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## Smaller versus Larger Forces

**Der Autor geht der Frage nach, ob die technologische Revolution in militärischer Hinsicht das hält, was sie verspricht. Er zweifelt an der überlegenen Einsatzfähigkeit kleiner, hochgerüsteter Streitkräfte und nennt dafür das Beispiel Irak 2003/2004.**

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Milan Vego

The proponents of fourth-generation warfare and network-centric warfare apparently succeeded, at least in the United States and the UK, in putting forth the idea that the new information technologies will lead to an era of smaller armies. These and similar claims are not new; almost exactly the same rationale was used by airpower proponents and some leading advocates of mechanization and motorization in the 1920s and 1930s. Similarly, the era of missiles and nuclear weapons promised the radical reduction, if not elimination, of conventional forces. Ultimately, none of the prophecies regarding the new technologies and smaller armies were fulfilled.

### Firepower and Mobility

In the past, the main factors in an increase of one's combat potential or combat power were significant advances in mobility and firepower. This fact led to a belief among many theoreticians and practitioners that new technology could lead to much smaller armies. These claims were not without merit, and in fact steady advances in technology did lead to a reduction in the size of military forces. However, experience conclusively shows that technology's leading proponents perennially exaggerated its impact. Technology was never the sole, nor even the most important, factor in reducing the size of one's forces while enabling them to accomplish their assigned military objectives. One's superior combat leadership, training, doctrine, unit cohesion, morale and discipline, and other intangible factors, when properly integrated with the new technological advances, proved to be the surest way to success in combat.

In the 1920s, a number of well-known theoreticians became mesmerized by new technologies. Fuller wrote that in the age of the internal combustion engine, human masses had become insignificant in comparison with technological advances and technical perfection. Fuller was a great believer that the overwhelming power of the tank would make infantry obsolete. In his book *The Reformation of War*, published in 1923, he wrote that tanks would reduce the number of infantry and that infantry would not play any role during a tank battle. He believed that technology was more important than man on the battle-

field. Both Fuller and another influential proponent of motorization, Liddell Hart, believed that technological advances would lead to much smaller, professional armies.

General Hans von Seeckt, chief of the Reichswehr, was a remarkable professional officer and thinker. However, he, like Fuller and Liddell Hart, clearly erred in his belief that the armies of the future would be much smaller than those in World War I. He believed that mass armies were too unwieldy and hence too difficult to control. In his view, the future belonged to smaller, high-quality armies, which could conduct fast and decisive operations and thereby help to restore supremacy of the spirit over material. Von Seeckt's experience on the Eastern Front in World War I, where smaller but better equipped, trained, and led German armies consistently defeated large Russian forces, convinced him that the time of mass armies had passed. Mass was slow. It could not maneuver and therefore could not win victories. A small army was easier to arm and equip, while preparing modern weapons for a million-man army was impossible. World War II proved that both Fuller's and von Seeckt's ideas about smaller armies as the wave of the future were premature. All the major belligerents fielded million-man armies.

### Combat Power and Net-Centric Force (NCW)

NCW advocates contend that one of the great benefits of netting one's forces is the significant increase in the forces' combat power. They argue that platform-centric warfare generates only "combat power," while network-centric warfare generates "increased power." In the information era, power comes from information, access, and speed, while in the industrial era it came from mass. However, it is extremely hard to measure the gain in combat power of netted forces. In contrast, the traditional elements of combat power, such as raw firepower and mobility, are easier to quantify. The problem of estimating true combat potential, and especially combat power, is complicated by the presence of so many intangible factors that essentially cannot be quantified. In a networked force, all the gain in combat power can be significantly reduced and even eliminated by micro-management and excessive centralization on the part of the higher commanders. Also, a poorly educated force and incompe-

tent commanders and staffs would invariably reduce one's combat power.

The NCW advocates use a business analogy for their assertion that the increased combat power of netted forces is the result of the application of Metcalf's Law. However, they apparently misapplied the true meaning of that law to pervasive military networking. Metcalf's Law was never intended to serve that purpose; it pertains to the goods and services necessary to participate in a network. In its original meaning, Metcalf's Law contends that the value of a network increases with the square of the number of users of the network. The leading NCW proponents have mischaracterized the law by changing its wording and thereby its true meaning. They assert that network-centric computing is governed by the Metcalfe's law, and that the law contends that the "power" of a network is proportional to the square of the number of nodes in the network. The "power" or "payoff" of network-centric computing comes from information-intensive interactions among very large numbers of heterogeneous computational nodes on the network. The NCW advocates changed the words "value" or "utility" to "power"—a highly questionable alteration. The most serious error is replacing the term "computers" with the word "computing"—it might be true that Metcalf's Law can be applied to networked computers but not necessarily to network computing.

