency for widely dispersed organizations to break up when being under extreme pressure for an extended period of time

These principles and factors will be the basis for the design of the organization.

Finally, it is important to remember that the organization in question is not designed to be just an insurgency or guerrilla movement. This is a planned, prepared, military organization, established and trained in peacetime, just as any conventional military. It will work under strict guidelines set by the political leadership of the country. Its members will be members of the general populace, either based on voluntary duty or general conscription. As a result, the organization will not to the same extent as insurgencies generally are, be limited by recruitment and growth during a campaign.

C. THE ORGANIZATION

The following analysis will look at the whole organization, basing the suggestions on historical examples, as well as academic papers. The goal is to describe a functional organization from the lowest tactical level to the military strategic level. The levels of the organization will, for the practical purposes of this thesis, be limited to three:

1. The tactical core level – the smallest units operating autonomously
2. The coordinating level – the level responsible for the smallest units working in synchronization to achieve their given goals

3. The central level – the level responsible for strategic and operational guidance, as well as the central enablers for the fighting elements

1. The Basis for the Organization – The Team

This element is planned as the standard minimum fighting unit. This does not mean that it will never split up—it certainly will have to, especially for mobility purposes in order to stay below the detection threshold when needed—but it will be the smallest basic organic fighting element. This includes the lowest level of decision-making authority and responsibility.

The size of this element (hereafter described as the “team”) must, in accordance with the analyses in the previous chapter, be as small as possible, and as large as necessary. While this is a somewhat vague description, it implies being small enough to avoid detection, and still large enough to have an adequate “punch,” as well as resilient enough to be combat effective over extended periods of time. This could be described as the equilibrium point between stealth and destructive power.

Looking at equivalents in modern militaries might provide an indication of a functional size for such a team. While most modern armies have fire teams consisting of eight to ten soldiers, these teams are not necessarily comparable, since they seldom operate autonomously, but rather within the structure of a platoon-sized element (which often never leaves the confines of the company, or even the battalion). More relevant is the size of the U.S. Army Special Forces ODA teams, operating in teams of twelve. These teams operate independently over long periods, and have organic capabilities both for fighting and sustainment.

Historical examples can also give an indication of successful practices. While the Boers initially started out with rather large elements, the Kommando consisting of 100 to 150 fighters, they eventually had to decrease the size of

these elements to be more widely dispersed.[214] Still, the size was probably more like a conventional platoon than a squad. The relatively large size of the Boer elements might have been suitable due to both geography and the technological level of their adversary, the British Army. The terrain obviously allowed the Boers to move these significant elements effectively, without being seen, into favorable positions. At that time, there were no airborne surveillance systems, and no effective tactical-level radios. This means that both detection and communication was much harder than it is today. As such, it might have been more useful for the Boers to work in larger groups in their time than it is for modern organizations using the same tactical principles.

The Finns in the 1939–1940 Winter War had a very flexible approach to element size. This might have been caused by a purely task-organized approach to irregular operations, as they were all part of a conventional army, albeit using irregular tactics at times. Sometimes, the Finns sent out individual snipers, sometimes two-man teams: "Two of Majari´s men formed a hunter-killer team: one man carried a powerful flashlight, the other a Suomi submachine gun. These two prowled the woods, locating small isolated groups of Russians or individual stragglers."[215] Still, the Finns mostly operated in larger groups around platoon size. Again, this might have been caused by the terrain, limitations in communications technology, or a need for the combined firepower of a larger force. Still, it is interesting to see a larger emphasis on smaller elements than in the Boer War.

In the first Chechen War, fifty years later, there was a change in organization, compared to the two previous examples. Olga Oliker describes the organization in detail:

> . . . nonstandard squads were the basis of the rebel force. Such a squad might include two men with RPG-7 or *Mukha* (RPG-18) shoulder-fired anti-tank grenade launchers, two with machine guns,

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214 Arquilla, *Insurgents, Raiders, and Bandits,* 132–139.

215 Trotter, *A Frozen Hell,* 109.

> and possibly a sniper. Alternatively, it could comprise one man with a machine gun, one with an RPG, and possibly a sniper, backed up by one or more riflemen, automatic riflemen, ammunition bearers, and/or medics/corpsmen. Approximately three such squads, with support, made up a larger 25-man cell. The support included one or more medics/corpsmen, three ammunition/supply personnel, three litter bearers, and two SVD-armed snipers. Three 25-man groups made up a 75-man unit. Each of the latter was also allocated one mortar crew.[216]

Based on the above description, the basic Chechen fighting unit was a squad of approximately five fighters. When compared to the larger units of the Boers and the Finns, this change seems to be caused in part by necessity, and in part by opportunity. The necessity comes from the need to move efficiently and unseen through the urban areas, where both the sensor capability and the communication capability of the Russians were much better than in the previous conflicts. In response, the Chechens seized the opportunity to use simple communication technology in the form of handheld two-way radios at the squad level, enabling them to coordinate the actions of multiple teams without being physically in touch.[217]

Arquilla and Ronfeldt also discuss the size of this key building block of the organization:

> Since the pod is the suggested elemental force in ground force swarms, we suggest beginning with the most basic military unit: the platoon of roughly 40–45 soldiers, with ten light strike vehicles per pod. Since there appears to be no compelling reason to eschew the military penchant for groups of three, three pods would then form a cluster . . .[218]

Arquilla and Ronfeldt also illuminate an interesting and important factor in the design of these “pods”: the question of homogeneity or heterogeneity. There

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216 Oliker, *Russia´s Chechen Wars 1994–2000,* 19.

217 Ibid, 19.

218 Arquilla and Ronfeldt, “Swarming and the Future of Conflict,” 62.

are strengths to all basic elements being similar, but there might also be a need for specialization, and complementing capabilities.[219]

Edwards takes a different look at the size of a basic unit in his dissertation, saying that "These C2 characteristics hold true for all NLD forces: . . . Basic unit is the squad . . . Units are semi-autonomous and follow mission-order system."[220] It must be assumed that by "squad" he means a unit similar in size to a regular infantry squad, meaning eight to twelve men.

In addition to the insight that can be gained from the historical cases and the previous academic studies, it is important to look at which capabilities a team needs to have. This will necessarily have an impact on the size of the unit. This analysis is primarily based on the experiences of the authors, working in and with small autonomous teams for a number of years. A capable fighting team needs to fill the following positions:

- A team leader. The task of leading the team must be the primary task for a designated person. This person can also have secondary specialties, but his main task is to lead.
- A second-in-command (2IC). If the team is split, or the leader steps up to lead several teams together, the 2IC steps up as the team leader. The 2IC needs to be fully skilled to cover all leadership functions at the team level.
- A communication specialist, trained in using and maintaining the team´s communication equipment (beyond normal user level).
- Snipers (2). In addition to engaging soft and hard targets, they are also skilled in observation techniques. The snipers can work as a pair, or individually.
- A medic, tasked at preventive medicine and treatment of injuries.

219 Ibid, 61.

220 Edwards, "Swarming and the Future of Warfare," 164.

- A JTAC (Joint Tactical Air Controller) to guide air to ground fires as well as direct other externally delivered fires
- En explosives specialist, capable of both offensive use of explosives and mine / IED disposal.
- Heavy weapons specialists (3), delivering organic fire, ranging from recoilless cannons, to mortars or missiles, depending on the team setup.
- An information/intelligence specialist, trained at collection, basic analysis and dissemination of information.

This brings the team to a total of twelve members. The team can easily split into two six-man teams or three four-man teams for specific tasks or transportation. Each member of the team also has a designated fighting buddy. All team members have secondary (some might even have tertiary) tasks, depending on the situation. While there needs to be a high degree of specialization on such a small team, there is no room for compartmentalization. Sometimes, one of the team members will need support by others, and in other cases a position needs to be filled by someone else due to injuries.

This organization is not meant as a set-in-stone template, but more as a guide or a starting point for the organization. As the historical examples have shown, different conditions might lead to different solutions. The questions raised by Arquilla and Ronfeldt regarding the degree of homogeneity of the teams should also be evaluated. In some cases, there might be a higher degree of specialization in certain teams. On the other hand, there is a level of flexibility within the team as described above. The heavy weapons specialist might operate a mortar in one team, a guided anti-tank missile in another team, and an anti-aircraft missile in a third.

Modern technology is another reason why the suggested team size is as described. By employing modern weapon systems, including external fire support, a relatively small team can inflict significant damage to an enemy. By

using modern communications technology, each person on the team can communicate freely and securely with the others, coordinating actions in real-time. This gives the team itself the option of dispersing. In addition, the team can coordinate both offensive action and mutual support with other teams in the area (within weapons or mobility range). Finally, modern technology is also a reason why the teams should not be larger. The widespread use of surveillance technology, from satellites, planes, unmanned aerial vehicles (UAVs), and ground-based sensors, means that staying below the "detection threshold" is harder than ever. For this reason, the size of the team should be kept as small as possible, balancing stealth against "hitting power."

