

# The Quest for a New Airpower Strategy

## Systemic Paralysis and Systemic Empowerment

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Carl von Clausewitz (1780–1831) spent a large portion of his 51 years attempting to develop a coherent theory of warfare that linked strategy to tactics. He defined strategy as the use of the battle for the purposes of the war. Strategy formed the plan of the war, mapped out the proposed course of different campaigns that comprised the war, and regulated battles that had to be fought in each of the campaigns.<sup>1</sup>

Basil H. Liddell Hart (1895–1970) expanded the term beyond its military meaning by referring to “grand strategy” rather than the Clausewitzian “military strategy” or “pure strategy.” According to Liddell Hart, Clausewitz’s definition was too narrow

and battle-centric, implying that battle was the only means to a strategic end. Stated differently, while war bounded the horizon of strategy, grand strategy had to look beyond the war to the subsequent peace.<sup>2</sup>

Noted historian Alan Stephens offered a further refinement, defining strategy as the art of *winning* by purposely matching *ends*, *ways*, and *means*:

First, [decision makers] must clearly understand what, in the prevailing circumstances, they mean by winning. And second, they must ensure that their desired ends are realistic, clearly defined, and consistent with political objectives; that the ways chosen to pursue those ends are feasible; and that the available means are suitable and sustainable. The importance of establishing and maintaining a logical relationship between winning and ends, ways and means cannot be overstated.<sup>3</sup>

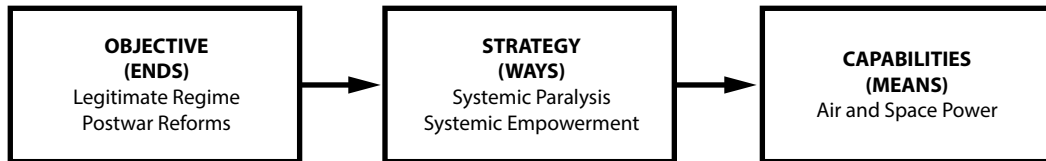
This definition is especially useful when assessing North Atlantic Treaty Organization (NATO) and US-led operations over the last 25 years. When examining the desired outcome of “crisis management” from the mid-1990s on, we see that operations in Bosnia-Herzegovina (Operation Deliberate Force), Kosovo (Operation Allied Force), Afghanistan (Operation Enduring Freedom), Iraq (Operation Iraqi Freedom), and Libya (Operation Unified Protector) have a common denominator: ultimately, the West has sought broad political, socioeconomic, and military reforms in these states. As soon as military objectives are met and the combat phase transitions into postconflict activities, NATO members and their partner nations focus on broader transformations, including security sector reform.<sup>4</sup>

The postmilitary goal of “winning the peace,” as opposed to “winning the war,” basically consists of establishing a functioning, legitimate government structure based on Western liberal values. That goal may not be formally acknowledged, but it would be logical, prudent, and pragmatic for NATO to acknowledge and plan for this desired outcome and thus avoid squandering initial military successes.<sup>5</sup>

Logically, therefore, when NATO members find it necessary to conduct military operations short of “collective defense,” they should consider designing military campaigns with this objective in mind from the outset so that the transition between military combat and follow-on reform processes is as seamless as possible. This does not mean that NATO should engage directly in or be responsible for all aspects of nation building but that NATO should plan and conduct operations so that military engagement contributes to creating the conditions for attaining the desired end state of functioning, legitimate governance. Although that ideal may prove unattainable, it provides an overall framework in which NATO adapts its goals for postwar reform to the circumstances.

