In a recent Joint Force Quarterly article, General Joseph Dunford stated, “allies and partners are our strategic center of gravity.” This is also true at the operational level, as our partnerships allow us to “project power when and where necessary to advance national interests.” He went on to describe how U.S. global leadership and the competitive advantage it enjoys are inextricably linked to our extensive network of partners and allies, which the Nation has leveraged since World War II. This legacy continues at U.S. Central Command (USCENTCOM) as it maintains a strong coalition of 28 nations with boots on the ground at the operational and tactical levels to bring about the military defeat of the so-called Islamic State. As one might
imagine, the need for interoperability across all warfighting functions is critical. Moreover, logistics interoperability—meaning common sustainment practices and processes—is an especially critical enabler for a strategic by-\-through (BWT) approach.

This article examines logistics interoperability as a critical but often underestimated factor of coalition warfare, which has links across joint, interagency, intergovernmental, and multinational environments. Logistics interoperability is critical to the future success of global operations responding to transregional threats, but it requires dedicated efforts in logistics security cooperation to build the foundation for a strategic BWT approach. The real question, however, is whether the United States can afford the cost of ownership of such a strategy. The ultimate answer is yes, but this requires a comprehensive review of our current process and approach to security cooperation. The foundation of this enhanced security cooperation rests on improved logistics interoperability and enhancement of our current processes and associated authorities.

RAND defines interoperability as “the ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces, and to use the services so exchanged to enable them to operate effectively together.” The North Atlantic Treaty Organization definition of interoperability is the ability of “different military organizations to conduct joint operations,” noting that common equipment is not necessarily required so long as the procedures, access, and communication are present to facilitate combined operations. British Army Major Susan Carson suggests that interoperability must be more than coordination and cooperation, stressing the necessity of interoperable communications systems. All of these definitions focus on the ability of disparate forces to operate together in a common space.

While security cooperation is a critical tool for enabling interoperability and BWT options, it usually focuses on materiel solutions sourced through the foreign military sales process, with a short sustainability case to ensure the initial operating capability. However, achieving true interoperability that maintains the U.S. competitive advantage can occur only through an enhanced understanding and analysis of partner nations’ logistics capabilities to include its systems, processes, and people. It is critical that we move beyond the traditional “sharpen the spear” applications focused on training and equipping combat systems. We must commensurately invest in developing true partner capacity with an interoperable logistics enterprise as its lifeblood to move us beyond the field level and simultaneously develop the sustainment level through a long-term view of life-cycle management.

**Why Interoperability?**

The increased emphasis on a BWT strategic approach requires the world’s militaries to become more interoperable. Success in warfare requires militaries to develop and maintain reach, endurance, and lethality; sustainment underpins all three because it directly relates to our level of investment in materiel, capability, capacity, and resiliency. Global threats require us to rise beyond the capability of any one of our national industrial bases and sustainment pipelines. This is not a USCENTCOM problem but one that requires a truly globally integrated logistics enterprise across all combatant commands, agencies, and partners. In 1966, Geoffrey Blainey popularized the phrase *tyranny of distance* to talk about how remoteness in geography can create challenges. Logistics interoperability and focused logistics security cooperation efforts can help overcome this tyranny through interoperable communications systems, common services, commodity-sharing, cooperative agreements, and aligned sustainment processes at all echelons.

Operations around the globe continue to grow more complex, but interoperability efforts to date have primarily focused on the tactical and operational levels of warfare, on maneuver instead of the twin foundations of projection and sustainment. We have shown that we can build, field, and fight with partner brigades in Iraq, Afghanistan, and Syria; however, the costs of advising, assisting, accompanying, and enabling are almost prohibitive in the early stages. A strategic BWT approach could create offshore balancers allowing the United States to husband its organic capabilities for response to high-end threats.