2. The Coordinating Level

The coordinating level is everything between the tactical basic element and the central level. This is the level—or span—where the central guidelines are transformed into action, deciding who does what, and it is where all the coordination happens. In a conventional organization this is a huge span, involving a series of leaders and subordinates. In a small state´s irregular force, it might not involve that many levels or echelons.

Even though this thesis does not describe the chosen irregular approach with its following tactics as "swarming," there are significant similarities between the two approaches. Most of the analyses done on, and descriptions of, "swarming organizations" are also applicable for the organization described in this chapter. While the authors do not necessarily agree with the fact that all attacks need to consist of "several units [which] conduct a convergent attack on a target from multiple axes"[221], this should certainly be part of the irregular toolbox. Neither do the authors agree that attacks need to involve "pulsing where units converge rapidly on a target, attack and then re-disperse"[222], but again, the irregular forces need to be able to operate that way as well. As such, it can be

221 Edwards, "Swarming and the Future of Warfare," 2.

222 Ibid, 2.

said that swarming, according to the definitions of Arquilla and Ronfeldt, or Edwards, is an important and shaping part of irregular tactics, which in turn will shape the organization.

Those tactics that do not fall under the definitions of swarming include isolated attacks on key enemy installations, infrastructure or personnel, which do not involve coordination in time or space between units. Such activities are not in any way contradictory to the tactics or organization based on swarming; they just consist of much less coordination and planning between elements. As such, an organization that masters swarming will also master these less complicated operations. This is why the authors of this thesis base a significant part of the analysis of the organization on swarm theory, especially when it comes to the coordinating level of the organization. To support this analysis, lessons from the historical cases will also be used as a starting point.

The Boer organization was built on a militia system, based on recruiting groups of men to defend their local areas. Their training was rudimentary, but their skills in terms of shooting, horsemanship, and survival were excellent. Their significant numbers were due "to a conscription system that called upon all males between sixteen and sixty to serve in small *Kommando* units, usually with 100 to 150 riders in each."[223] An officer, who they elected themselves, led these units.[224] The commando leaders reported to a general, who then reported to the Boer republic commanders.

Their organization was extremely flexible—it was an example of the living swarm that has been described in chapter 4, one capable of bringing together the manpower to mount an attack, break up again to move independently, and then reconnect at another location.[225] Mahan describes this in some detail, portraying raids in the Natal territory:

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223 Arquilla, *Insurgents, Raiders, and Bandits,* 132.

224 Boot, *Invisible Armies,* 186.

225 Mahan, *The Story of the War in South Africa*, 203.

> These, though simultaneous in execution, and therefore mutually supporting, were made by bodies apparently individually independent; sharing in this a characteristic commonly met in the Boer operations, and facilitated by their individualistic habits of life, their knowledge of the country, and their freedom from the organic interdependence which to regular troops becomes a second nature. Every Boer organization seems susceptible of immediate dissolution into its component units, each of independent vitality, and of subsequent reunion in some assigned place; the individuals passing easily . . . among the population . . .[226]

The same lack of structure that aided flexibility was also a problem: "Boers fought when and where they liked and disregarded the orders that displeased them."[227] Their lack of military structure, which helped them in terms of avoiding a conventional approach to operations, impeded their ability to function predictably and effectively at all times. This relaxed connection to the overall effort also meant that the units were more likely to desert when they felt like that was the most sensible thing to do from their perspective. The desertions were to put significant strain on the Boers who kept fighting, both in practical and psychological terms. Even Boer general Christiaan de Wet´s own brothers were among the "hands-uppers" who ended up turning against their own and joining the British side.[228] "These deserters were our undoing . . ." according to de Wet.[229]

Mahan was skeptical of the way the Boers fought, apparently because it was supposedly a less developed form of war:

> This capacity for undergoing multifold subdivision . . . is characteristic, in fact, of the simpler and lower forms of life, and disappears gradually as evolution progresses to higher orders. In all military performance, it is not the faculty for segregation that chiefly tells. It is the predisposition to united action, the habit of mutual concert and reliance. By this, concentration of purpose . . . and concentration of action . . . is the secret of success in war.

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226 Ibid, 203–204.

227 Boot, *Invisible Armies,* 187.

228 Ibid, 194.

229 Ibid, 194.

> Individual, intelligent self direction is not, however, thereby excluded. The two are complementary elements of the highest personal efficiency; but they must be regarded in their due relations and proportions.[230]

Still, the concentration of purpose and action that Mahan describes in the above quote is exactly what should be strived for. In a way, Mahan´s description of the disadvantages of segregation and advantages of concentration is almost a description of swarming.

The Boers were, at times, very successful in their operations. It is, however, unlikely that their actual way of organizing themselves is applicable today. The reasons for this are the same as were discussed regarding the basic unit earlier in this chapter: Surveillance and communication technology. Still, there are two important lessons to be drawn from their experiences:

1. When elements of the organization have a clearly uniting purpose, they can work towards a common goal without communicating frequently, or undue central control
2. A lack of formal structure will likely contribute to organizational breakdown after prolonged times of intense pressure

The Finnish organization was unlike the two other examples, in that it was based on a completely conventional organization. The fact that the Finns fought in a variety of task-organized groups, ranging from pairs to company-sized, does not change the fact that they originated in standardized battalions. This meant that the Finns to a certain extent could have the best of both worlds: the flexibility and creativity of irregular warfare tactics, combined with the proven command structure of conventional units. This might be the reason that the Finnish organization never fell apart,[231] even when under extreme pressure, especially at the end of the war. Another explanation for this might of course be that the

[230] Mahan, *The Story of the War in South Africa 1899–1900,* 204.

[231] The fact that certain parts of the Finnish defensive lines went into disarray locally when under heavy attacks, does not in our view count as organizational collapse. (Authors' remark)

Winter War lasted only three and a half months, which is a short conflict when compared to the years of fighting in South Africa or Chechnya.

The conventional backbone also enabled the Finns to (relatively) quickly move large elements to a specific place, where they then could fight in a more irregular manner. One example of this is the battle of Suomussalmi, lasting from December 12, 1939 to January 8, 1940: Colonel Hjalmar Siilasvuo was tasked to handle a significant advancing Soviet force:

> His regiment, JR-27, was now the nucleus of an ad-hoc brigade-strength task force whose mission it was to destroy the 163d Division—not just stop it but destroy it. That was a tall order, since the enemy, in addition to being numerically superior, was plentifully supplied with tanks and artillery. JR-27, by contrast, had no heavy weapons at all, not even a single antitank gun, and was still without its full inventory . . . What JR-27 did have was plenty of skis and men who knew how to use them . . . If Siilasvuo did not have firepower going for him, he had the next best thing: mobility.[232]

The battle of Suomussalmi turned out to be one of the most successful for the Finns. Under Siilasvuo´s leadership, the Finnish forces outmaneuvered the heavy Soviet forces, which were limited to the roads. The Finns again established small task-organized elements, attacking the long convoy at several places, from several angles at the same time, supported by mortar fire and snipers. And then they repeated it all over again, some days two or three times a day. Their goal was to cut the road, so that the 163d Division could be reduced to a number of less threatening elements.[233]

The battle of Suomussalmi might well be one of the better historical examples of “swarming” in practice. This was a case of total envelopment, superior situational awareness, coordinated attacks from several angles, using both close combat tactics and stand-off weapons, and also the use of “pulsing” attacks.

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232 Trotter, *A Frozen Hell,* 154.

233 Ibid, 154–157.

In the end, Suomussalmi resulted in complete Finnish victory. The Soviets lost 27,500 soldiers, 43 tanks, and 270 other vehicles. The Finns, on the other hand, lost 900 dead and 1,770 wounded.[234] The Finns also gathered significant amounts of usable (and much needed) equipment: "four dozen pieces of artillery, 600 working rifles, 300 functional machine guns, a few mortars and salvageable tanks, and a motley but welcomed assortment of trucks and armored cars."[235]

The downside of the conventional organization, upon which the partially irregular Finnish effort was built, was precisely that it was conventional. While the irregular actions were many, and clearly contributed to delaying the eventual Soviet victory, the preponderance of the Finnish army operated in a conventional manner, because this is what its organizational structure impelled it to do. When operating conventionally, staying static in the pre-established defense lines, the under-equipped Finnish forces had to give in to the Soviet massive push—it was only a matter of time. The first chapters of this thesis have shown that a smaller nation should choose an irregular strategy when attacked conventionally. The Finnish strategy was based on a conventional defense, partially carried out by irregular tactics.

