The Global Landpower Network

Recommendations for Strengthening Army Engagement

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Preface

The U.S. Army has introduced the global landpower network (GLN) concept as a means to integrate, sustain, and advance the considerable ongoing efforts in the Army to meet U.S. national security guidance emphasizing the importance of working closely with partner countries to achieve U.S. strategic objectives. The Army asked the RAND Arroyo Center to develop the GLN concept further, focusing on three key elements: identifying the benefits of the GLN, defining the essential components of the GLN, and developing options for implementing the GLN.

The study results will assist the Army in developing the GLN concept, facilitate a discussion within the Army on the value and prioritization of partner engagement, and identify options for implementing the GLN. It will help the U.S. Department of Defense evaluate national security guidance in line with service competencies for partner engagement. It should be of interest to those involved with crafting partner engagement policy and those charged with supporting these policies.

This report documents the results of the "Designing and Implementing the Global Landpower Network Concept" study. This research was sponsored by the U.S. Army Training and Doctrine Command Army Capabilities Integration Center and conducted within the RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center sponsored by the United States Army.

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Summary

U.S. national security guidance, as well the U.S. Army's operational experiences since 2001, emphasizes the importance of working closely with partner countries to achieve U.S. strategic objectives. Working with partners increases the U.S. Army's ability to address current and future global challenges. The Global Landpower Network (GLN) is the Army's network of partners, connected by their common interest to further collective security objectives. The Army has introduced the GLN concept as a means to integrate, sustain, and advance the Army's considerable ongoing efforts to engage with partner countries to achieve U.S. strategic objectives—that is, to harness the GLN to better enable the Army to work multinationally to accomplish Army missions. By developing the GLN concept, the Army has the opportunity to transition the GLN from an often ad hoc and reactive set of relationships to one that the Army more self-consciously prioritizes and leverages as a resource to meet U.S. strategic objectives.

Our objective in this study was to develop the GLN concept beyond the broad-stroke structure outlined in Army senior leaders' statements. For the GLN concept to be useful for the Army, more detail is necessary in three particular areas. First, what benefits can the GLN provide the Army? Answering this question is an important first step to facilitate discussion throughout the Army on the GLN concept and the extent to which the GLN should be strengthened, sustained, and prioritized going forward. Second, what are the essential components of the GLN? The Army will need to understand what a well-functioning GLN looks like, in terms of its node and edge structure, how that structure facilitates outcomes, and how it can be employed to support actual operations. Third, what options exist for implementing the GLN concept? The Army will need to understand what steps are necessary to implement the GLN concept, both to evaluate whether the benefits of a guiding concept for the Army's engagement with partner countries outweigh the challenges that exist to incorporating this concept into Army processes and to undertake the steps required to institutionalize the GLN concept. To address these questions, this study examined what the GLN is now and can be in the future, what benefits the GLN provides for the Army and its partners, and the implications of the GLN concept for Army processes and the means by which the Army can build and sustain the GLN.

What Is the Global Landpower Network?

The Army's GLN concept is built on a foundation of previous and ongoing networks, such as the Global SOF [Special Operations Forces] Network, as well as a growing understanding of how networks are built and used for different purposes. In March 2014, then–Chief of Staff of the Army GEN Raymond T. Odierno introduced the GLN as "a multinational network that would be established around the world that enables us to respond" to contingencies and develop a "multinational joint capability" (McLeary, 2014).

In our examination of how the GLN concept aligns with current strategic and Army guidance, we found that the GLN concept is embedded in, informed by, and provides support for U.S. national security strategy as articulated in national and Army strategy documents. As such, a fully developed GLN can be instrumental in achieving the security objectives identified in national and Army strategy documents and might position the Army better to carry out its missions.