Experiences in Afghanistan, Iraq, and Syria continue to illustrate the long-term costs that underpin a BWT strategic approach. Partner support in contingency operations is largely sourced with short-term programmatic, single-year funding, ad hoc requirements submissions, and an ad hoc approach to balancing partner needs with U.S. needs. As a result, the Services, combat support agencies, and our other national providers are constantly engaged in tough resource decisions among competing top priorities. We consistently see this with commodities like tactical vehicles and munitions. What may not be so obvious, however, is that our current approach to supporting a BWT approach severely hampers long-term expansion of our industrial base capacity, Service reset strategies, and other Service investment objectives. Today, we have had to implement global controlled supply rates for precision-guided munitions because the consumption rate in current BWT fights has doubled the traditional U.S. expenditure rates.

It is time to elevate the conversation. There are ongoing simultaneous multiphase operations in multiple theaters. Threats manifest globally (China, Russia, North Korea, Iran, and violent extremist organizations), and many of them hover below the threshold of outright war in a gray zone that we must adapt to. Stability is essential to security, and logistics interoperability is crucial to enabling all nations to contribute to that stability. Humanitarian assistance and disaster relief efforts require us to be interoperable to better assist each other in times of need. Unfortunately, it is a rare event when even Foreign Military Sales–equipped partners have arrived mission-ready without ongoing U.S. enablers and sustainment, or any real capability in
life-cycle management for their systems. The ongoing requirements of global peacekeeping operations and borders increasingly threatened by transnational and transregional threats require us to work together to lay the foundation of this critical strategic center of gravity.

We must integrate to address these challenges, for our ability both to counter threats and to facilitate the creation of multiple dilemmas for our adversaries. In the immortal words of Benjamin Franklin at the signing of the Declaration of Independence, “We must, indeed, all hang together or, most assuredly, we shall all hang separately.” Or as Dave Cate, director of Assessments, Monitoring, and Evaluation in the Office of the Secretary of Defense, told attendees at a recent Logistics Interoperability Symposium, “we have to walk together and not just in the same direction.” Logistics interoperability will help integrate commercial industry (depending on the maturity of the partner’s industrial base) with military institutions, develop cross-ministerial relationships, mature civil-military relationships, and provide economic capacity far beyond the military sphere and tactical echelon. The good news is that we have repeatedly demonstrated our ability to work together as coalitions to address shared challenges.

Building Partner Capacity
Over the last couple of years, we have improved our ability to work by, with, and through our partners through concerted logistics interoperability improvements and efforts to build partner capacity. In the USCENTCOM area of responsibility, we have integrated partners in the provision of logistics through the reinvigoration and usage of multipartner ground lines of communications such as the Northern Distribution Network in Central Asia and the Trans-Arabian Network in the Persian Gulf. We have exercised interoperability through joint multinational exercises in Jordan and Kuwait. U.S. Africa Command stood up the Kofi Annan International Peacekeeping and Training Centre in Accra, Ghana, with many programs that will increase capability and interoperability through a shared understanding of the problems while providing the tools with which to address those problems.

U.S. Southern Command has been working diligently to communicate the importance of reciprocal agreements and has had success with several countries that had previously been reluctant to sign agreements with us. U.S. Pacific Command has been conducting partner training on how to better use agreements to achieve interoperability and conducting multiple multinational exercises such as the Rim of the Pacific and Talisman Saber exercises.

U.S. European Command has helped to establish critical prepositioned stock locations in several countries to create a common equipment set that we can...
draw from in times of need. It has also developed basing and port options that directly contribute to our efforts worldwide. U.S. Northern Command has worked hand in hand with the United Nations to provide capabilities that have directly contributed to expanding the reach of the World Food Programme through equipping and training partner forces for humanitarian assistance and disaster relief operations.