With those caveats in mind, this article suggests that NATO members develop military-strategic concepts that better link the application of force in general—and airpower specifically—to the ultimate objective of all NATO-led interventions: winning the peace through sustainable postconflict reform. Doing so requires a conceptual approach that views the nation of interest as a *system*, coupled with a strategy that seeks to combine *systemic paralysis* (of the opponent) with *systemic empowerment* (of the supported ally) using both lethal and nonlethal means in pursuit of *strategic effects*.<sup>6</sup> The article calls for improved linkage between statecraft and military power as well as between security sector reform and airpower through strengthening NATO centers of excellence. It proposes a generic, system-level ap-

proach to warfare and subsequent nation building that challenges traditional military planning, which usually centers on “the battle” and views nation building strictly as the domain of civil authorities. It also suggests that airmen can play key roles in building and sustaining local institutions as well as developing host nations’ aviation capabilities. After proposing that NATO adopt the framework depicted in the figure below for its approach, the remainder of the article elaborates on these concepts.<sup>7</sup>



### Winning: Safe and Secure Environment

Simply stated, “winning” consists of establishing a safe and secure environment that can sustain itself without external assistance and that fosters economic growth and eventual prosperity. The details of the desired end state will vary from one NATO-led intervention to another because each situation presents unique features and challenges. For the purposes of this article, it is useful to define three conditions that must be met to achieve “good governance.” First, a regime must establish and maintain internal security as well as law and order. Second, it must enable people to earn a reasonable living, have access to education and social services, and practice their religion of choice. Finally, a regime must encourage trust and loyalty by instituting and supporting effective anticorruption policies, a credible justice system, integrity-building measures, professionalism, and merit-based selection in the civil service. If people feel safe in pursuing their daily activities, can provide for themselves and their families, and view their government as legitimate, then opposition groups will find it more difficult to garner levels of popular support that would endanger the basic level of security and stability sought by NATO and its allies.

### Ends: Legitimate Regime

Efforts aimed at security sector reform seek to facilitate the development of effective structures with decision-making processes under democratic, civilian control. NATO’s Partnership for Peace Program has proven itself an effective methodology for supporting and encouraging reforms, including the judicial, economic, and educational spheres.<sup>8</sup> NATO should not simply project a Western model into other social and cultural environments; rather, the partner government (or opposition movement) should respect and accept the basic principles of “good governance”—transparency, responsibility, accountability, participation, and responsiveness (to the needs of the people)—before Western states commit resources to supporting it.

Freeing a country from a regime that preys on its citizens and its neighbors is one thing, in which NATO's preponderance of military power can prove decisive; building up a nation on the basis of democracy, individual liberty, and the rule of law is quite another. The question therefore becomes, how can NATO shape a military campaign from the start to support the objective of sustainable peace? Such a campaign would help a benign government anticipate and avert rather than react to crisis, instill confidence among its population, increase legitimacy, and lay the foundation for a future relationship with NATO. All of this requires strong international cooperation and dedication. Most international organizations prefer to coordinate rather than be coordinated, but a credible international politico-military organization must take the lead. Such coordination has so far been the missing link in modern operations, and implementing it might help reduce the gap between successful military operations and confused, prolonged, and incomplete or ineffective peace-building efforts.

### Ways: Systemic Paralysis and Systemic Empowerment

Although Western defense forces have achieved great success in modernizing their equipment, force structure, and training, that modernization has not extended into strategic thinking. Thus, current military doctrine governing regular and irregular warfare continues to emphasize war-fighting capabilities rather than the opponent's overall system and strategic effects. This practice stems largely from the still-pervasive belief that only ground forces can ensure military victory and that enemy leaders will capitulate only when they admit defeat on the "battlefield."<sup>9</sup>

Joint campaign plans favor physical destruction of the adversary's ground forces, and operations are designed to "seize and hold ground," "close with the enemy," and "search and destroy." Consequently, airmen are often constrained to use airpower only to support the ground commander's scheme of maneuver and to destroy targets directly related to the adversary's ability to engage in combat. Although airpower has proven itself highly effective at taking out tanks, artillery, and supplies, this line of thinking imposes severe limitations since defeating the enemy's armed forces removes only one aspect of the problem. Western strategists must overcome their obsession with "the battle," concentrating instead on comprehending both enemy and friendly systems and their leaderships, which represent not only the cause of the conflict but also the source of any sustainable solution. The systemic approach emphasizes that military force is but one of several political instruments for dealing with an opponent. The works of J. F. C. Fuller, Basil Liddell Hart, John R. Boyd, John A. Warden III, and others offer excellent points of departure in this regard although, admittedly, they tend to focus more on paralysis than empowerment.<sup>10</sup>

Systemic paralysis would prevent a nation, government, or key forces from executing the actions they favor while systemic empowerment would create better conditions for friendly actors to assume power. The former sets out to degrade, destroy, disrupt, and deny, but the latter seeks to encourage, enhance, establish, and educate. The duality at play is not easy but provides direction and perspective: paralysis and empowerment are partly complementary and partly subject to simulta-

neous and sequential actions, depending on the context. Moreover, this dual concept entails two lines of operations that should be conducted in parallel: one *process oriented* to achieve *psychological* impact and the other *form oriented* to achieve *physical* impact. Process concerns the intangible—mental and moral—aspects of warfare while form deals with the material sphere.