### Smaller Forces

The NCW proponents argue that in the future one's forces will be much lighter and smaller. The logic behind this is their belief that dramatic advances in the precision and lethality of smart weapons will enable a major part of one's combat power to be brought to the battlefield from great distances. In theory, this would require a smaller presence of organic weapons. If fewer organic weapons are needed, then the ground forces themselves can be made smaller and more dispersed. They would be harder for enemy forces to find and target. Supposedly, because of their smallness, the forces could be brought onto a battlefield quickly, even faster than a traditional light airborne units. Relatively small and rapidly deployable forces would be capable of accomplishing missions that would otherwise require a large massed force.

The NCW proponents conclude that information dominance would lead to what they call "demassification." Substituting information and effects for mass would, in their view, reduce the need to concentrate one's forces within specific geographical locations. This, in turn, would increase the tempo and speed of movement



# General Antoine-Henri Jomini (1779–1869)

Ausstellung am Armee-Ausbildungszentrum Luzern



«Der Prophet gilt nichts im eigenen Lande ...» Mit dieser Einsicht aus der Bibel eröffneten wir am 22. Januar 2004 eine Ausstellung zum Gedenken an einen fast vergessenen Schweizer Militär. Jomini gehörte im 19. Jahrhundert zu den vier berühmtesten Militärtheoretikern der Welt: Erzherzog Karl, Carl Clausewitz, Ardant du Picq, Jomini. Erst heute, über 130 Jahre nach seinem Tod, erkennen wir in den neuen Führungsreglementen der Armee XXI prinzipielle Gedanken Jominis wieder. Zu uns gelangt sind sie vor allem durch das Studium aktueller US-Doktrinvorschriften ...

Jomini hatte als General für Frankreich und Russland gedient. Er war an den meisten napoleonischen Schlachten beteiligt. Dank seiner Kenntnisse in Strategie war er in der Lage, Manöver der Armeen vorzusagen. Den Feldzug von 1812 hielt er für nicht gewinnbar. Anerkennung erntete er dabei beim Aufbau einer Logistikkbasis und beim Rückzug über die Beresina.

1813 wechselte er zum Zaren Alexander I. von Russland. In hohen Generalsposten tätig, war er Mitbegründer der Militärakademie in St. Petersburg, Berater Zar Nikolaus'

I. im Krieg gegen die Türken und Verfasser von über 30 militärischen Werken. Sein Hauptwerk, «Précis de l'art de guerre», diente ursprünglich der Erziehung des späteren Zaren Alexander II.

Vor allem Länder mit Armeen ohne solide militärische Doktrin und Ausbildung übersetzten Jomini sofort. Dazu gehörten neben Russland insbesondere die USA, wo Jomini zur Pflichtlektüre wurde. Die Schweiz orientierte sich eher an Preussen-Deutschland und am berühmten Zeitgenossen Jominis, General Dufour.

Nach der Vernissage der Ausstellung, bei welcher der Biograf von Dufour und Jomini, Dr. Jean-Jacques Langendorf, ein ausserordentlich lebendiges Referat hielt, ist die Ausstellung in Luzern noch bis am 14. März 2004 zu sehen. Leben und Werk Jominis werden in 38 bebilderten Tafeln gezeigt. Ein reichhaltiger Ausstellungskatalog liegt auf. Anfragen zur Ausstellung sind zu richten an: Bibliothek Zentralschule (041 317 45 44) oder Doktrinstelle HKA/Generalstabsschule (041 317 47 13). AM

throughout the battlespace, complicating an opponent's targeting problems. NCW advocates also believe that netting widely geographically dispersed forces, combined with shared situational awareness and speed of communications, would allow much smaller forces to defeat much larger enemy forces, and very quickly. However, the NCW advocates' claim that relatively smaller forces can cover geographical areas because of their quick and flexible deployability is not backed by fact, as the examples of Afghanistan and Iraq illustrate.

One of the factors that make NCW attractive to politicians and decision makers is the prospect of having smaller forces and the overall reduction of troop levels. However, the actual reduction in numbers is far more applicable to air forces and, to a lesser extent, naval forces. The situation with ground forces is fundamentally different. A large number of troops might not be necessary in defeating weak and poorly armed opponents, such as the Taliban regime in Afghanistan or the much larger but quite ineffective Iraqi Army. However, not all dictatorial and authoritarian regimes are brittle and ready to collapse, as Saddam Hussein's regime was. Ground forces are also much more people-centric than platform-centric like the other two services. The environment for land combat is also much more diverse and far more demanding than any other medium. Technological advances are unlikely to eliminate the requirements for close combat on the ground. This is especially the case in un-

conventional warfare. The current situation in Iraq shows that information and technology cannot be a substitute for troops on the ground. The situation is also a direct consequence of the lack of sufficient forces in the combat phase of Operation Iraqi Freedom (OIF). Normally, much larger forces and different force mixes are required in the postconflict phase than in the combat phase. Counterinsurgency efforts are by their very nature protracted and require the integrated use of not only military but also political, economic, informational, and other sources of one's power. All this requires much time, effort, and, above all, troops on the ground.