Further defining and developing the GLN concept will ensure that it can be used to greatest benefit by moving the military away from an extemporary accumulation of ties to a more deliberate warfighting capability with an understanding of its application to operations. The GLN concept can enable the Army to prioritize and leverage its relationships to accomplish its objectives more effectively. This is the critical dimension and value that the GLN concept adds. Substantively, the GLN is not anything new in terms of relationships. The GLN concept is about a clear understanding of the web of ties and relationships that the network represents and the deliberate fostering of these ties to advance U.S. security interests. As such, the GLN concept is evolutionary rather than revolutionary. It is that understanding that could lead to more-effective focusing of the Army's efforts in its engagement activities and partnerships. The institutionalization of the GLN concept will span the operating and generating forces, pulling training, intelligence, operations, policy, and other offices together under a general rubric.

We worked with Army and U.S. Department of Defense stakeholders to develop the following definition for the GLN:

> The GLN is the existing and evolving network of partners, connected by a dynamic set of relationships formed through formal agreements, informal interactions, and shared infrastructure, with a common interest in developing and delivering landpower-based options to further collective security objectives.

Let us parse this definition:

- *The existing and evolving network of partners* highlights the persistent and evolving nature of Army relationships with partners and the cooperative aspect of the partnerships underpinning the GLN. This also assumes a broader potential set of states that might not have formal treaty obligations with the United States.

- *Connected by a dynamic set of relationships* emphasizes the important role that interactions between partners play in creating and sustaining networks and the reality that relationships between partners will ebb and flow depending on their shared interests.
- *Formed through formal agreements, informal interactions, and shared infrastructure* broadly encompasses the types of relationships composing the GLN.
- *With a common interest in developing and delivering landpower-based options* delimits the scope of the GLN. Although landpower has a broad coverage, it is primarily land-focused and just one part of a much larger security and political construct.
- *To further collective security objectives* identifies the GLN's objective. Because not all security objectives will be equally important to all partners, the GLN can serve as a "network of networks," facilitating the dynamic formation of objective or regionally specific partnerships.

The GLN concept has evolved as a response to the Army's need to meet U.S. national security objectives in a complex, globally and regionally integrated world that requires the Army to work closely with partners to identify and address the security challenges that the United States faces. According to our many interactions with Army personnel, the GLN concept is intuitive to most senior Army leaders. But translating that general and amorphous notion into a full-blown strategy for how the Army works with partners will take time and will require developing doctrine that specifies how the GLN can be leveraged to support actual operations. Understanding the full value that the GLN provides and collecting and interpreting the right kinds of data to credibly assess it cannot be done all at once. However, the Army can begin to build a foundation on which future investments in time and money can be made. To assist the Army in identifying how the GLN can support Army objectives, we identified eight value propositions for a mature GLN, captured as hypotheses for further exploration. These propositions reflect Army leadership's perceptions about the value of the GLN and provide a start for further clarification and elaboration of the GLN's value proposition:

- *transitioning relationships:* Relationships in the GLN can begin as small and minor, but their existence can help transition relationships to longer, enduring, and fruitful partnerships.
- *knowing your partners:* Relationships built through the GLN can help generate knowledge of network partners—including their problems, capabilities, and biases—which will eventually be used to help build other relationships among partners.
- *getting ahead of future problems:* Relationships built through the GLN can help address future problems early before they expand from local to regional to become global challenges.

- *operating through partners to facilitate local solutions to global problems:* Building the capacity and capability of U.S. partners through the GLN can help facilitate local solutions to global problems.
- *gaining access to and knowledge of areas and lands:* Relationships developed through the GLN can increase operational access to and knowledge of areas and lands, which can speed future access.
- *creating interoperability for robust coalition operations:* Building and maintaining a breadth and depth of relationships among partners through the GLN can help build interoperability for more-robust coalition operations.
- *increasing capacity and capabilities:* Building relationships through the GLN, by allowing partners to be involved in planning and operations, can increase capacity and capabilities in key areas.
- *conveying strategic intent:* Activities that form the basis for the relationships in the GLN (e.g., education, training, and operations) enable the United States to clearly and flexibly show U.S. strategic intent and availability to escalate as necessary.