As an illustration, systemic paralysis sets out to weaken and freeze the opponent's leadership, its decision-making processes, and its mechanisms for command, control, management, and communication without permanently crippling large amounts of the nation's infrastructure. Disrupting an opponent's decision-making calculus renders it increasingly deaf, dumb, and blind—thus unable to act constructively and coherently. This approach uses incapacitation to neutralize key elements of the adversary temporarily, break his cohesion, disrupt his adaptability, and deprive him of timely reorientation. Unable to keep pace with the tempo of events, the adversary's decisions and actions become strategically irrelevant. When NATO also works with local friendly forces, this combination of psychological and physical effects can prove difficult to withstand.

*Systemic empowerment* sets out to enhance and encourage the local actors that NATO wishes to strengthen: the alternative to the unacceptable regime. If NATO members and partners decide to become involved in an “out-of-area” theater in which insurgents pose a threat to the government they seek to support, the preferred method should be to advise and support the host nation. NATO should concentrate on *advising, training, educating, and equipping* the local government and its military and security forces, avoiding direct combat unless absolutely necessary. This approach can deter potential insurgents and give indigenous forces the upper hand early if military confrontation does arise.

This concept ensures that strategy focuses on war ending rather than war fighting, thus eluding the pitfall of reducing strategy to tactics. The systemic approach views both friends and enemies as systems—with centers of gravity, critical vulnerabilities, and key linkages. Although “systems” are not necessarily mechanical and linear—and in fact may be highly complex and adaptive—even an agile and decentralized enemy can still be viewed as a system. An in-depth system-of-systems analysis allows for a broader and all-inclusive approach to affecting key political and physical nodes and connections. Actions that engage centers of gravity, target sets, and individual targets should contribute to attaining the predefined desired strategic effects and should set the conditions for follow-on activities such as establishing good governance and nation-building measures.

## Means: Air and Space Power Capabilities

Airpower should play a central role in this approach since it can function as both a political tool and a strategic weapon. Modern fighter-bombers, with their unique combination of speed (maneuver), intensity of force application (precision), and ability to attack from beyond enemy range (stealth and standoff), give new meaning to the three classic elements of warfare: mobility, strike, and protection.<sup>11</sup> Similarly, space capabilities are redefining the concepts of reach and persistence, making

the extraordinary precision of today's weapons possible in the first place. Recent improvements in air and space technology open new paths to using resolute military force without deploying large numbers of troops, thus approaching the ideal of winning without extensive fighting on the ground and suffering the associated casualties. Why should combatants enter a tactical “red zone” if strategic and operational effects can be dictated from a safe distance? Why should they occupy territory if they can control events from afar?

Avoiding traditional wars with their perverse, long-lasting impacts—thus lessening the suffering and recovery time of the defeated party—can reduce postconflict resentment and make peaceful coexistence more likely in the future. Through its unique characteristics of responsiveness, scalability, lethality, and accuracy that minimizes risk to lives on both sides, airpower offers political decision makers and military commanders extraordinary flexibility and potential strategic impact. It creates significant advantages by using *tempo* as a strategic quality in its own right. Only recently has technology made it possible to attack *multiple centers of gravity* in parallel regardless of their locations, to strike them in very *compressed time frames*, and to control the degree of damage inflicted.<sup>12</sup>

Modern airpower can hit targets with great accuracy (precision of impact), but the higher level—*precision of effect*—makes the difference. Space capabilities extend that precision even further. However, the ability to strike anything must not translate into an approach of striking everything. Proper analysis is critical: choosing the right targets is not a technical exercise. Instead, it requires knowledge of and insight into opponents' culture, the inner workings of their power base, and their interior dynamics. Again, the concepts of systemic paralysis and systemic empowerment emphasize the importance of acting discriminately to increase the likelihood of desired effects and decrease the likelihood of unintended consequences.