This leads to the following lessons from the Finnish Winter War:

1. A more formal structure, such as normally existing in a conventional organization, will probably be advantageous, especially for prolonged irregular organization. This formality is in terms of clearly defining purposes, command relationships, and dividing tasks.
2. When deciding to go the irregular route—go all the way. Irregular tactics in support of a conventional strategy is still a path to defeat for a small state.

234 Trotter, *A Frozen Hell*, 169.

235 Ibid, 169–170.

The Chechen organization above team level has been described in a previous section of this chapter. According to Oliker, the basic five-man squad was joined by two others, plus a support team, to make up a 25-man cell.[236] This can be compared to a conventional platoon, albeit slightly smaller. The composition of the support is also interesting; apart from the two snipers, they were basically logistic support to the teams: medics, litter bearers, and ammunition/supply personnel.[237] These platoon-style cells were again joined in threes, making up a 75-man company-style unit. A mortar crew also supported this unit.[238]

When analyzing the Chechen coordinating level, it is important to look not only at the composition of the organization, but also at how it functioned. Although the Chechen "company" might look like a slightly smaller version of an infantry company, it operated in a completely different fashion. Again, it is important to have in mind the words of Chechen commander Aslan Maskhadov: "less centralization, more coordination."[239] The local commanders had an extreme degree of flexibility when it came to the practical execution of the attacks. Maskhadov trust in his personnel was tremendous, maybe because he was very confident in their shared overall goals.

The second part of Maskhadov´s quote was the key to success, though: intense and detailed coordination between units on the ground. The irregular approach of the Chechens did not mean that they were unstructured or sloppy in their preparations; quite to the contrary. This is how Oliker describes the Chechen preparations before the initial Russian attack on Grozny:

> The rebels divided the city into quadrants (the city´s managers and planners had been involved in developing its defense). Within those quadrants, 75-man units deployed along parallel streets with the snipers in covering positions. One 25-man subgroup, which

236 Oliker, *Russia´s Chechen Wars 1994–2000,* 19.

237 Ibid, 19.

238 Ibid, 19.

239 Arquilla, *Insurgents, Raiders, and Bandits,* 258.

> included the unit command, deployed in smaller, six- or seven-man formations in the lower stories of buildings along one side of a street (to avoid crossfire and to establish escape routes). The other two 25-man teams deployed similarly in basements and lower stories at the point of entry to the ambush site. From there they could seal off the area and reinforce their compatriots, as needed. In some cases they also mined the buildings at the point of entry. As Russian forces approached, the entry-point teams notified the rest of the unit by Motorola radio—one for each six- or seven-man formation. Then, the command gave the order to seal the street and the attack began.[240]

These preparations reveal the level of professionalism of the Chechens, probably guided by a number of fighters who had been trained by their Russian enemy during their mandatory military service. It also goes to show that Mahan was at least partly right, when he stated that a military organization must strive for unity, and not simple individualism.[241] The keys here are unity in terms of goals, tight coordination of effort, and then a large degree of freedom regarding all the other details that do not need to be coordinated.

From the descriptions of the Chechen effort, the following lessons can be drawn:

1. Things that need not be controlled in detail should be left to subordinate commands to decide.
2. Detailed coordination in time and space is key to success when several teams are working together in the same area.
3. A standardized organization seemed to work well for the Chechens, providing enough predictability, and still flexibility.

Arquilla and Ronfeldt´s description of the “pod” and “cluster” has been presented previously in this chapter under the section “the basis for the organization—the team”: a 40–45-man pod, joining in threes to form a 120–135-

[240] Oliker, *Russia´s Chechen Wars 1994–2000,* 19–20.

[241] Mahan, *The Story of the War in South Africa 1899–1900,* 204.

man strong cluster.[242] This is, as Arquilla and Ronfeldt also point to, very similar to the organization of today´s infantry platoons and companies. These new organizational elements are envisioned to use light strike vehicles for mobility, with approximately 4 personnel per vehicle.[243]

The similarity to a conventional organization stops, though, at the company/cluster level. Arquilla and Ronfeldt see no need for any larger standardized organizational elements in their picture of future swarming warfare:

> Simply put, under a swarming doctrine there would be little need for the existing array of battalions, regiments, brigades, divisions, or corps. These forms of organization are designed for delivering and sustaining mass on linear battlefields. Swarming is about creating pulsed masses of fire and force at chosen moments, not continuously. The basic deployment of the swarms should be a wide dispersal—a fundamental doctrinal concept that runs counter to massing.
>
> In this view, swarming pods organized into networked clusters, with an ability to engage from all directions simultaneously, could reasonably be expected to defeat a battalion-sized opponent (i.e., a 750–900 man force) operating along traditional lines.[244]

This idea of just having two standardized unit levels; the pod and the cluster, and then forming groups of however many clusters you need to solve a task, will probably be deemed impossible by many. The massive span of control, and units having to fight as parts of different organizations, will certainly produce challenges. These challenges can be overcome, though, by approaching not only tactics, but also command and control in an irregular way.

Edwards states that “It is beyond the scope of [his] paper to detail what a table of organization and equipment (TOE) should look like for an organization designed for swarming and other NLDOs [non-linear dispersed operations].”[245] In

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242 Arquilla and Ronfeldt, “Swarming and the Future of Conflict,” 62.

243 Ibid, 62.

244 Ibid, 62.

245 Edwards, “Swarming and the Future of Warfare,” 168.

spite of this statement, he suggests a number of important ideas for such organizations:

> I believe the basic topology of a swarm organization should be decentralized network . . . In order to maximize the flexibility but also minimize the bandwidth required, the basic topology should probably be series of star networks connected between their hubs. Each local star network can be called a cluster. Local clusters can be connected in a number of ways, ranging from a chain . . . to an overall star design, depending on the terrain, enemy, mission, etc. The point is the overall organization is very flexible and dynamic - if isolated friendly units are encountered they can be added to the network and synchronized to start sharing and receiving information; if a backbone connection between to two cluster heads is broken a new backbone connection can be established with another node in the severed cluster.[246]

Edwards goes on to say that he thinks this type of organization is probably not functional above the company level because of signature and mobility challenges.[247] He also describes the need for a flexible organization:

> In some missions all the tactical military units might be dynamically networked in this manner; in others, perhaps a hybrid hierarchical/network organization may be required. Each mission and environment where friendly forces intend to employ NLDOs will demand a different solution. The important point to realize is that units will need to be modular so they can be easily task organized.[248]

This flexibility is one of the key tenets of irregular warfare. Flexibility and creativity must be important elements of the organizational culture. The flexibility to use the force needed, in the way that is needed to achieve the goals, given the current situation, is the whole idea upon which irregular warfare rests. All the historical cases have shown that a lack of rigid doctrine was the best way to succeed. Still, it is important to point to the pitfalls of creativity leading to chaos. An irregular organization might need an even higher degree of control

246 Ibid, 168–169.

247 Ibid, 169.

248 Ibid, 169.

mechanisms than a conventional one, but not the same type. Sean J. Edwards thinks that clearly stated common goals are more important than a conventional command structure: “Unity of Command should change to Unity of Effort.”[249]

Suggested organization. Based on the lessons drawn from the above analyses, it is possible to suggest an organization for the coordinating level. The key element will be the twelve-man team. These teams should then be organized in groups. The size of these groups should depend on the environment, including the tasks, the threat, and the geography. For practical peacetime administrative purposes it might be valid to have a standardized setup, but this should not be reflected in operational training or live operations.

Instead of having a dedicated “company” commander with his accompanying staff in charge of such a group, the task of local coordination should go to the team commander best suited for the task. Any commander should know the basics of leading one level up anyway, so this should not be too different from today´s doctrine. The team of the group commander then assumes a supporting role for him in his new function. The more complex the operation, the more the team switches to a leading role, away from a fighting role. For a simpler operation, the leading team can assume their normal tasks. The team 2IC steps up to take charge of the team while the commander is in charge of the whole group. That way one person does not lead at two levels at the same time. An example of a group can be seen in Fig 1. In this case there are a total of ten teams working together, with one central team in lead. All the teams are connected to the leader team, and coordinating with the other teams as needed. Information flows between teams as needed.

[249] Ibid, 146.