In a companion report (Mendelsohn et al., 2016), we examined more than 9,000 Army security cooperation activities to understand the baseline for the Army's current engagements with partner countries. Our analysis of the Army's recent engagement activities identified two important points. First, the Army is already actively involved in developing strong partnerships, building partner capacity, and preparing for future challenges. Second, the objectives of recent Army engagement activities align well with the values we ascribed to the GLN. Taken together, these suggest that current engagement activities can provide a good foundation to the GLN.

Benefits and Challenges to Strengthening the Global Landpower Network

As the operational headquarters overseeing most of the Army's overseas engagements with partner countries, the Army service component commands (ASCCs) are one of the most important sets of Army organizations working in the GLN. Given the important role that ASCCs play, identifying the challenges they face executing Army engagement activities is important when considering how to implement the GLN as an organizing concept for Army engagement with partners. To identify the role that the ASCCs play and to understand how regional context affects the opportunities and challenges that each ASCC faces, we visited all six ASCCs. We found that, although the regional context for each ASCC created regionally specific considerations, most of the opportunities and challenges for strengthening partner engagement in general and the GLN in particular that personnel at each ASCC identified were similar.

ASCC personnel identified five opportunities for strengthening engagement:

- Strong, persistent relationships with partners facilitate access and increase potential opportunities to work with and through these partners in the future.
- Partner engagement can improve Army readiness—but, to do so, engagement activities need to be matched to the right personnel and units.
- Multilateral activities can strengthen regional partnerships, but they are complements to rather than substitutes for bilateral engagement.
- A multilateral approach to engagement can enable greater engagement benefits than other approaches, but it requires a shift in mind-set.
- Interpersonal relationships can jump-start institutional relationships.

ASCC personnel also identified five challenges to strengthening engagement:

- Working well with partners depends on having the right people, with the right skills, in the right place, at the right time.
- Funding uncertainty can undermine partners' trust.
- Lack of accessible data on partner countries makes relationship-building more difficult.
- Assessing whether engagements are successful is difficult.
- An operational headquarters structure poses challenges for conducting engagement activities.

Options for Addressing Personnel Challenges to Strengthening Partner Engagement

Of these challenges, having the right people, with the right skills, in the right place, at the right time was seen by ASCC personnel as most important, and this mirrors the Army's focus on talent management. To identify how the Army can address this challenge, we explored the question, "How can the Army personnel selection, assignment, and training systems and processes better support GLN-related activities—primarily engagement?" We developed a series of options the Army can undertake to address personnel challenges. Each of these options would require trade-offs to varying degrees based on an assessment of priorities. The extent to which the Army should undertake any of these options will depend on how it chooses to prioritize partner engagement vis-à-vis the Army's other responsibilities:

- options for changes to personnel and training systems
  - Increase the number of foreign-area officers and strategists throughout the Army.
  - Create regionally knowledgeable specialists.

  - Create a cadre of foreign-area warrant officers.
  - Provide more predeployment regional training.
  - Create engagement units with more-senior personnel.
  - Provide more training on how to train others.
- options for changes to personnel selection
  - Track regional skills and experience.
  - Implement an information system to help better match talent supply and demand.
- options for developing strong, persistent relationships with partners
  - Increase engagement activities.
  - Revisit overseas civilian policies to reduce turnover.
  - Increase habitual alignment of personnel and units.
  - Create an analogue to the State Partnership Program for active and reserve units.
  - Consider reducing foreign contact reporting requirements.

The GLN in large part stems from and relies on the cadre of Army civilians and soldiers engaging with foreign partners. And, given the broad mandate of the GLN concept to create tactical through strategic effects, that cadre will likely develop further over time. This will mean creating more capacity for engaging—more soldiers and civilians with regional and cultural knowledge, able to focus on particular regions for longer durations—as an important part of how the Army can strengthen the GLN. And if the Army does so, this will also entail modifying certain personnel systems to better manage that expertise while balancing it against core warfighting needs. The cultural changes that attend such personnel changes are not inconsequential, and deliberate action by senior leaders will be necessary to make them happen.