By streamlining the winning-ends-ways-means nexus, airpower can play a pivotal role in linking the application of force (both lethal and nonlethal) to creating conditions that promote development of stable government. Military planners must first establish clear objectives for operations and a strategy for realizing those objectives based on systemic paralysis and systemic empowerment. In examining the potential contributions of each service, the strategic discussion must recognize what airpower can contribute either as an independent, offensive, and possibly decisive instrument or as an enabler and a facilitator for other operations and efforts. With the ends and ways established firmly, the leadership should then turn its attention to optimal use of the four main airpower roles: control of the air; intelligence, surveillance, and reconnaissance (ISR); strike; and maneuver.

To perform these roles and their associated missions effectively, NATO members need to improve capabilities in various areas. Traditional topics of discussion in the area of military technology include low observability (or stealth), improved fusion of systems to gain knowledge dominance, and similar advances in the ability to find, identify, track, and prosecute air and surface targets from a substantial distance. When combined, these technologies radically redefine mass, speed, maneuver, strike, and situational awareness.

This does not constitute an argument for “airpower alone” but for a shift away from deploying huge numbers of friendly troops on the ground “out of area.” The

new precision airpower capabilities allow for novel forms of intervention in international crises. The old saying “If the enemy is within range, so are you” is no longer always true.

Operation Enduring Freedom saw the employment of small groups of special forces assisting indigenous ground units that, in combination with precision airpower, succeeded in toppling the Taliban. During Operation Iraqi Freedom, the United States employed a similar concept in the north of Iraq, this time pairing special forces with Kurdish Peshmerga. Combined with the support of precision strikes and ISR assets, 13 Iraqi divisions were fixed in the north and largely rendered ineffective. In 2011 during Operation Unified Protector, NATO to all intents and purposes employed the so-called Afghan Model in Libya. This time, after having blocked the advance of Libyan regular troops toward Benghazi, a small number of special forces of various nations trained the Libyan rebel forces. The combination of persistent air surveillance and air strikes was instrumental in bringing about the overthrow of the Gadhafi regime although this was never a NATO objective.<sup>13</sup> During Operation Serval (2013–14), small numbers of widely dispersed French ground troops, combined with aviation and fixed-wing air strikes, managed to block the advance of insurgents in Mali. All of these operations proved quite successful from a military perspective, but they were not connected to a postconflict order and thus failed to promote long-lasting stability.

*Aviation advisors* who are sufficiently culturally aware to work with host nations in the long term to build air and space capabilities can serve as key elements in a larger development and stabilization strategy. This approach demands skills and equipment that can be transferred to the host nation and calibrated to available resources. NATO would first have to determine what the host nation wants and needs in terms of airpower capabilities before establishing what both the recipient and NATO can afford; it would also have to place the emphasis on people, not technology. Because most conflicts now occur in the poorest countries of the world, even limited air and space power capabilities can make a significant difference. Some people argue that it is too expensive and too manpower-intensive to help other states build and maintain such capabilities, but the cost of becoming directly involved in combat is far greater.

Having studied 17 major counterinsurgency (COIN) campaigns, Dr. James S. Corum asserts that host nations can employ airpower with great effectiveness if they have some help. Small nations primarily need basic preparations and simple low-tech equipment, combined with instructions on how to plan, lead, and execute joint campaigns. Corum identifies six key areas in which airpower traditionally has made its mark during COIN operations: surveillance and presence, troop transportation (primarily helicopter transport of light infantry forces), armed strikes (primarily close air support), medical evacuation, liaison, and psychological operations.<sup>14</sup>

Successful campaigns combine military operations with government reforms, education and propaganda efforts, and economic programs that address the needs of the population; as a result, such campaigns win over the population.<sup>15</sup> In this sense, the military must engage in nation building. Supporting countries must acknowledge the actors and dynamics of the host society to facilitate a constructive working relationship among the *government*, its *people*, and its *military and security*

*forces*. They should therefore focus on enabling the supported nation to build capabilities and competencies in accordance with the principles of good governance; engage with the population in rural and urban areas to establish intentions, direction, determination, and confidence; and conduct comprehensive security sector reforms involving the military, police, and intelligence services. Developing air forces, both military and commercial, must be seen as part of this larger enterprise so that the effort does not detract from, but contributes to, the legitimacy of the supported government.