## Value of Larger Forces

The size of the armies, navies, or air forces employed is one of the most decisive elements in war as a whole. Normally, there is a great advantage to being numerically stronger than your opponent. Nowhere is this truer than at the operational and strategic levels of war. The larger the numbers, the higher the probability of a successful major operation or campaign. At some point, sheer numbers are simply overwhelming, no matter what the level of skills, morale and discipline, or training and soundness of doctrine of the opposing force. In many examples a numerically superior force was a decisive factor in achieving a victory over a better armed, trained, and led but numerically smaller force. One

of the major contributing factors in the Soviets' success in World War II was their overwhelming superiority in numbers of men, artillery, and aircraft over their German opponents.

In planning and executing a major operation or campaign, overwhelming force should be used at a decisive place and time. In general, there is no such thing as being too strong if the aim is to achieve a quick and decisive victory. In practice, this means to "mass" one's forces in the sector of main effort and assign relatively weak forces in the sectors of secondary effort. Today, a force does not necessarily need to be physically "massed," but to have mass effect created at a decisive place and time. It is the application of overwhelming military force that will seize the initiative from the enemy and, when applied successfully, defeat him. Maximum combat power at the decisive time and place can be achieved only with the proper arrangement of actions by all available military sources of power. However, not only military but also nonmilitary sources of national or alliance or coalition power should be synchronized to accomplish the assigned operational or strategic objectives. Von Clausewitz observed that to achieve strength at the decisive point depends on the strength of the army and on the skill with which this strength is employed. The aim is then to take the field in the greatest possible strength, either to get the upper hand or to at least make sure the enemy does not. One of the reasons for the Germans' success in their invasion of France in May 1940 was that they concentrated 42 divisions in their sector of main effort, against only nine poorly equipped and trained French divisions in the Ardennes.

In general, the accomplishment of operational or strategic objectives requires the employment of larger and more diverse forces than does the accomplishment of tactical objectives. In the past, numbered armies and, in some cases, army corps were used for conducting major operations. The overall number of ground forces for the OIF was clearly inadequate for the task on hand. The Office of the Secretary of Defense (OSD) apparently concluded that for the campaign against Iraq much smaller forces could be used than were used in the Gulf War of 1990–1991. What was not taken into account was the difference in the strategic objectives of these two campaigns. The objective in 1991 was limited: evicting Iraqi troops from Kuwait. In 2003, however, the objective was unlimited: regime change in Baghdad and the occupation of a country of 25 million. The OSD apparently mislearned the lessons of the war in Afghanistan (Operation Enduring Freedom, or OEF). In OEF, several hundred Special Forces on the ground, in combination with airpower, were a critical factor in



## Gelesen

in: NZZ vom 30. Januar 2004. *Verstärkung der US-Army angekündigt.*

«Das amerikanische Heer, dessen Personalbestand durch Gesetz auf 482000 festgeschrieben ist, soll um 30000 Mann verstärkt werden. Das teilte General Peter Schoomaker, der Stabschef der US-Army, vor dem Streitkräfteausschuss des Repräsentantenhauses in Washington mit. Die Erhöhung sei durch Verteidigungsminister Rumsfeld autorisiert worden, der sich dafür auf Notstandsvollmachten beruft.

Einige Mitglieder des Ausschusses fordern solche Verstärkungen seit längerem. Sie wurden nun durch die Ankündigung überrascht, denn Rumsfeld hatte sich bisher stets gegen eine solche Massnahme ausgesprochen. Er hatte erklärt, dass Umschichtungen und verbesserte Effizienz die Belastungen, denen das Heer durch seine Aufgaben im Irak und in anderen Teilen der Welt ausgesetzt sei, verringern werden.»

*Ist damit die Rumsfeld Doktrin gescheitert?*

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a rather quick collapse of the Taliban regime. However, the success in Afghanistan would have not been possible without many thousands of hardened fighters of the Northern Alliance and other proxies. It was also apparently forgotten that a lack of U.S. troops on the ground in the critical battle at Tora Bora in December 2001 allowed Osama bin Laden and his inner circle and the leaders of the Taliban to escape into Pakistan.