Developing Network-Centric Planning

Key to the GLN concept is the idea of working within a network of partners. However, in a parallel study examining options for implementing the GLN concept, the Army Chief of Staff 's Strategic Studies Group identified the lack of network-centric planning as a constraint on maturing the GLN concept. To address this concern, we developed a preliminary network planning framework to assist the Army in developing a network approach to planning. This framework consists of three tools to help planners begin to develop a network-centric planning approach. First, we identified network archetypes to match to the GLN's value propositions. Second, we developed a set of questions that planners can use to incorporate network-specific considerations in their planning processes. Finally, we developed a prototype design for a network-centric dashboard to illustrate how viewing a partner within its global and regional

networks can identify potential opportunities that country-centric data analyses can miss. As the Army further institutionalizes the GLN, it can assess how beneficial it will be to the Army to invest in the training and data collection necessary to implement these tools. We believe that the U.S. Military Academy Network Science Center, in conjunction with the Army component command, control, communications, and computer systems directorate (G-6), can be a valuable partner for further refining and implementing this framework for potential integration with the Army enterprise data management system.

Recommendations for Developing the Global Landpower Network

The GLN concept provides the Army with a framework to develop a more sophisticated and nuanced view of Army relationships with external actors and to use its limited resources more effectively to accomplish U.S. goals.

Implementing the concept of GLN is a long-term undertaking, and moving forward means pursuing a wide range of initiatives. Some of the recommendations pertaining to near-term institutionalization of the GLN are designed to set the stage for further progress down the road. Others are in the realm of improvement of current processes or are designed to raise the status of engagement within the Army. Other than some essential early steps, such as determining a champion for the GLN, the recommendations can be pursued simultaneously, leading to periodic recalibration. In the near term, the Army can do the following:

- Determine a champion for the GLN concept.
- Test and codify the value propositions of the GLN.
- Discuss the importance of engagement and demonstrate commitment to the GLN.
- Determine roles and responsibilities for the GLN concept.
- Integrate GLN into Army strategy, vision, and doctrine.
- Improve data collection and data access on engagement activities.
- Improve assessment of engagement activities.

The GLN concept implies expanding how the Army thinks about and engages foreign partners. Once some of the institutional roles and responsibilities are decided and a general mandate exists to move forward, there will need to be a push to rectify some of the existing shortcomings in engagement-like activities to strengthen the GLN further. The following steps will support long-term strengthening of the GLN:

- Develop a stronger culture of engagement.
- Realign and expand structures and programs to support the GLN.
- Expand the meaning of the engagement warfighting function.

- Expand and cultivate the pool of engagement personnel.
- Incentivize personnel to undertake partner engagement in line with the value of partner engagement for the Army.
- Develop and integrate network-centric planning procedures and visualization tools.

Conclusion

The GLN is a broad concept for recasting engagement to be more encompassing across the Army, involving not only the typical professionals, such as foreign-area officers and strategists, but also individual soldiers and their engagements with other countries' personnel. This network approach to relationship-building assumes that the Army (or any organization) could manage or at least understand and plan complex relationships for tactical and operational gains. The GLN concept can provide direct support for meeting some of the Army's warfighting challenges, such as developing situational awareness in complex environments; providing security force assistance; ensuring access to critical communication and information links; integrating joint, interorganizational, and multinational partner capabilities and campaigns; and setting the theater.