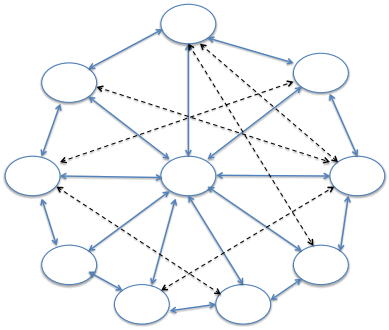

Figure 1. Example of Group

At some point, either due to the fact that too many teams for one node to control are needed for an operation, or that an operation is naturally split geographically, several groups can work together. In order to relieve the team commanders of receiving too much information, coordination between groups is then done at the group commander level. The group commanders also coordinate with higher-level headquarters and potentially central enablers as needed. An example of such organization can be seen in Fig 2. Again, the lead node is decided on the basis of who is the better suited commander.

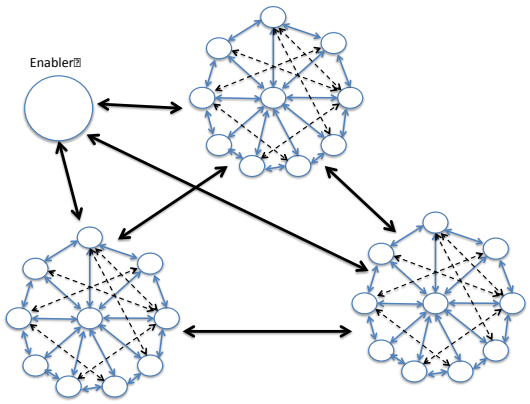

Figure 2. Example of Larger Organization

Some might argue that it is madness to let team commanders lead complex company- or even battalion-sized operations. The suggestion is something else: that you have potential higher-level commanders who often lead teams. The leaders at all levels in the proposed organization need to be highly skilled and trained. As they progress through education, training, and experience, they should be qualified at different levels. Rank and pay could follow qualifications, not position. This way, there will be several potential group leaders at all times in the organization. The best suited one steps up and takes charge.

At other times, there might not be a need for this type of hierarchy. Areas can be geographically divided, so that each team or group has its own area of operations with a high degree of freedom. A unit might even have several areas, with one operating area for the team, and one or more target areas. Several units can even share target areas to increase the effect on the enemy. The units can then operate freely, only coordinating with neighboring units as needed. The same can be done by coordination in time, rotating several units through an area with the same tasks. Again, coordination and unity of effort are more important than the detailed execution chosen by each team.

Local connection. One of the tactical principles derived in chapter 4 is that the fighting elements should have a local connection. This is to increase knowledge of the terrain, both physical and human, in order to move and shoot efficiently and undetected, while also having an optimal situational awareness. This means that an adequate number of teams with the necessary support should be organized in a geographical area. The size of the total force should vary according to the size of the area, the terrain, and the relative importance on a strategic level. If needed, an area can be reinforced with elements from another area, either permanently or on an ad-hoc basis. This is probably most relevant for areas with high strategic importance but low population density. Ideally, this should be on a permanent basis, so that the reinforcements have the opportunity to train in the areas that they will operate.

3. The Central Level

The central level is where the military strategy is formulated and distributed to the operational units. It might also be a level where some units or capabilities are held in order to be able to strategically influence. It is hard to find relevant examples of the central strategic leadership of irregular operations that can be applied to national level defense today.

The Boers´ Kommando leaders reported to generals, who again "were direct subordinates to one of the two commanders-in chiefs of the Boer republics."[250] Still, it seems that the central leadership was lacking, and most of the decisions on strategy were left to the generals, or their subordinate commanders. This lack of direction seems to be a reason why Christiaan de Wet and his superior, General Piet Cronje, chose completely different approaches when faced with a large British force advancing on their positions at Paardeberg in early 1900. Cronje chose to stay in defensive positions, while de Wet chose the same offensive irregular tactics that had worked for him before. Cronje ended up surrendering to the British with his whole force.[251] Such significantly different approaches between two generals indicate that the central strategic level was lacking for the Boers.

The Finnish organization has been covered in the previous section. They had a conventional organization, which at times fought brilliantly using irregular tactics. It is hard to draw any lessons from their military strategic level that could apply to an irregular organization. It might be said that the Finnish example is a case where employing a defense strategy supported by a combination of irregular and regular tactics has been tested. In that case, it is not an example of a successful approach, as the Finns clearly lost in the end.

The Chechens had a central strategy, and it was clearly irregular. Aslan Maskhadov, who was their key military leader in the first war, had the gift of being

250 Fabian, "Professional Irregular Defense Forces," 58.

251 Arquilla, *Insurgents, Raiders, and Bandits,* 133–134.

a skilled tactician and strategist at the same time. Arquilla describes Maskhadov in his book *Insurgents, Bandits and Raiders*: “Of all the masters I have surveyed in this book, Maskhadov showed the greatest capacity for empowering networks and building a concept of operations around the notion of swarming.”[252] But Arquilla also says that Maskhadov´s lack of control of his network eventually led to the defeat of the Chechens: “In this respect Maskhadov´s tale is a profoundly cautionary one for those who embrace notions of networking: what you create you might not be able to control.”[253]

Even though the real problems of the Chechens surfaced after the first Chechen war, they are very relevant to this thesis. Winning the first war by inflicting so much pressure on the Russians that they finally left did not ensure a lasting peace for the Chechens. Different commanders such as Shamil Basayev had their own ideas of the future for Chechnya, and ran operations that were not cleared with the central military leadership. This again points to a central factor when creating an irregular military organization: it initially must be controlled, in peacetime, then through conflict, and back to peacetime again.

The central leadership must establish themselves in peacetime, creating the basis for a strong, healthy organizational culture permeating all parts of the organization. While the irregular organization is built on authority with its accompanying freedom and responsibility pushed down to the lowest levels of the organization, this does not in any way point towards anarchy. This freedom is based on trust, and trust is earned over time. The central leadership should establish a control regime in order to make sure that all elements of the organization are up to the tasks they will be given. This control regime goes naturally hand-in-hand with education and training, which should also be part of the central portfolio.

252 Arquilla, *Insurgents, Raiders, and Bandits,* 275.

253 Ibid, 275–276.

Most important, though, once the organization is established, is the ability to make strategic decisions in wartime. This should, as at all levels of the organization, be issued as guidance to the different area commanders, with the largest possible latitude in the practicalities of execution. Only when coordination between areas is needed in terms of time or space, should commanders be given specific instructions. The outcomes are what should count, not the who and how.

As mentioned in the introduction to this section, there are certain elements that might be better retained at the central level. This is either due to their strategic effect, or the lack of numbers of personnel or equipment. This does not necessarily mean that these elements need to be centrally positioned, but they need to be centrally controlled. In some cases, they might also be pushed out into specific regions when needed. Examples of such central enablers are:

- Intelligence services. The organization will generate enormous amounts of information. Some of this information is shared directly at the tactical level, but it is also pushed up through the reporting chain. Someone needs to brief the central decision makers on the overall situation, providing them with the best possible basis for their decisions. This means there needs to be one central intelligence hub. This does not in any way preclude a widely distributed intelligence network, with both collection and analytic capability pushed down to the lowest levels of the organization.
- Medical facilities. While the levels of medical training need to be very high at all levels of the organization, advanced treatment capabilities cannot be distributed below a certain level. Depending on the size and the economy of the state, the numbers of such advanced facilities may differ, but the most advanced will probably have to be centrally controlled. Intermediate facilities should be pushed to the regional levels.

- Special Operations Forces (SOF). If SOF units are to achieve strategic effect, they must be controlled at the strategic level. This gives central decision makers the ability to use such forces in such a way that they achieve the optimal effect. This can be within different national regions, or outside the borders.
- Air support assets. A small state probably has limited air assets, and they should be used where they are needed the most. Such assets, for transportation, close air support, and other uses, should be centrally controlled, but utilized at the local level.
- Strategic fires. Some nations might have long-distance missile capability. Such assets should be centrally controlled, as it is probably a limited resource. Regional units can request such fires, and will be supported on a case-by-case basis.
- Information Operations (IO). Although some parts of IO (such as deception) should be part of any military operation, there is a need for centralized guidance and planning for strategic IO.

D. CONCLUSION

Based on the strategy and tactics described in previous chapters, this chapter has presented the framework for a national defense force. This organization has been designed from the bottom up to fight according to irregular warfare principles, including some of the central principles of "swarm tactics." The organization is based on standard-sized teams, with an inherent flexibility in terms of tasks and potential supporting technology. These teams can be joined together in groups when needed. A number of groups are located in each national region. The size, terrain, and importance of each region will dictate the size of the actual force that is designated to a region.

The central level will operate on the national military strategic level, issuing guidance and providing support. Some enabling forces are held at the central level in order to achieve maximum strategic effect.

Having described the organization designed for fighting the irregular war, the next logical step is to describe the technology needed to enable the organization to achieve the maximum effect.

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VI. TECHNOLOGY

Wars may be fought with weapons, but they are won by men.
It is the spirit of men who follow and of the man who leads
that gains the victory.