Many of our partners have fought by our side in Iraq and Afghanistan. Others are demonstrating the fruits of combined efforts by conducting humanitarian, peacekeeping, and even combat operations on their own. Efforts such as the National Defense University in Kazakhstan and the Center of Excellence for Logistics in the United Arab Emirates demonstrate our partners’ resolve to strengthening the military as a profession and a pillar of their societies. Critical tools such as defense institution-building and the vertical integrated logistics approach help develop a shared understanding of the challenges and requirements for future success. Key leader engagement is occurring every day all over the world, whether at U.S. Embassies or through the efforts of combatant and component commands. We have to take the paradigm for intelligence-sharing and apply it across the enterprise to things such as supply chains and support services, thereby building truly interoperable partnerships.

We need to understand our partners’ challenges and successes, especially where capacity developed through U.S. interoperability efforts have led to improved unilateral operations for their forces. It is not an all-or-nothing approach. We must also be cognizant of partners who offer a niche capability that they can contribute to the fight. A core requirement for the BWT approach is ownership because partner legitimacy cannot exist without ownership. U.S. ownership does not create partner legitimacy; it carries with it higher costs and does not incentivize self-sustainability. While tradition holds that military logistics is a national responsibility, a quick survey of the history of warfare finds that nearly all war is coalition-based. It is no longer realistic to expect that a single nation’s logistics enterprise can sustain a diverse multizon, simultaneously multiphased, multinational operation. Even the American system is beginning to show signs of strain with operations in the Middle East and a growing need to focus on South Asia. While we have achieved success at the tactical level through a massive outlay of enablers, we have consumed our own strategic readiness in the process. The ability of any one nation to commit to and sustain operations within and outside its borders is limited by its national resources and the strength of its logistics enterprise. In coalition operations, however, nations can pool resources and share supply chains greater and faster than any could undertake on their own. Geography is a crucial factor, but true interoperability—based on our efforts to build partner capacity—can shrink the globe.

**Enduring Challenges**

Building partner capacity (BPC) is more than just providing systems and equipment platforms. We have to pay equal attention to the human elements as well as enduring sustainment requirements. Too much of our focus has been on equipment, and not enterprise and institutions. We provide contract solutions focused on performing a function rather than building a capacity, much like sending a fisherman instead of a fishing teacher. A recent Government Accountability Office report found that barely one-quarter of America’s BPC efforts even considered logistics and sustainment, and only 1 out of 15 security cooperation officers (military officers charged with security cooperation management and execution at many U.S. Embassies) interviewed believed that their assigned country could sustain itself in unassisted operations. We need to look beyond the tactical successes of current BWT efforts. We must expand the aperture and work before, during, and after our capacity-building efforts to assemble the strategic infrastructure, systems, and processes that can sustain and consolidate the tactical gains and lead to long-term sustainability.

The lack of infrastructure maturity is another limiting factor. We need to work more on creating the kind of infrastructure that can support a globally integrated logistics enterprise. Whether it is through common procedures or equipment along transportation routes or in solutions that minimize the seams between countries and regions, we must look at the enterprise as a system that, even with disparate parts, must work together. This means focusing on the agreements and authorities that enable us to work through multiple partners simultaneously to accomplish the mission. Cyber and other shared spaces are increasingly relevant and will continue to present new threats as our enterprises become more integrated and interoperable. Flaws and weaknesses in one part of the shared networks necessary to achieve interoperability are a threat to the entire enterprise. With the rise of antiaccess/area-denial threats, truly capable partners can reduce reliance on vulnerable transportation systems for force projection and sustainment by developing alternate means of supply and sustainment.

Simply pulling blood out of the “blood and treasure” model of warfare magnifies the treasure requirement while sacrificing the infrastructure and economy of scale inherent in the U.S.-centric method. Advise, assist, and accompany efforts work at a tactical level but are facilitating a false narrative of sustainability within the partner force because it creates a logistics dependency. While we try to let partners take the lead in our current operations, we are still doing sustainment for them in the interest of speed and efficiency. We underestimate the true costs of our efforts to create speed and tactical efficiency, while ignoring the development of a truly interoperable partner.