Overall, the GLN, although it is consistent with senior-level intent, faces significant operational and institutional challenges that will impede its realization. Implementing the GLN concept assumes that the Army can overcome the perceived lack of support for engagement and allow it to flourish as a warfighting capability. Building relationships is still perceived as taking valuable time away from conventional warfighting, which is currently striving to overcome its own gaps. Broadly speaking, a cultural change is needed in the Army, one that values the development and nurturing of networks and relationships. Although some parts of the Army strongly value engagement, as was evident in our discussions at the ASCCs, a culture of engagement does not exist throughout all of the Army. That change will require explicit senior-leader support for the GLN concept and engagement in general and will further change as Army personnel involved in engaging partners sense that the Army's system values them and their skills appropriately. The GLN concept will not occur through the ambient atmosphere of relationship-building alone.

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Abbreviations

ACC	Army Capstone Concept
ALFS	African Land Forces Summit
AOC	Army Operating Concept
ARCIC	Army Capabilities Integration Center
ARNORTH	U.S. Army North
ARSOUTH	U.S. Army South
ASCC	Army service component command
AWFC	Army Warfighting Challenge
CCMD	combatant command
CGSC	U.S. Army Command and General Staff College
DAO	defense attaché office
DATT	defense attaché
DCS	deputy chief of staff
DISAM	Defense Institute of Security Assistance Management
DoD	Department of Defense
FAO	foreign-area officer
FY	fiscal year
G-3/5/7	Office of the Army Deputy Chief of Staff for Operations and Plans
GCC	geographic combatant commander
GLN	global landpower network

GMN	global maritime network
GSN	Global SOF [Special Operations Forces] Network
G-TSCMIS	Global Theater Security Cooperation Management Information System
HQ	headquarters
HQDA	Headquarters, Department of the Army
IDA	Institute for Defense Analyses
ILE	intermediate-level education
JCS	Joint Chiefs of Staff
JP	joint publication
LREC	language, regional expertise, and culture
MPEP	U.S. Army Military Personnel Exchange Program
NATO	North Atlantic Treaty Organization
NCO	noncommissioned officer
NMS	National Military Strategy
NSS	National Security Strategy
OEMA	Office of Economic and Manpower Analysis
OIF	Operation Iraqi Freedom
PDSI	personnel development skill identifier
PME	professional military education
QDR	Quadrennial Defense Review
RAF	regionally aligned force
SAMS	School of Advanced Military Studies
SC	security cooperation
SCO	security cooperation office
SOF	special operations forces
SON	U.S. Army Schools of Other Nations
SPP	State Partnership Program

SRCA	service retained, combatant command aligned
SSG	Strategic Studies Group
TAP	(the) Army Plan
TEP	theater engagement plan
TRADOC	U.S. Army Training and Doctrine Command
UK	United Kingdom
USARAF	U.S. Army Africa
USARCENT	U.S. Army Central
USAREUR	U.S. Army Europe
USARPAC	U.S. Army Pacific
USAWC	U.S. Army War College
USMA	U.S. Military Academy

CHAPTER ONE

Introduction

Background

U.S. national security guidance, as well the U.S. Army's operational experiences since 2001, emphasizes the importance of working closely with partner countries to achieve U.S. strategic objectives. In 2014, President Barack Obama highlighted the importance of being able to mobilize allies and partners to take collective action during international crises and observed, "we have to work with others because collective action in these circumstances is more likely to succeed, more likely to be sustained, less likely to lead to costly mistakes" (White House, 2014). Recent Army operations have emphasized that success on the battlefield is only part of the necessary equation for securing national objectives in a complex world. To secure larger strategic objectives, the Army must also operate in the human domain. The Army cannot invest in the requisite linguistic and cultural capabilities required for it to achieve national objectives in the full range of global contingencies on its own. Regional and local actors will always understand local dynamics better than any foreign force can.