George S. Patton Jr.

A. INTRODUCTION

Possessing the right equipment can be an important force multiplier for military forces, and, on occasion, obtaining the right equipment is achieved by being at the forefront of technological development. After all, technology has historically shaped the way combat has been conducted, such as with the introduction of airplanes in the First World War. It has contributed to ending wars, such as in the example of the use of nuclear weapons against Japan at the end of the Second World War. In the previous chapters, irregulars have been shown to take advantage of the technology of their time in order to improve their performance. One example is the Boers´ use of modern rifles combined with smokeless powder to increase their lethal range and hide their firing positions. Another example is the Chechens´ use of simple push-to-talk radios to enable their networked use of small fighting units. One of the best-known cases of irregular use of modern technology is probably the introduction of U.S. anti-aircraft missiles to the Mujahideen in their war against the Soviets in Afghanistan. This weapon changed the whole balance between the Mujahideen and the Soviets. There is no doubt that the right use of technology can increase the effect of a military organization.

However, to the irregular force, possessing high-tech equipment is not a guarantee for success. Neither is the lack of such equipment necessarily an assurance of failure. In fact, some of the most credible opponents of the Western world currently, the Taliban, have remarkably antiquated weapons. Most of their fighters are equipped with AK-47, PKMs, or RPG-17s. All of these weapons were

designed more than fifty years ago. Arguably, the Taliban´s most feared weapon, the IED, is generally produced from fertilizer and household items, with the simplest trigger mechanisms made out of saw blades and old shoe soles. In a way, Afghanistan can be seen as a testbed for the use of technology. The Mujahideen managed to hold out against the Soviets in the eighties with the U.S. supporting them with Stinger missiles. A little over twenty years later, the United States was back in Afghanistan, this time to fight the Taliban and their cohorts. Without the use of any significant weapon systems to threaten U.S. and allied aircraft, it seems the Taliban are holding their own. This is another indication that such technology, although important, is not necessarily a game-changer.

1. High-Tech Irregulars?

The fact that technology on its own rarely wins wars does not mean that a military organization based on irregular warfare principles should avoid the use of advanced technology. In fact, this chapter will point to some examples where such technology can be very advantageous. The fact that a nation is defined as a "small state" does not mean that it has to be constrained by limited domestic technology or economy. In fact, there are numerous examples of small states investing heavily in technology, most of the time in support of conventional forces. The research in this thesis indicates that these funds could be put to better use supporting an irregular organization.

It is also worth noting that in some of the suggestions that are made in this chapter, widely used weapon systems are suggested implemented in the irregular organization, but used in non-traditional ways. In a conventional military organization, the weapon platforms are often significantly more expensive than the weapons they carry. That means that by discarding the platform, but keeping the weapons, significant cost reductions can be made, while maintaining or expanding the ability to use the weapons. An enemy tank will not react differently to an incoming missile whether it is launched from a multi-million-dollar aircraft or from a ground-based tripod at a small fraction of the price.

Thus, technology investments for irregulars should be considered as a potential force multiplier. Advanced technology might not be necessary to win wars, it will never be sufficient by itself, but it will probably increase the chances if the right investments are made. What is right depends on the environment of each nation, including the willingness of political and military leaders to prioritize.

2. Challenging Technology Investments

In order for a materiel investment to make sense for the small state, the effect of the added materiel needs to be as big or larger than the effect of investing the same amount of money in another place in the organization. With a finite amount of money available, it needs to be put to the best use possible. A new tank, a communications system, or a new personal weapon needs to add combat effect to such an extent that the investment can be defended. Too often, it seems that military investments are based on a combination of officers wanting the best tools that exist to support their niche, together with a defense industry more than willing to support a notion of necessity. This search for optimal solutions increases the costs significantly, and can impact the balance of power. This military-industrial complex is just as real today as it was in 1961, when U.S. President (and retired General) Dwight Eisenhower first warned of it:

> In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist. We must never let the weight of this combination endanger our liberties or democratic processes. We should take nothing for granted.[254]

The challenge is that the different players in this complex relationship have differing priorities and goals. While they might all seem to aim at improving the operational output, that is not necessarily the case. As described above, military officers are often focusing on their own field, competing against other similar needs in other services or branches. The defense industry on the other

[254] Dwight Eisenhower, in his January 17, 1961 farewell address. Accessed November 20, 2013, http://www.ourdocuments.gov/doc.php?flash=true&doc=90.

hand is—like any other industry—primarily interested in making a profit. The danger lies in the fact that these two interests often converge when the military ends up buying presumably the best, and often the most expensive solutions, sometimes after a long and costly development process. This can lead to dangerous results. For a small state, investing heavily in one field will necessarily lead to capability gaps in other areas. Unlike a major power, a small state does not possess the overwhelming mass of military force to cover or fill these gaps.

A logical conclusion from this is that a small state should equip its forces with the technology that best enables them to achieve an optimal output. The investments must be balanced in terms of covering the whole spectrum of needs, as well as in terms of cost versus effect. This will often mean that “good enough” solutions must be the goal, acquiring reasonably priced, commercial off-the-shelf (COTS) solutions.

It has been stated repeatedly in previous chapters that there is a logical path from strategy to tactics to organization to technology. The tools—or technology (or equipment)—come last in this chain for two reasons: the first reason, as described above, is linked to the tasks; there is no reason to have equipment without a task. In the same way, it is problematic to have a task for which you do not have relevant equipment to help you solve it. The second reason is that personnel are more important than equipment. The human, as a part of the organization, should be equipped, not the other way around. In a small organization, the optimal performance of each individual is even more important.

3. Employing Domestic Industry

The whole scope of this thesis is to explore the possible use of irregular warfare for small states. Even though irregular warfare has often been used in countries with limited infrastructure and technology (such as Afghanistan), that is not a limitation for this thesis. Small states can be highly developed, with technical expertise and production facilities to compete on the global market. A few examples of small states with significant technological expertise include Norway, producing missile systems, advanced ammunition and remote-controlled

weapon stations for a range of their allied countries; Sweden, producing fighter jets as well as fighting vehicles and small naval craft; and Finland, which has been a leading country in terms of communications technology for a long time. These are only a few examples from one region of the world.

Such technological capability and knowledge should be exploited by the small state to improve its military forces as much as possible. Employing local industry makes the country less dependent on large international companies. This does not necessarily mean, though, that the small state should think too locally, especially if it is part of a coalition. Interoperability should always be a factor when choosing technological solutions. However, interoperability does not always mean that you have to possess the same equipment as the lead nation in a coalition.

Another advantage of a domestic, well-developed defense industry is that a nation is, to a certain extent, self-sustained. Other countries´ export restrictions or changing production priorities in times of crisis can create significant problems. Domestic production for a state's own use will not be affected in the same way. The involvement of the defense industry must be weighed against the dangers of letting its interests shape the development and acquisition processes.

B. THE TECHNOLOGICAL NEEDS

As has been described above, the intent is for the technology to work as a force multiplier, increasing the effect of a small state's forces. In addition, as has been described in previous chapters, there are some other selection criteria to consider before technology is implemented in an organization. These criteria require that technology enable the organization, and not be a burden. The criteria are:

- A reasonable cost / effect ratio – as low-cost as possible
- Limited logistical support needs – easy to maintain or repair
- Limited special training needs – easy to handle and use

- Flexibility of use – can be used in a broad range of situations

Any equipment that does not fall within these criteria should probably not be implemented in the organization, at least not at the dispersed tactical level. Some more complex systems might be needed as part of the central enabling organization, where it might be acceptable due to a higher level of specialization.

Based on previous chapters, and in particular chapters 4 and 5, the following areas for technological needs can be derived:

- Information gathering
- Targeting
- Weapons
- Mobility
- Communication / coordination / control systems

Each of these areas will be discussed next. There is a limit to the level of detail necessary, since the exact solutions should be considered based on the environment, both in terms of geography, threats, as well as available economical and industrial resources.

1. Tools for Information Gathering

The goal for using this technology is to enable the teams to gather information that can be used to impact enemy operations, either directly or indirectly. The information gathered must be shared to the extent necessary and possible. Technology for information sharing will be covered as part of command / control / communications technology. Information should be gathered by the use of the following technology:

Electro-optical sensors. Employing a combination of traditional optics, night-vision sensors, as well as thermal sensors, the teams will be able to detect and identify enemy activity without transmitting any detectable emissions themselves. The sensors should be a mix of directly and remotely operated

sensors in order to enable the teams to have freedom of placement without being limited by sensor positioning. Some sensors might even operate autonomously for extended periods of time, giving the teams even more freedom.