**Vision for the Future**

The future of logistics security cooperation is a truly integrated global logistics enterprise (GLEN T) that can rapidly expand or contract depending on operational requirements, wherein each partner can contribute to and benefit from our collective strength and capability. This global logistics enterprise can be
thought of as a tree rooted in a cooperative logistics environment that builds our partners’ institutions to produce capabilities that enable operations (see figure).

**Roots.** The base of the tree—the critical roots that globally integrated logistics draws its lifeblood from—consists of four key areas that collectively establish the logistics environment that our interoperability will grow on. This is the core foundation that our efforts must be built on to avoid the continued creation of high-end combat unit that are unsustainable.

First, we have to focus on trust and information-sharing. Unless we truly integrate and synchronize our efforts, we cannot move forward. We have to be honest with each other about capabilities and limitations so that we can address our internal challenges before they consume strategic readiness. The policy is in place, but our current efforts are not as good as they should be. The first step to integration and interoperability is communication, which means we have to take responsibility for our own narrative.

Second, we have to leverage the innovative potential of industry and academia to transform our processes and break out of stovepipes. Efforts such as the Defense Innovation Unit—Experimental and SOFWERX, programs that seek to break free of traditional acquisition strategies by exploring and implementing solutions from industry and academia at the speed of technology, should be our models. We are exploring this possibility at USCENTCOM through a LOGWERX program and an upcoming symposium where we intend to communicate some of our challenges to industry and academic leaders in an effort to gather potential solutions from outside our sphere. New ways of war will require new responses to logistical challenges and innovative views on the capabilities and methods. We must integrate to the extent possible respective industrial bases in our planning as a critical contributing factor to sustainment capabilities. Maximizing the industrial base requires accurate assessment and forecasting, along with an understanding of the demand signals that drive production. A lower cost of ownership could be achieved through a new understanding of requirements and recognizing the potential for expanded capacity or materiel production.

Third, interactions are all within the limitations of our various political systems. As such, we must have a concerted effort to build a deep and lasting network of agreements from which we can conduct the exchanges necessary for true interoperability—both in terms of logistics agreements, as well as access, basing, and overflight. When time is a critical factor, we must already have these agreements, even if they are not in daily use. We need to be able to turn capabilities on and off quickly and cannot be constrained by a lack of previously agreed-on allowances. This process not only develops intergovernmental relations, but it will also improve interministerial and interagency relationships as we lay the foundation for improved communication and cooperation.

Finally, with shared operations come shared spaces. We have to transcend the lines on the map that divide our nations and work together to develop the infrastructure and border crossing, customs, and port usage necessary to operate as a truly combined force. The economic benefits to all of us from improved capabilities at ports and increased interoperability and interaction are an important consideration when convincing our partners of the value of these efforts. Historic transportation networks such as the Dwight D. Eisenhower National System of Interstate and Defense Highways and its inspiration of the Reichsautobahnen in Germany both demonstrate how defense infrastructure can have far-reaching national and global economic benefits.

**Trunk.** With the roots firmly established, we must turn our attention to the core strength of the tree. The trunk of the GLENT underpins our military’s operational and tactical prowess. While some force improvement is possible during operations, our partners come to the fight with the tools and skills developed prior to the conflict. We will need to assess the capabilities of current and potential future partners in an effort to identify areas to improve partner capacity. BPC is essential to maximizing the contributions of coalition partners but must have clearly understood starting and ending points. BPC efforts will vary with the level of partnership, for example, our five-eyes partners versus less mature government partners or even surrogate forces. Partner capacity carries with it the
seeds of further improvements as capable partners can help develop others, creating a cascade of improvements and increased interoperability.

Tools such as defense institution-building and the vertical integrated logistics approach are critical to identifying and resolving potential weaknesses in our systems, particularly when considering interoperability. When we are assessing and developing from a common framework, we cannot help but become more closely aligned. BPC includes coordination of resources with multinational partners as well as intergovernmental and nongovernmental organizations. BPC improves unity of effort within the entire joint logistics enterprise and is an essential component of joint and coalition operations; individual Services and partner nations seldom have sufficient capability to support a joint coalition force independently. BPC is an ongoing, long-term relationship development process that may not yield immediate results, but, if carried out as suggested, can quicken the training and equipping of a partner force or allow coalition partners to share the cost of ownership burden. Regardless of the potential lack of quantifiable results, there are qualitative benefits that come through investment that may not manifest for years.