NATO's Partnership for Peace Program has a template that could serve as a generic point of departure for defense and security sector reform. Such a program could train selected *aviation advisors* who understand the profession of airmen; have technical, tactical, and organizational experience and skills; and possess a comprehensive understanding of COIN operations as well as the local conditions in which they will operate. Properly implemented advice and support will have a deterrent effect on insurgents, reducing casualties and cost if a situation escalates to violence and armed clashes. Air and space power has much to contribute; therefore, advising, training, and equipping partner air forces could form the major centerpiece of NATO's COIN policy and strategy.

Part of the solution consists of developing modern COIN theories and doctrines that take air and space power into account in two ways. On the one hand, air and space power can contribute to improving social and economic conditions, winning "hearts and minds" in accordance with the *soft power* principle. On the other hand, air and space power represents effective and efficient *hard power* because it can support policies such as "search and destroy," "containment," and "blockage" through precision targeting. NATO's Comprehensive Approach can serve as a viable point of departure for improving COIN theory and doctrine.<sup>16</sup> Although the strategy of systemic paralysis is clearly preferable to killing, destruction, and attrition, these parameters are also part of the equation; ideals and reality do not always match.

Augmenting airpower with space capabilities can supply precision effects in both deterring an opponent and enabling the subsequent development of sustainable good governance. Space as the ultimate high ground offers an ideal vantage point for observation over a wide area. Advances in both the resolution of images and the amount of information contained in those images now allow an astonishing number of previously unimagined applications. For example, *satellite crop monitoring* could enable a friendly government to recognize the signs of drought or blight and plan in advance to transport food and new seed supplies into affected areas, thereby preventing hardship and nurturing popular support. Alternatively, governments could identify areas growing crops such as opium poppies and take appropriate action. Such monitoring would help create a sustainable and robust society after the conflict. Civilian and commercial organizations might actually execute these missions, but NATO could help coordinate them so that they align with the larger reform strategy. Here, again, airmen associated with NATO could contribute valuable advice based on their understanding of how best to use these platforms.

A similar argument can be made for *monitoring natural disasters* from space. Detailed knowledge of local situations can help a government make effective plans to mitigate the effects of disasters as rapidly as possible. NATO could draw on many



civilian and commercial options to aid friendly governments, including the newly launched European Sentinel-1A satellite and even a European center of excellence. The same resources employed for monitoring natural disaster can be used to *observe refugee camps and movements* and to *detect and document genocide*.

As noted, the capabilities used for these activities may or may not be military; for example, in addition to military satellites usually optimized for intelligence purposes, many commercial satellites and drones monitor various phenomena. Coordinating the use of these many resources presents the key challenge—one well suited to an international organization such as NATO. Smaller nations in particular may be unable to afford complex, expensive military air and space systems, but with appropriate expert guidance, they could develop a cadre of expertise in how to utilize all of the various resources most effectively in activities that include both deliberate planning and crisis response. Centralized coordination would avoid duplication and enable optimal allocation of existing infrastructure and assets, enabling NATO and its members to obtain the greatest value from military and civilian capabilities and ensure a logical transition between them.

### Prospects: The Winning-Ends-Ways-Means Nexus

It has long been a truism that military victories do not necessarily yield political success—to a large extent because military plans focus on “the battle” rather than on the actual end-state objective: a stable, benign government. Unfortunately, definition of an end state that is both legally and morally credible has been in many ways the missing ingredient in modern strategy and warfare. This article has proposed a conceptual approach that views the nation of interest as a system linked to a strategy that seeks systemic paralysis of opponents and systemic empowerment of legitimate forces through the use of air and space power in pursuit of strategic effects.