The Army's nascent global landpower network (GLN) concept is built on a foundation of previous and ongoing networks, such as the Global SOF [Special Operations Forces] Network (GSN), as well as a growing understanding of how networks are built and used for different purposes. These experiences highlight the benefits that a network approach could have for the Army as its partner relationships grow and evolve. In March 2014, then–Chief of Staff of the Army GEN Raymond T. Odierno introduced the GLN as "a multinational network that would be established around the world that enables us to respond" to contingencies and as a "multinational joint capability" (McLeary, 2014). The concept builds on the ideas advanced by LTG Charles T. Cleveland and LTC Stuart L. Farris, who called for developing a GLN that would

> consist of allies, expeditionary global and regional partners, and host-nation forces. It could ultimately include non-military "forces" and even friendly non-state actors that have a direct relationship to success in wars among the people. . . . The network can be bound together by the common interests of peace, regional stability

> and global prosperity—very useful in shaping, deterring and winning. (Cleveland and Farris, 2013, p. 22)

We define the GLN concept as the Army's network of partners, connected by their common interest in furthering collective security objectives. The GLN concept strengthens the Army's ability to meet U.S. national security objectives in a complex, globally and regionally integrated world. The Army's recent operations have highlighted the needs to more fully address the relationships the Army has with its partners. The Army worked within a diverse and broad coalition in Iraq and Afghanistan, at times operating very closely toward common ends. The relationships changed and adapted over time and were challenged by the changing environment and diversity of partners. The Army's future operating environments will also require the Army to work closely with partners. The partnerships the Army develops through the GLN enable the Army to gain insights on the ground, increase capabilities organically and through partners, and leverage multinational networks, ranging from the logistical (e.g., using partner supply chains) to the strategic (e.g., building multinational coalitions).

As we discuss throughout this report, the GLN currently exists but has yet to be fully developed and exploited. As such, the GLN concept is evolutionary rather than revolutionary. The relationships at the heart of the GLN can be tenuous, fleeting, and oftentimes difficult to manage or sustain. By developing the GLN concept, the Army has the opportunity to transition the GLN from an often ad hoc and reactive set of relationships to one that the Army more self-consciously prioritizes and leverages as a resource to meet U.S. strategic objectives.

Objectives and Approach

The GLN concept represents a means to integrate, sustain, and advance the considerable ongoing efforts in the U.S. Army to meet the top-level mandate for engaging more partners in more ways to meet national goals. Our objective in this study was to develop the GLN concept beyond the broad-stroke structure outlined in Army senior leaders' statements. For the Army to leverage the GLN concept more effectively, more detail was necessary in three particular areas. First, what benefits can the GLN provide the Army? Answering this question is an important first step to facilitate discussion throughout the Army on the GLN and the extent to which the GLN should be built, sustained, and prioritized going forward. Second, what are the essential components of the GLN? The Army will need to understand what a well-functioning GLN looks like, in terms of its node and edge structure, how that structure facilitates outcomes, and how it can be employed to support actual operations. Third, what options exist for implementing the GLN concept? The Army will need to understand what steps are necessary to implement the GLN concept, both to evaluate whether its benefits out-

weigh the challenges that exist to building and sustaining the network and to undertake the steps required to institutionalize the GLN concept.

How This Report Is Organized

To address these questions, this study examined what the GLN is now and can be in the future; what benefits the GLN provides for the Army and its partners; and the implications of the GLN for Army processes and the means by which the Army can build and sustain the GLN.

In Chapter Two, we define *GLN* and identify eight value propositions for a mature GLN. Our definition and value propositions stem from an analysis of historical precedents, senior-leader statements, and broader literature on the value of networks. We also present results from a quantitative analysis of more than 9,000 Army security cooperation (SC) activities to identify the current baseline for the Army's current engagements with partner countries. The full analysis is presented in a companion report (Mendelsohn et al., 2016).

In Chapter Three, we present three tools designed to help planners begin to develop a network approach. First, we identified network archetypes to match to the GLN's value propositions. Second, we developed a set of questions that planners can use to incorporate network-specific considerations in their planning processes. Finally, we generated a prototype design for a network-centric dashboard to illustrate how viewing a partner within its global and regional networks can identify potential opportunities that country-centric data analyses can miss.