Communication sensors. To the extent possible, the teams should have the ability to exploit enemy radio transmissions. If not able to listen in, they should at least be able to detect activity in their area of operations. It might even be useful to have teams equipped with listening devices, transmitting their intercepted traffic back to central enablers who can analyze the traffic.

Elevated sensors. Unmanned aerial vehicles (UAVs) should be employed in a range of sizes and types. While it might be useful in some circumstances to have a few centrally controlled larger UAVs, this type of sensor should also be considered part of a "swarm" approach. The teams should be able to employ their own UAVs, using them for a range of tasks, including surveillance and target acquisition. The user interface for these systems must be kept very simple, with limited specialized training needed. Ideally, several teams in the same area can share information directly from these elevated sensors, giving them a common operational picture.

2. Tools for Targeting

The teams should have equipment to enable them to direct organic or centrally controlled weapons. The centrally controlled weapons might include artillery, long-range missiles, or air-to-ground fire. In order to do this, the teams need target designator systems, enabling them to produce exact target positioning data, as well as terminal guidance for externally delivered weapons. This will probably mean some sort of laser target designator (LTD).

3. Weapons

The overarching goal of the weapons technology is to enable the organization to degrade enemy capability. Ideally this degradation can be kept up until the enemy is defeated. The teams should have as much firepower as possible, without degrading their ability to move effectively, or hampering their

ability to stay below the "detection threshold." As described in chapter 4, one goal should be to present the enemy with an unclear and confusing threat picture. He should always feel exposed to attack, and never feel safe. This means that the irregular organization must possess weapon systems that are useful at a variety of ranges, and under changing conditions. This "symphony of different weapons"[255] can be divided in three types:

1. Direct-fire team weapons
2. Guided or indirect fire weapons operated by the teams
3. Centrally controlled weapons

The distinction between these different types of weapons, especially the first two, is not absolute. It is just presented as a way to think in terms of how the weapons are used tactically, as well as how they are organizationally positioned.

Direct-fire team weapons. These are the weapon systems that are 100% "owned" and controlled by the individual teams. The goal of these systems is to enable the teams to damage enemy capability, as well as protect themselves. This group of weapons can further be divided as follows:

- Personal small arms. These should be as light, and low maintenance as possible, with the longest terminal range possible.
- Sniper systems. The teams should have lighter systems to use at medium ranges against soft targets, as well as heavier (in terms of caliber, not weight) systems to use at longer ranges and against harder targets. Systems with high precision and flat trajectories should be sought.
- Direct-fire support weapons. These weapons can be vehicle mounted or carried by the personnel. The goal of these systems is to provide the teams with the ability to provide massive amounts of

255 George Crile, *Charlie Wilson´s War: The Extraordinary Story of the Largest Covert Operation in History (*New York: Grove Press, 2003), 304.

firepower for extended periods of time. Typically, such weapons will be machine guns (light, medium, and heavy), as well as automatic grenade launchers of different calibers. They can be used against enemy personnel, vehicles (soft-skinned or light armored), or aircraft at close ranges.

- Anti-armor individually operated weapons. These are weapons that are used against hard targets, such as enemy tanks, armored personnel carriers, bunkers, or concrete buildings. They are carried and operated by individuals. They can be single-use such as the AT-4 or multi-use such as the Carl Gustav 84mm.

Guided or indirect fire weapons operated by the teams. These weapon systems are also “owned” and operated by the individual teams, using them to damage the enemy as well as protect themselves. However, these systems might also be used in support of, or supported by, other teams in the organization. The weapons are either terminally guided by operators with target designators, or by on-board guidance systems, or directed by forward observers providing target data. Each team will be equipped with such systems based on the environment (geography, threat level, and enemy composition), as well as their mission set. When operating as part of a larger organization, the composition of the different teams´ weapon systems should be complementary. This group of weapon systems can be divided as follows:

- Light indirect fire weapons, such as mortars. These can be vehicle mounted, or carried by personnel. Depending on the type and caliber, they can have a range up to around six kilometers. Mortars can be used to hit targets that cannot be reached by line-of-sight weapons, due to the steep terminal angle of the projectiles. Mortar rounds are also available with terminally guided munitions, for use against both soft and hardened targets.

- Organic precision guided missile systems. Depending on the type, such weapon systems have a range from a few hundred meters to over ten kilometers. Equipped with GPS or laser guidance, they can be used to hit specific vehicles, or parts of buildings, as well as hardened positions. Examples of such weapons are modified 70mm rocket systems, as well as modified Hellfire missile systems.
- Light anti-aircraft missile systems. These systems are primarily meant for self-protection against enemy fixed- and rotary-wing aircraft. A dispersed anti-aircraft capability will limit enemy use of aircraft for surveillance and targeting, especially at lower altitudes.
- Light artillery. Although artillery is maybe not the first thing that comes to mind for small units, it could be a viable tool in some cases. The advantage to artillery is the ability to deliver rounds repeatedly at longer ranges. The cost of each round is limited when compared to missile systems. The range is impressive: a 105 mm light gun has a range of over 20 km with extended range ammunition. Modern ammunition with guided munitions can contribute to improved precision. Light 105 mm guns have a weight of less than 2000 kilos, and thus can be towed by most full-size vehicles.

Centrally controlled weapon systems. These are systems that either in terms of range, importance, or scarcity should be considered operational assets, and as such should have be centrally controlled. The systems might be in support of a part of the organization for a given time, or it might be an on-call resource. Protection of these assets is an important factor, since they are probably limited in numbers. Examples of such systems are:

- Long-range missiles. These systems should be used against high value targets, based on information from dispersed teams or centrally controlled sensors. With extended ranges, they can cover large areas. Depending on

the range and type, such systems might be prepositioned at several areas across the state, or be moved from place to place in inconspicuous ways.

- Aircraft, both rotary and fixed wing. Depending on the environment, especially the geography and enemy air threat, a small state might be able to keep operating aircraft even after an attack. If so, own aircraft can be used to support dispersed teams with air-to-ground munitions.
- Weapon-carrying drones. Although most such systems are extremely expensive today, that factor might change in the near future. Having centrally controlled drones for targeting as well as information collection could be an important resource.

4. Mobility

The elements of the organization´s ability to move will impact both its lethality and its ability to survive. The enemy will be mobile, and will always be on the lookout for stationary targets. The teams must be able to move from positions of hiding to advantageous attack positions and back quickly, and with the lowest possible profile. They must also be able to move over larger distances if need be. An important factor for the choice of vehicles is the need for maintenance, as well as the possibility for local repairs. The key equipment needs are:

- Team vehicles. When conditions allow it, the teams can operate vehicles with a group of three to four individuals in each vehicle. Each of these vehicles will have mobility, weaponry, and communication capability to move individually if needed. The specific design of the vehicles must be based on the environment in which they are meant to operate. This includes making such choices as armored versus unarmored, wheels or belts, and using standard civilian versus specialized military vehicles. There are advantages and disadvantages to each solution, based on the situation.

- Individual vehicles. In some environments, individual vehicles might be more useful. The advantages include generally better ability to traverse difficult terrain, a lower profile, as well as the ability to split up into smaller groups, or even individually. The disadvantages are challenging command and control and potentially increased vulnerability, since all individuals are engaged as drivers. Examples of such individual vehicles are all-terrain vehicles (ATVs), snowmobiles, and motorcycles. In some cases, employing a combination of team and individual vehicles might be useful.
- Small boats. In littoral areas, as well as in inland areas with lakes and rivers, the use of small boats can be useful. By using inflatable or collapsible craft, these can even be transported as part of the standard load on the team vehicles.
- Light aircraft. Depending on the environment, different types of light aircraft may be a viable solution. In complex terrain, it might be possible to keep flying small aircraft even though an enemy might have air superiority. These aircraft might be used for insertion or extraction of personnel, as well as resupply. Specially trained personnel or team members with extra training can operate them.
- Individual equipment. Any equipment that can help the teams move in ways that the enemy cannot, will give the teams an advantage. Just as the Finnish soldiers used skis to move around and between Russian units during the Winter War, low-tech solutions can be used in other situations. Skis, snowshoes, or climbing gear can provide significant advantages, especially when combined with intimate knowledge of the local terrain. Speed is relative, both compared to the enemy´s ability to move and his expectation of what the opponent´s ability is.