Fundamentally, NATO should envision a functioning state aligned with common NATO and Partnership for Peace values as the enduring legacy of any intervention. Existing bodies that plan and conduct air operations should take into account both the need to paralyze the enemy and the need to enable long-term good governance by the desired regime. To bring about this result, NATO members should consider creating planning cells in appropriate military institutions and organizations that would coordinate the use of all data made available through the new ISR systems to advise allied governments. Although some individuals might argue that such a cell would fit best in the foreign ministry rather than a ministry of defense, military officers have been trained and educated to devise complex, overarching plans. The key is to integrate the uses of airpower with other forms of military and political instruments of power to maximize both systemic paralysis and systemic empowerment.

Some individuals might suggest that NATO cannot bring about “good governance” in all nations where it decides to intervene militarily. Even so, such an objective gives NATO the necessary direction for establishing “a better state of peace” and a basis for prudent, deliberate, and comprehensive end-game planning. Others might argue that it is not NATO’s place to take the lead in fostering government reform, but this article proposes that NATO conduct military operations in a way that en-

ables and supports a subsequent reform effort. No other organization is in a better position to do so. NATO leaders should always think through the entire winning-ends-ways-means nexus prior to deciding on military intervention. The grand end-game strategy cannot remain terra incognita. NATO must accept this responsibility if it is to prevail in future conflict.

This approach will not succeed in all circumstances; nevertheless, it offers a conceptual framework that challenges the notion that victory depends on force-on-force engagements and proposes a better use of air and space power to win the peace for which presumably the war is fought. NATO cannot and should not try to remedy all the ills of the world, but the organization does need to develop a conceptual framework that clearly defines end-state objectives before military operations begin.

As integral players in the process, airmen must understand, believe in, and teach end-game strategy as the foundation of airpower.<sup>17</sup> They must embrace a specifically air-minded approach. In other words, they must stop accepting the view of airpower as merely an adjunct to or substitute for ground-based operations. Instead, they should explore and define how to connect airpower directly to the desired end state of peace and stability. In doing so, they must develop a new vocabulary and terminology that helps them become effective advocates for a new conceptual approach. To bring this about, NATO member states should conduct in-depth studies that explain what joint air and space power can offer political and military leaders in the context of a strategy of *systemic paralysis* (of the opponent) and *systemic empowerment* (of the supported ally). These studies would remind NATO of previous lessons and set the conditions for improved outcomes in the future. In addition, NATO should consider the following recommendations:

- *Strengthen the Civil-Military Cooperation Centre of Excellence (CCOE).*<sup>18</sup> NATO should consider developing unified concepts that link the application of air and space power to security sector reform. The study could be considered “the Comprehensive Approach 2.0” and a reboot of “effects-based operations” but would emphasize turning theory into practice because the true value of theory is expressed in better action. Sponsoring nations must give the CCOE a clear mandate to produce deliverables and allocate a dedicated task force comprising both military and civilian members and including air and space experts; security sector reform analysts; political, judicial, and sociocultural advisors; non-governmental organizations; and specialists knowledgeable about particular societies, countries, and regions. This task force could also develop a concept for ways of strengthening security sector reform in NATO’s Partnership for Peace Program, focused on building capabilities and linking those capabilities to other sectors of governance. The CCOE could offer courses and seminars, possibly based on experience in Afghanistan, Iraq, and elsewhere, to educate officers (including foreign area officers) and political advisors who might become involved in future operations.
- *Strengthen the Joint Air and Space Power Competence Centre (JAPCC).*<sup>19</sup> NATO should ensure that the JAPCC becomes a dynamic and vibrant environment for mastering air and space history, theory, strategy, and doctrine; a milieu for cultivating broader knowledge of and insight into air and space; and a setting

in which such experts have the opportunity to communicate their narrative to politicians, the media, and fellow officers, and to interact for mutual benefit with experts from all sectors of governance. Their activities must have a strategic and conceptual focus—not a tactical and technological one. NATO members and partners need to dedicate the “best and brightest” to such assignments with the objective of producing a series of high-quality, RAND-like studies as well as a serious outreach plan for sharing the findings with politicians, officers, non-defense civil servants, and academics. In this way, the JAPCC could become an intellectual hub for new, forward-leaning, air-minded strategic thinking; furthermore, its sponsoring nations should consider upgrading the JAPCC’s mandate, promoting participation, and making better use of the center’s resources. The JAPCC should also consider taking the initiative to develop a new dictionary of airpower terminology that accurately captures today’s airpower roles and missions, ensuring that this vocabulary makes sense when connecting national policy, reform, and airpower.<sup>20</sup>