Key leader engagements and subject matter expert exchanges are another tool for aligning our efforts and sharing our experiences, both successes and challenges. It is through targeted engagement that we will grow together and further strengthen the trust that our combined fates rest on. A long-term engagement strategy must be the guide rather than random visits based on proximity and other travel obligations. A global program similar to the U.S. Pacific Command’s Area Senior Officer Logistics Symposium and the USCENTCOM Gulf Cooperation Council Logistics Interoperability Symposium that builds on a series of regional symposia would go a long way toward developing global logistics expertise.

**Branches.** From this trunk rise the three primary branches that support operations through a globally integrated logistics enterprise. These are the key activities in which we must continue our engagement if we are ever to create the capabilities necessary to recognize the fruits of our efforts.

The first branch is common and interoperable equipment. Our security cooperation efforts have always been successful in this regard, but for too long the narrow focus has been combat capabilities. Even then, our model is more akin to a rental car operation where we provide partners with equipment and replace it when unserviceable, leaving sustainment and support to contracted solutions that belie the true requirements and create a dependency and an enduring weakness. We have to consider the equipment, systems, and platforms that will enable an interoperable logistics effort to sustain combined operations. Whether munitions tracking and forecasting systems or transportation and engineering equipment, the closer we can align our equipment needs and operations, the better we can integrate and operate collectively.

The second branch is the exercises necessary to develop our capabilities and create best practices from which to conduct operations. Logistics cannot be an afterthought in these exercises as it has been in the past. Our focus is not only on how we might tactically supply and sustain these exercises, but also on how logistics can become a focus of exercises without detracting from the warfighting objectives. We must work to eliminate the idea of “magic fairy dust” assumed of most logistics considerations that atrophies operator understanding of the true logistics workload associated with BWT operations. Planners must be at the table early and often to ensure that they are exercising at a realistic and stressful level so that we can test and improve our capabilities and identify challenges in training that could prove devastating if we wait until operations to discover them.

The final branch is the training necessary to develop and integrate our individual logistics enterprises. We must better leverage great programs like International Military Education and Training to train the logistics professionals on whom we will rely to support and enable operations. Mobile training teams are another powerful tool that we need to leverage for more than just operator-level training. We need a focused effort to simultaneously train the individuals who will shape and run the sustainment level of a globally integrated logistics enterprise. Their familiarity with systems and processes—combined with the shared knowledge of how we work together—is a key component of interoperability and is essential to true integration. It will clarify the true cost of ownership while building long-term capability and reducing U.S. resource requirements, thus maintaining U.S. readiness and capacity to address higher end strategic threats.

**Canopy.** The canopy of our tree—grew dense and capable through our efforts to create a sound root structure, solid trunk, and strong branches that it can rest on—represents our combined operational capacity. The fruits that this operational capacity can sustain include combat operations, humanitarian assistance/disaster relief, peacekeeping operations, border security, counter-terrorism/countering violent extremist organizations, and any other operational requirement. Because we are integrated and interoperable, we can seamlessly execute these operations while minimizing domestic costs and risks to our operations. We can, as General Dunford stated, “rapidly and flexibly project power across the globe, effectively cheating time and space.”

Modern operations are a coalition effort. We must continue to leverage our combined capabilities to streamline our services and support while eliminating overlaps that result in waste. We must pay particular attention to the seams between our operations to ensure that no critical capability goes unaddressed. These investments are twofold. They both improve our capabilities and reduce the risk to future operations. Our efforts to establish a collaborative interoperable logistics partnership will pay dividends far into the future where we become more than the sum of our parts.