5. Communication / Coordination / Control Systems

Communication will be a key enabler for the irregular organization. To maximize the effect of the dispersed organization, an effective communications system is of the utmost importance. That does not, however, mean that the organization will cease to be combat effective if for some reason the communication system does not work. The core of the irregular organization is not the technology linking people; it is the shared culture and understanding, enabling each unit, however small, to contribute to the common goals. Another way to formulate this is by saying that "unity of command may not be necessary in all successful battles but unity of effort certainly is."[256]

When communication systems are discussed, security must be part of the discussion. There must be procedures, as well as technical measures, in the system, which allows a secure transfer of information between nodes without allowing outside access to classified information. This does not mean that all information needs to be classified. In some cases, being open about priorities and general plans might be used as part of an information operations campaign. If the enemy knows that his tanks are on the top of the priority list, and chooses to protect them by keeping them stationary, the goal is accomplished. The key information, essential for the survival of the teams, is their location and detailed plans. This must always be considered an essential element of friendly information, and protected accordingly.

There are several tasks that a communication system should perform, thereby enabling the organization to function optimally. This system will probably be a "system of systems," ideally linking the different parts together. However, complex communications systems often tend to be extremely expensive, so this is one area where functionality and cost must be balanced and weighed carefully. The key functions of the communication system are the following:

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[256] Frost, quoted in Sean J. A. Edwards, "Swarming and the Future of Warfare," (Santa Monica, CA: RAND, 2005), 146.

- Providing the individual units with direction and guidance from the central or regional level. This could be in the form of intelligence summaries, prioritization of targets, changes in rules of engagement (ROEs), or plans for coordinated operations. One way of achieving this task without having all units actively transmitting all the time is by establishing a “cloud-based” system where all this information is posted. Units might “shop” from a list of prioritized targets, requesting support if they need it. This system can also be used for uploading information from the teams, such as information about enemy locations or activity, as well as own status reports.
- Inter-team communication, providing the teams with the ability to coordinate with other teams in adjoining areas. This would be the command and control net to be used when several teams are working together in a larger group. Ideally, this system should provide a platform for both voice communication, text transfer, picture and video transfer, as well as transfer and sharing of a common operational picture. This would enable units working together to share their own positions, as well as enemy observations or targets. Ideally, a method to designate targets to individual teams with their respective supporting weapons should be incorporated into the system. This system would also function to de-conflict different teams’ efforts and lower the chances of blue-on-blue fire.
- Intra-team communication, linking each of the team members to the other members of the team. The most important element of this system is voice communication, although other functions can be incorporated.

C. CONCLUSION

As has been repeatedly stated in this chapter, as well as in other chapters of this thesis, technology should be viewed as a tool or an aid, and not a goal in itself. A military planner at higher levels should strive for a desired effect, and be less concerned with the methods used. When choosing methods, simpler is

always better from a cost effectiveness standpoint. An enemy tank can be a significant threat to one's own operations. While a "better tank" could likely defeat it, an enemy tank can also be defeated by remotely setting off an explosive charge underneath it. By employing a simpler, lower-cost method to achieve the same goal, money saved can, instead, be used in other parts of the organization. This is not to say that modern technology should be rejected. The discussion in this chapter indicates that the right technology used in the right way can be a force multiplier, enabling irregular forces to achieve more effect against an enemy.

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VII. THE WAY AHEAD

In war the loser deserves to lose because his defeat
must result from errors of thinking,
made either before or during the conflict
André Beaufre

Is an irregular warfare approach to national military strategy appropriate for small states? If so, how can these principles be applied? The analysis conducted in this thesis leads to the conclusion that by using the principles of IW, combined with a well equipped, trained, and designed organization, a small nation can increase significantly the capabilities of its military forces.

Theory, as well as historical evidence, indicates the need for a strategy adapted to the context of the small state. The strategy should be based on an indirect approach, which in turn is based on irregular warfare principles.

This thesis should be looked upon as a feasibility study, built on logical reasoning from strategy to tactical principles, rooted in strategic theory and historical lessons learned. This work is not intended to be a "blueprint" for changing strategy, but to serve as a primer for a healthy process of questioning conventional thinking in the contemporary defense debate. Many countries currently seem too bound to traditional thinking, lacking the ability to think beyond conventional parameters in order to optimize given (national) prerequisites.

A. IRREGULAR WARFARE – A DIRTY WAR?

Based on the last decades of conflicts, the tactics used in irregular warfare have left a bad taste in the mouth of many military traditionalists. For those individuals, irregular warfare is affiliated with illegality and uncontrolled banditry, brutality, terrorist organizations, terrorist tactics, and civilian suffering. This biased picture is further strengthened in the media, as a part in another war, the war of the narrative.

However, the concept presented in this thesis is built on legality, and upon a situation wherein the state controls the military force. In that regard, what

differs from the application of a conventional military force are the strategy and tactics used, as well as the organization employing these methods. The small states´ irregular wars should be waged according to international conventions, taking into account the "rules of war." An irregular defense system, built during peacetime, based on well-trained soldiers and well-educated officers with high moral standards, will mitigate the risk of illegality, brutality and civilian suffering. The overarching goal for the military is to uphold national integrity and sovereignty, not to overthrow the government or make revolutionary change.

Based on history, the problem of illegal activity by elements using irregular tactics has been predominant when the organizations have been established in wartime, with limited previous military training. This has often been the case when a nation´s conventional force has been decimated, and resistance organizations have been established on an ad-hoc basis. One such example is the development in Yugoslavia during the Second World War.[257]

The nature of war is brutal and includes a lot of suffering, whether the conflict is conventional or irregular. Suicide bombings, bomb attacks in civil market places, and IEDs killing civilian innocents have become integral parts of many conflicts. But this has to be put in a context of desperate irregulars fighting another kind of war: imposing fear and despair on the population in order to prove their strength and gain popular support. In a struggle for regaining integrity or sovereignty, the weaker parties in conflicts have resorted to brutal and often illegal tactics. On the other hand, reports of drones killing innocents, soldiers outraging civilians, missiles hitting schools, civilians suffering from blockades and coercive air bombing, are all tales of the modern conventional way of war. The conflicts in Iraq and Afghanistan are two examples of this reality.

There is a huge difference between terrorism per se, and the modus operandi of terrorism, i.e., raids, IEDs, kidnappings etc. Daniel P. Bolger makes

257 See Stephen A Hart, "Partisans: War in the Balkans 1941–1945," *BBC*, February 17 2011. Accessed November 26, 2013, http://www.bbc.co.uk/history/worldwars/wwtwo/partisan_fighters_01.shtml.

an important point on this phenomenon in his book *Americans at War.*[258] Bolger separates the mixture by defining the difference between terrorism and unconventional methods. “Action against trained, deployed military forces are acts of war, not terrorism, although the means employed and groups involved may be of terrorist ilk.”[259] The difference lies in the intended target, as well as in the objectives.

This takes us to the use of psychological warfare, or the battle of the narrative. According to William E. Daugherty, psychological warfare is “…the planned use of propaganda and other actions designed to influence the opinions, attitudes and behavior of enemy, neutral, and friendly foreign groups in such way as to support the accomplishment of national aims and objectives.”[260]

The previous chapters have clearly indicated that irregular warfare can be effectively employed by a small state against a greater state. In doing so, the small state needs to formulate and broadcast a clear message to potential adversaries, indicating that “we will fight with every legal means available, supported by the population, in order to make you realize that your common objectives will be more costly, and exceed the benefits you seek.” Using the principles of IW as described in this thesis is a matter of fighting smart, being the smart power.

Whether using conventional or irregular warfare, the fact is that civilians will suffer. Modern war is not a “privilege” for a political and military elite, where the forces wage war in a well-defined battlefield. A philosophical approach to this problem can be taken by asking whether people would prefer to accept the oppression from an occupation force, or the dangers of fighting for their sovereignty and freedom. History suggests the latter: people are willing to risk losing a lot when freedom is at stake.

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258 Daniel P Bolger, *Americans at War 1975–1986, an Era of Violent Peace*. (Novato, CA: Presidio, 1988).

259 Bolger, *Americans at War 1975–1986,* 359–360.

260 William E. Daugherty, *A Psychological Warfare Casebook (*Baltimore: Published for Operations Research Office, Johns Hopkins University by Johns Hopkins Press, 1958), 2.

B. INNOVATE OR CEASE EXISTING.

This thesis can be perceived as an urging to innovate: strategically, tactically, organizationally, and technologically. The focus is upon innovation and change, not downsizing and reduction. In the thesis *Effective Military Innovation: Technological And Organizational Dimensions,* Robin Marling points out the interrelations between these parts.[261] According to Marling:

> It is unlikely that militaries will innovate technologically and organizationally simultaneously. Usually, one form of innovation will lead the other, the first creating the demand for the second. Sometimes militaries advance technologically first, creating new technology and then considering new ways of employing said technology: new tactics, new operations and new strategy. Eventually the new strategy creates a demand for organizational innovation to become fully effective.[262]

Marling further explains this statement, saying:

> The overarching lessons are these: technological innovation is overrated as a source of military effectiveness; organizational innovation is underrated as a source of military effectiveness; the best results stem from innovations in both organization and technology. . . Continual innovation is what is necessary to stay inside an opponent's OODA loop.[263]

A last factor to consider is the fact that even small Western states have interests outside their national borders, either stemming from their allied responsibilities, or as part of a preventive defense strategy. Whether one likes it or not, several small states are present in the middle of complicated conflicts outside their borders. From the perspective of international commitments, the conflicts in the last decades in places such as the Balkans, Africa, Afghanistan, and Iraq have all proved the need for international forces with an irregular mindset. From this perspective, a small state with its military force based on

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261 Robin Marling, *Effective Military Innovation: Technological And Organizational Dimensions*, (Master's thesis, Monterey: NPS, 2002).