- *Establish advisory and support teams for host nation air and space power capability and competence building.* As described above, NATO should consider revitalizing the concept of *air advisors* with allocated resources for air and space power capability building in partner states. Such an effort can build on burden-sharing principles in which some states may provide specialized capabilities. Advising, training, and equipping partner-nation police, intelligence services, and militaries, as well as applying mechanisms that strengthen state and government, will offer the most effective means of discouraging, deterring, undermining, and defeating insurgents. Such teams must be joint and combined; further, they must operate in concert with representatives of several agencies and departments within the umbrella of defense and security sector reform. The centers of excellence mentioned can serve as conceptual reachback institutions.

Although strengthening these two centers of excellence offers the key to developing new concepts based on *systemic paralysis* and *systemic empowerment*, NATO should also explore better ways to increase dialogue and cooperation among all its centers of excellence to make the most of NATO’s resources and its ability to coordinate and conduct activities across the full spectrum of intervention.

The concepts and recommendations presented in this article are cost effective, build on established institutions and practices, and suggest directions for the environment after the International Security Assistance Force completes its mission. Ideally, NATO could build on this foundation to better match the application of force to the overall purpose of any military intervention: winning the peace. ✪

## Notes

1. Basil H. Liddell Hart, *Strategy*, 2nd rev. ed. (London: Faber & Faber, 1967), 319.
2. John Andreas Olsen, “Introduction,” in *The Practice of Strategy: From Alexander the Great to the Present*, ed. John Andreas Olsen and Colin S. Gray (Oxford, UK: Oxford University Press, 2011), 1–3.
3. Alan Stephens and Nicola Baker, *Making Sense of War: Strategy of the 21st Century* (Cambridge, UK: Cambridge University Press, 2006), 13.

4. For more detail on security sector reform (SSR) as a concept, see, for example, “Security Sector Reform,” United Nations Peacekeeping, accessed 17 March 2015, <http://www.un.org/en/peacekeeping/issues/security.shtml>; Security Sector Reform Resource Centre, accessed 17 March 2015, <http://www.ssrresourcecentre.org/>; “Security Sector Reform,” United Nations, accessed 17 March 2015, <http://unssr.unlb.org/>; and US Agency for International Development, US Department of Defense, and US Department of State, *Security Sector Reform* (Washington, DC: US Agency for International Development, US Department of Defense, and US Department of State, 2009), <http://www.state.gov/documents/organization/115810.pdf>. The concepts “security sector” and “security sector reform” first appeared in the late 1990s, and although these relatively new terms have become widely used, no single definition has been established. For the United Nations, and as outlined in the *Report of the Secretary-General on Security Sector Reform*, SSR describes a process of assessment, review, and implementation as well as monitoring and evaluation of the security sector. The goal of SSR, as stated in the mentioned report, is the “enhancement of effective and accountable security for the State and its peoples, without discrimination and with full respect of human rights and the rule of law.” See General Assembly Security Council, *Security States and Societies: Strengthening the United Nations Comprehensive Support to Security Sector Reform; Report of the Secretary-General* (New York: General Assembly Security Council, 13 August 2013), 3, [http://issat.dcaf.ch/content/download/35390/514513/file/Second%20Sec%20Gen%20Report%20on%20SSRSecuring\\_States\\_and\\_Societies\\_A%2067%20970\\_S%202013%20480.pdf](http://issat.dcaf.ch/content/download/35390/514513/file/Second%20Sec%20Gen%20Report%20on%20SSRSecuring_States_and_Societies_A%2067%20970_S%202013%20480.pdf).

5. See, for example, Fred Charles Iklé, *Every War Must End*, 2nd rev. ed. (New York: Columbia University Press, 2005); and Patricia L. Sullivan, *Who Wins? Predicting Strategic Success and Failure in Armed Conflict* (Oxford, UK: Oxford University Press, 2012).