The total number of coalition troops for OIF was based on the planning guidance from the OSD. Allegedly, the OSD wanted a force no larger than 60,000 troops (other sources say 80,000) plus overwhelming airpower, believing that the Iraqis would capitulate within a few days. Another assumption that turned out to be wrong was that the Iraqi Shiites would welcome American troops as liberators and that some key generals would surrender their entire units. In contrast, the CENTCOM's staff initially called for 500,000 troops (some sources say 200,000) based on an estimate of Iraqi forces as high as 375,000 troops. After much discussion, the final plan called for the deployment of 151,000 troops. The coalition forces assigned to the combat phase of OIF clearly would have been inadequate if the Iraqis had offered much stiffer resistance than they actually did.

Another problem with the planning of OIF was that too much attention was given to the combat phase of the campaign. What was ignored was that combat and postconflict or stabilization phases are inseparable. They must be planned and executed as a seamless whole; the strategic objective accomplished in the combat phase must be consolidated and exploited in the postconflict phase of a campaign. Failure in that

phase means failure to achieve the desired strategic end state. In other words, no matter how successful the combat phase is, the campaign is won or lost in the postconflict phase. While it is possible, as OIF showed, to defeat a weak opponent quickly, to consolidate the strategic success generally requires a larger number of one's forces on the ground. Also, a stabilization force should have a very different composition from the one employed in the combat phase. The problems in the postconflict phase of OIF were compounded because the final plan envisaged a quick advance toward Baghdad and seizing some initial operational objectives but bypassing major cities and towns. The result was that too many of the Iraqi forces were not destroyed but were allowed to melt into the population. The insufficient number of troops also did not allow coalition forces to seize and control a rather large part of Iraqi territory west of Baghdad and the area between Baghdad and Tikrit. The U.S. forces were not present in substantial numbers in that part of Iraq for almost two months after the fall of Baghdad. This allowed Saddam loyalists to organize resistance and then mount ambushes and attacks against U.S. convoys that resulted in increasing numbers of losses for U.S. forces. Currently, out of some 125,000 coalition troops in Iraq, perhaps no more than 1/2 are combat-trained for security duties. But even in combat forces there is a large non-combat element.

In general, the larger the force, the greater the freedom to act for both the political and military leadership. In operational terms, the commander's freedom to act in executing the assigned mission is framed by the boundaries established by national policy and strategy; these limitations are the products of the given military (space, time, and force) and nonmilitary (politics, diplomacy, economic conditions, social conditions, the law, etc.) factors. Freedom of action means that in accomplishing assigned tasks the operational commander can use both military and nonmilitary sources of power at a place and time he has freely determined. The area of the operational commander's actions must be at least large enough to always give him several options from which to choose. Conversely, the operational commander should try to obtain and maintain freedom of action and reduce the enemy's freedom to act from the very outset, as well as to derail enemy plans. In exercising his freedom to act, the commander should balance the given operational factors – space, time, and force. Obviously, the larger and more capable the forces at hand, the larger the space one can use to act freely and impose one's will on the enemy. In general, reinforcements or operational/strategic reserves expand freedom of action for one's forces.

## Conclusion

NCW advocates' claims about the significant benefits of the new information technologies are not without merit. The netting of one's forces, when done properly, could prove the decisive edge even in fighting a strong and sophisticated opponent. However, the gains in combat power of a netter force essentially depend not on raw organic power such as firepower and mobility, but on one's ability to decide and act faster than one's adversary. Such an increase in one's combat power depends on many intangible factors, but primarily on the human element. Among other things, micromanagement, excessive command and control, and poorly educated and trained commanders and staffs could not only drastically reduce but even eliminate any potential gain achieved through superior information technologies. As in the past, new technologies, when properly applied, will reduce the need for larger forces. But ground forces seem to be an exception to this, because armies have to fight in a much more difficult, diverse, and demanding environment than the air forces and navies do. There is little doubt that smaller but much better equipped, trained, and led armies can defeat weak and unsophisticated opponents. However, the postconflict phase, especially when combined with insurgency, puts a premium on numerically larger forces. The danger is to become so mesmerized with the new technologies as to lose sight of the wider and broader framework in which a war is fought. Experience also has repeatedly shown the fallacy of relying exclusively on technological superiority and then arbitrarily reducing the size of one's armies. Technology must always be properly integrated with other, mostly intangible, elements of one's combat power, specifically combat leadership, unit cohesion, morale and discipline, doctrine, and training. Otherwise, the new technologies will be of little or no help in defeating a stronger and more agile opponent.

Footnotes can be obtained at the author. ■



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