**Challenges**

Much as a tree does not grow overnight, developing a GLENT that creates
and enables global operational capacity will require concerted effort, attention, and resources to include time. There will be technical, organizational, and political challenges to grow a fully capable integrated GLENT. Our differing practices, lack of interoperability, and political environments are challenges. While we may have little say on the political wrangling between nations, we can surely work toward improving interoperability and standardizing practices. We must build partner capacity by leveraging a whole-of-government approach that lays the foundation and reduces the cost of ownership to a sustainable level, whereby any future need is addressable with a solution that is ready to start and drive.

Not all the steps from here to there are under our control, but we must develop a common understanding of objectives. We must make the case to political leaders for the necessary authorities and resources to develop the critical infrastructure to future multinational operations. We have to present a clear and compelling narrative to national leaders and ministries of the risk posed by continuing to fight in stovepipes without doing the hard work to integrate capabilities, sacrificing future strategic readiness for today’s tactical success. We need a global security cooperation strategy and manager to execute a deliberate security cooperation process—a global integrator to use the language in the new National Defense Strategy.

This process cannot be undertaken blindly. We must establish the signposts along the road that will get us to this vision. We must identify quantifiable activities that we can undertake as we work toward interoperability. We should establish azimuth checks along the way to ensure we are on the right path, whether they be virtual or in regionally focused symposia. These opportunities will allow us to assess our progress and refocus if necessary on the way ahead.

A truly integrated and interoperable global logistics enterprise will provide enhanced readiness across physical and political boundaries, allowing us to modernize enterprises and balance requirements for external contracted support. We must move forward, especially at the strategic level, to begin building the framework on which our interoperability and future success depend. We must also consider the capabilities of our partners and the maturity of our relationships. Interoperability efforts with mature partners may be less appropriate for those with whom we operate on a bilateral agreement or contingency basis.

Conclusion

While we have made progress, we have further to go. We will take that road together and all be stronger and better off for having made the journey. It is important that we look for and implement the best advice, but we must consider how to best apply lessons learned to this unique enterprise. Blindly trying to modify our actions without a clear understanding of the goal and frequent azimuth checks is a clear path to frustration. There is a story that illustrates the dangers of blindly striking out without a clear understanding of our goals:

Ole and Sven are out hunting in Minnesota and they shoot a deer. They begin dragging the deer back to the truck by the tail, but they keep slipping and losing both their grip and their balance.

A farmer comes along and asks them, “What are you boys doing?” They reply, “We’re dragging the deer back to the truck.” The farmer tells them, “You are not supposed to drag a deer by the tail. You’re supposed to drag it by the antlers.” Ole and Sven begin pulling the deer by the antlers. After about 5 minutes, they are making rapid progress. Ole says to Sven, “Sven, that farmer was right. It goes a lot easier by the antlers.” Sven replies, “Yeah, but we’re getting farther and farther from the truck.”

Our challenge is clear. We have to take this global logistics enterprise by the antlers and take it in the direction we know it needs to go, together. Future joint and coalition operations require us to set the globe now through concerted logistics security cooperation efforts targeted at developing true logistics interoperability among all partners. Logistics interoperability developed through concerted efforts to build partner capacity through logistics security cooperation can supercharge BWT outcomes so long as it is rooted in partner ownership to create legitimacy. A strategic BWT approach based on building partner sustainment capacity and interoperability as opposed to our current tactical and operational BWT approach will establish the solid foundation that will allow us to recognize savings in the costs of ownership. By establishing concrete steps for the journey ahead and clearheaded assessments of the needs and outcomes of our efforts, the marriage of logistics and security cooperation will provide benefits for years to come.

Notes

2 Ibid.
6 Geoffrey Blainey, The Tyranny of Distance: How Distance Shaped Australia’s History (Melbourne, Australia: Macmillan, 1982).
7 Quoted in Jared Sparks, The Works of Benjamin Franklin (Boston: Hilliard, Gray, and Co., 1840).
10 Dunford.