6. It may be difficult to identify allies, but at some point, NATO must think about an acceptable leadership—and it makes sense to do so prior to an armed conflict.

7. This is a revision of “A New Air, Space and Cyber Concept,” which the author submitted as part of JAPCC’s *Future Vector Project* in 2014. I am grateful to my reviewers for significant contributions: Pete Engelmann, Richard P. Hallion, Peter Layton, Holger H. Mey, Margaret S. MacDonald, Rohan Maxwell, Phillip S. Meilinger, Richard T. Reynolds, Alan Stephens, and John A. Warden III.

8. See Rohan Maxwell and John Andreas Olsen, *Destination NATO: Defence Reform in Bosnia and Herzegovina, 2003–13*, RUSI Whitehall Paper 80 (Abingdon, England: Routledge Journals, 2013).

9. For details on this view, see Robert A. Pape, *Bombing to Win: Air Power and Coercion* (Ithaca, NY: Cornell University Press, 1996).

10. For strategic paralysis, see, for example, David S. Fadok, *John Warden and John Boyd: Air Power’s Quest for Strategic Paralysis* (Maxwell AFB, AL: Air University Press, 1995). For further exploration, see John Andreas Olsen, ed., *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd* (Annapolis, MD: Naval Institute Press, 2015).

11. Alan Stephens, “Fifth-Generation Strategy,” in Olsen, *Airpower Reborn*, 128–55.

12. John A. Warden, “Smart Strategy, Smart Airpower,” in Olsen, *Airpower Reborn*, 93–127.

13. For a detailed analysis of Operation Unified Protector, see Christopher S. Chivvis, *Toppling Qaddafi: Libya and the Limits of Liberal Intervention* (Cambridge, UK: Cambridge University Press, 2014); and Kjell Engelbrekt, Marcus Mohlin, and Charlotte Wagnsson, eds., *The NATO Intervention in Libya: Lessons Learned from the Campaign* (Abingdon, Oxon: Routledge, 2013). For the Afghan model, see, for instance, Erica D. Borghard and Constantino Pischedda, “Allies and Airpower in Libya,” *Parameters* 42 (Spring 2012): 63–74.

14. James S. Corum, “The Right Airpower Doctrine for Unconventional Wars” (paper presented at the Turkish Air War College Conference, Istanbul, March 2013); and Corum, “The Role of Airpower in Current and Future Small Wars,” in *Aerospace Power: Beyond 100 Years of Theory and Practice*, ed. James Fergusson (Manitoba: Centre for Defence Studies, University of Manitoba, 2005), 67–84.

15. See David Petraeus, “Learning Counterinsurgency: Observations from Soldiering in Iraq,” *Military Review* 86, no. 1 (January–February 2006): 2–12. Petraeus lists 14 “observations.” For further context, see Beatrice Heuser, *The Evolution of Strategy: Thinking War from Antiquity to the Present* (Cambridge, UK: Cambridge University Press, 2010), 419–37.

16. For more on the comprehensive approach, see “A ‘Comprehensive Approach’ to Crises,” North Atlantic Treaty Organization, 13 November 2014, [http://www.nato.int/cps/en/natolive/topics\\_51633.htm](http://www.nato.int/cps/en/natolive/topics_51633.htm).

17. See Col John A. Warden III, "Strategy and Airpower," *Air and Space Power Journal* 24, no. 1 (Spring 2011): 64–77, [http://www.airpower.maxwell.af.mil/airchronicles/apj/2011/2011-1/2011\\_1\\_04\\_warden.pdf](http://www.airpower.maxwell.af.mil/airchronicles/apj/2011/2011-1/2011_1_04_warden.pdf).

18. See Civil-Military Cooperation Centre of Excellence, accessed 17 March 2015, <http://www.cimic-coe.org>.

19. See Joint Air Power Competence Centre, accessed 17 March 2015, <http://www.japcc.org>.

20. I am particularly grateful to Alan Stephens for the "dictionary" recommendation, made in correspondence of 11 March 2015.



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