As an Army concept, the GLN concept focuses on the Army's role in developing and sustaining its global partnerships. However, the Army's GLN is one part of the U.S. government's broader engagement in global networks. In Chapter Four, we examine how the GLN concept aligns with current strategic and Army guidance. We find that the GLN concept is embedded in, informed by, and provides support for U.S. national security strategy as articulated in national and Army strategy documents. As such, a fully developed GLN can be instrumental in achieving the security objectives identified in national and Army strategy documents and might position the Army better to carry out its missions.

In Chapter Five, we identify key nodes that define the GLN and the skills and personnel underpinning those nodes and describe the institutional organizations that would be responsible for developing and maintaining the GLN, along with some of the key programs underpinning future GLN activities. We find that, because the GLN concept connects so closely with many of the Army's core operational competencies, the institutionalization of the GLN could be felt across the entire Army. This suggests that several Army institutions, organizations, programs, and personnel, many of whom have been involved with engagement, are necessary to the development of the GLN.

As the operational headquarters (HQ) overseeing most of the Army's overseas engagements with partner countries, the Army service component commands (ASCCs) are one of the most important sets of nodes in the GLN. Given the important role that ASCCs play, identifying the challenges they face executing Army engagement is important when considering how to implement the GLN as an organizing concept for Army engagement. To identify the role that the ASCCs play in Army engagement and understand how regional context affects the opportunities and challenges that each ASCC faces, we visited all six ASCCs. In Chapter Six, we present ASCCs' views on implementing the GLN.

One of the key challenges that ASCC personnel identified for implementing the GLN concept was having the right people, with the right skills, in the right place, at the right time. In Chapter Seven, we address the question, "How can the Army personnel selection, assignment, and training systems and processes better support GLN-related activities—primarily engagement?" and present options to address the personnel challenges that ASCC personnel raised.

Key to the GLN concept is the idea of work within a network of partners. However, in a parallel study examining options for implementing the GLN concept, the Army Chief of Staff's Strategic Studies Group (SSG) identified the lack of a network approach to engagement planning as a constraint on maturing the GLN concept.

Chapter Eight presents our conclusions and recommendations for implementing the GLN concept.

CHAPTER TWO

Definition and Value Proposition for a Global Landpower Network

The concept of a GLN emerged in 2014. In July 2015, Vice Chief of Staff of the Army GEN Daniel B. Allyn described the value of a network that ties together U.S. Army, Marine Corps, and SOF with allies and partners (see Leipold, 2015). To better understand how the GLN can strengthen the United States and its partners in future operations, we address the following questions in this chapter: What should this network look like? What might it provide—that is, what potential value propositions underlie it? And how should senior Army leaders think about it and move forward with building, sustaining, and actually using it?

What Are the Origins of the Global Landpower Network Concept?

Although the GLN concept is still being developed, its general characteristics stem from then–Chief of Staff of the Army General Odierno's remarks in March 2014 and subsequent white paper about a global strategic landpower network: "a multinational network that would be established around the world that enables us to respond" to contingencies, and provide a "multinational joint capability" (U.S. Army Chief of Staff, 2014, p. 12).[1] The GLN concept also builds on the ideas advanced by General Cleveland and Colonel Farris, who called for developing a GLN that would

> consist of allies, expeditionary global and regional partners, and host-nation forces. It could ultimately include non-military "forces" and even friendly non-state actors that have a direct relationship to success in wars among the people. The network can be bound together by the common interests of peace, regional stability and global prosperity—very useful in shaping, deterring and winning. (Cleveland and Farris, 2013, p. 22)

The GLN concept has both operational and conceptual precedents. Through a series of articles, reports, and interviews in the late 2000s, GEN Stanley A. McChrystal

[1] The term *strategic* was subsequently removed, and the concept is now generally referred to as the GLN. See McLeary, 2014.

discussed how his command was integrating network thinking into U.S. operations in Afghanistan (McChrystal, 2011).[2] The accounts portrayed a force already cognizant of the value of networks in fighting networks, albeit one developed by dint of forward-thinking leadership. That thinking, in practice in the field, presaged what was later codified into new concepts to better align institutional priorities behind it. For instance, it led to the GSN—similar to the proposed GLN but oriented to SOF (Thomas and Dougherty, 2013).