262 Ibid, 49.

263 Ibid, 71 and 74.

irregular warfare principles would be most useful and offer a force multiplier in terms of understanding both the enemy's mindset and tactics. This should be a very useful starting point for countering irregular threats.

One motive used by the advocates of conventional forces and tactics is the need of interoperability within alliances such as NATO and the EU. The interoperability aspect is foremost a matter of command, control and communications, not about similar force structure.

C. WHERE DO WE BEGIN?

The present defense debate (which is a continuation of a debate that has been going on for centuries), is foremost a debate about military spending. Money spent is seen as producing an equivalent of military effect. The discussion around the assertion that when military budgets are cut, military forces are no longer able to perform their given tasks, is covered by the shadow of conventional western thinking. This approach obscures the real question: are we using the right strategy based on our inherent capacities in order to defend integrity and sovereignty? This key question is neither identified nor raised in the debate, nor placed upon the current political agenda.

So, who should be responsible for raising these kinds of unconventional, but important thoughts? First, it is a matter of grand strategy. Questioning and ultimately changing a national strategy is a hard process, including confronting questions about national priorities, which will affect a state's foreign policy, security policy, and its national defense policy. National priorities can be defined by using Colin S. Gray's "National-Interest Analysis."[264] Even if the analysis is in its simplest form, it raises the straightforward question about where to put the effort by ranging interests from survival, to vital, major and other interests. This is especially important in times of economic cutbacks and uncertainties.

Even if scattered by uncertainties, a National-Interest Analysis will offer the national defense structure planning guidance for the prioritized utility of

[264] Colin S Gray, *Explorations in Strategy* (Westport: Praeger, 1996), 116.

military force. Further guidance can be found by using Gray's principles of characteristics of armed forces.[265] These thirteen principles include a master, capable of winning, followed by twelve desirable qualities in [U.S.] armed forces. A short overview will show that a small state with a conventional military mindset, when faced with a greater state questioning the smaller state's integrity or sovereignty, will not reflect the thirteen characteristics. To fulfill those requirements, a new defense force guided by other than conventional principles must be developed.

So what? The problem is that in the process of conventional military planning, advisors and decision makers are often limited by mainstream traditional thinking. In the book *The Masks of War*, the late Carl H. Builder argued that factors other than logical thinking are involved in defense planning, including sources "deeply embedded in the interests of the people or institutions that advocates them."[266] According to the author "there is considerable evidence that the qualities of the U.S. military forces are determined more by cultural and institutional preferences for certain military forces than by the ´threat.´"[267]

In his book *Worst Enemy*, John Arquilla examines the ongoing "war over war,"[268] i.e., the war between traditionalists and reformists, and the consequences for U.S military capability in the future. According to Arquilla "The real problem lies not in Congress or corporations but with the military, whose professional expertise is trusted by both these sets of actors, as well as by the American people and the President."[269] Arquilla's point is that the military has a responsibility, which includes creative and unconventional thinking, when current doctrines, strategies, and tactics no longer are adapted to its purpose: be that to win the war on terror or defend sovereignty.

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265 Ibid, 124.

266 Carl H. Builder, *The Masks of War – American Military Styles in Strategy and Analysis (*Johns Hopkins University press: Baltimore, 1989), 4.

267 Builder, *The Masks of War,* 8.

268 John, Arquilla, *Worst Enemy – the Reluctant Transformation of the American Military* (Chicago:Ivan R. Doe, 2008), x.

269 Arquilla, *The Worst Enemy,* 230.

The military-industrial complex is built on a long tradition with the motivations to serve as an employer, create profits, as well as secure the state's ability to be independent and the allies' need to remain dependent. The military-industrial complex has, indirectly, a great influence on the chosen strategy. On the other hand, as discussed in chapter 6, there are alternatives, another market, to redirect this complex into supporting a chosen strategy.

D. STEP BY STEP – THE WAY AHEAD

This thesis suggests that small nations should evaluate their choice of strategy. The following topics would further expound the recommendation in this thesis:

War gaming and computer simulations. Based on the concept presented in this thesis, war gaming would further shed light on the recommended strategy and tactics. At the strategic level, this could be done by tabletop exercises. The war gaming should highlight the factors identified in chapters 2 and 3 concerning an indirect strategy and irregular warfare principles. Questions that should be discussed include the following:

- The application of Beaufre's two maneuvers, the exterior and the interior: how can freedom of action be achieved, how can a conflict be prolonged and spread, thus and making it too costly to the enemy?
- How should Liddell Hart's ideas of economy of force and psychological blows be applied?
- How can Arreguín-Toft's factors concerning interests and vulnerabilities, be applied, exploiting political vulnerabilities and prolonging the conflict?
- How should PSYWAR be applied to support both the exterior and interior maneuver and win the battle of the narrative?
- How can national cohesion be strengthened and maintained?

These are just a few of the questions that should be highlighted on the strategic level to better understand the meaning of indirect strategy, irregular warfare principles, and the defensive-offensive method suggested by this thesis.

At the military operational and tactical levels, war gaming could be done by both computer simulations and practical exercises, testing the use of irregular warfare principles and the tactical principles discussed in chapters 3 and 4, as well as the organization and equipment described in chapters 5 and 6. The following should be addressed:

- How should the IW principles be implemented in a specific nation, incorporating specific national interests as well as the local environment?
- What are the effects, in comparison to conventional strategies
- To what extent should swarm tactics be incorporated?
- How could a system be designed to create intelligence and information advantages?
- What is the impact of leadership? Are we looking for new kinds of leaders?

The authors of this thesis stress the need for education and training before undertaking any serious war gaming. History is a strong indicator of the usefulness of irregular warfare. The goals of such war gaming should be to refine and develop a concept based on the strengths of irregular warfare, not to emphasize potential weaknesses. Thus, the personnel involved should be motivated to make such a concept work optimally.

The economic aspects. The recommendations concerning lighter forces should be explored, including calculations of the associated costs of such an organization. Such calculations must be done both from the perspectives of initial investments and continued operations. The goal of this thesis has not been to show the potential savings from transitioning to an irregular concept, rather the potential for increased effect. To that end, any reductions in spending should be used in order to maximize the effect within the military organization.

Reconsider compulsory service versus professional forces. Several small states have gone away from mandatory military service for all (male) citizens. Instead, they have established professional standing military forces. The results in all these cases have been significant reductions in numbers. While it has often

been argued that the result is an increase in capability due to higher proficiency and more experience, in many cases that is at best only part of the truth. There is a threshold to how few soldiers a nation can have and still have a credible military capacity. Although it is often proclaimed “quality is better than quantity,” this is not a question of one or the other. Wars have been won with drafted soldiers and volunteers with limited experience and training. Quantity also holds a quality. For a small state, compulsory military service might be the only way to uphold a military with an adequate size. This does not mean that there is no room for professionals, only that there needs to be a balanced approach. A small state can have a flexible organization, based on a mix of standing and reserve forces. These can be differentiated based on training levels with corresponding demands on readiness. That way, the state can handle immediate challenges of limited scope, but also expand to handle large, longer term challenges.

Resistance movements. This thesis has focused on military irregular warfare, but as a prolongation of a “total war,” a coordination and continuation of the conflict by resistance forces should be considered.[270] A military based on irregular warfare principles should be more adaptable to a post-occupation situation than a conventional organization. This creates a layered approach to national defense. War, in the context of sovereignty (or total war), is not a “privilege” for a chosen few politicians and the military. It is a matter of concentrating all national efforts for the survival of the state. That is one of the central points in irregular warfare: the military and civilian organizations working side by side.

[270] Resistance movements are nothing new. During World War II, both the U.S. and Great Britain established resistance movements in parts of occupied Europe. During the Cold War, stay-behind organizations were established in most Western European countries. (Authors´ remark).

At the end of the day, for the small state it is all about being a smart power. The great powers may be able to persist in their adherence to old, costly ways. Small states have no such luxury; and so necessity drives them to innovate. And in the end their innovations may provide lessons even for larger states.

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