The concept of the GSN was based on SOF units working intimately with state and local partners to share information and improve operational capability in a complex environment. This entailed integrating two disparate yet important network-building efforts. The first effort was to *build out the technical networks and agreements* that would allow units to share information effectively with their partners. These networks, designed for smaller and typically highly trained units, went part and parcel with general advances in high-end capabilities and enabled the integration of and interoperation with partners of all types. The second effort was to *build out a network that would bring like-minded individuals and organizations with common interests into communities able to take action*. Balancing and uniting the technical and the social aspects of this network drive the network's value proposition.[3]

The creation of another conceptual network also colors the development of the GLN. In 2005, ADM Michael Mullen, then Chief of Naval Operations, described what was, at times, known as the "global maritime network" (GMN) (Ratcliff, 2007)—a partnership among like-minded nations combining U.S. and partner military, law enforcement, coast guard, and other maritime agencies to keep the global commons safe and open (Mullen, 2006). The GMN was conceptualized as voluntary relationships among partners, buoyed by general trends in the interdependence among global economic, political, and military ties, and consistent within the international norms of open sea-lanes. Many articles and reports further developed the concept (National Research Council, 2008).

The intellectual origins underlying all of these concepts can be traced to the greater focus in social science on networks and the adaptation of these concepts in the 1990s to the national security realm by David Ronfeldt of RAND and John Arquilla of the Naval Postgraduate School and by VADM Arthur K. Cebrowski, who championed network-centric warfare while serving as the head of U.S. Department of Defense's (DoD's) Office of Force Transformation.[4] As such, the GLN has deep intellectual ori-

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[2] Also, his autobiographic accounts *My Share of the Task* (McChrystal, 2013) and *Team of Teams* (McChrystal et al., 2015) describe the thinking on how to move the Army away from historically hierarchical commands.

[3] For more information on the GSN, see Szayna and Welser, 2013, and Yoho, deBlanc-Knowles, and Borum, 2014.

[4] There are many papers and books on this subject, both for and against the network-centric concepts. For an earlier description, see Cebrowski and Garstka, 1998.

gins, with supporters and dissenters of these concepts.[5] It is also consistent with the intent of recent strategic documents, such as the National Security Strategy (NSS) (White House, 2015) and the Quadrennial Defense Review (QDR) (DoD, 2014),[6] both of which stress the importance of involving partners in future U.S. operations (more on this in subsequent chapters). However, if the GLN concept is going to survive, the details of what that GLN is—beyond its general concept; how it is a significant improvement on the Army's current informal partner engagement strategies; and how it might be further developed, sustained, and employed down the road—will need to be determined.

What Is the Global Landpower Network?

Almost every major national security policy document (such as the NSS) focuses on expanding relationships with partners and creating "networks"[7] on which the United States can rely. The rationale for using networks has benefited from increasing analytic attention across several disciplines. In the national security realm, Arquilla and Ronfeldt (Arquilla, 2014; Arquilla and Ronfeldt, 1996, p. 82), among others (see, e.g., Sageman, 2004), have written extensively on networks as a mode of organization for conflict, arguing that terrorist networks, such as al Qaeda, are structurally resistant to attacks and thrive on loosely dispersed and "leaderless" movements.[8] In an effort to capture the potential strengths of networks, military and intelligence leaders have proposed fighting terrorist networks with networks of U.S. design. These networks would strike a balance between traditional military leadership structures and disaggregated authority to exploit a network's inherent flexibility while still maintaining coherent movement toward established goals.

Networking concepts are used in many disciplines. Engineers tend to conceive of networks within the context of interconnected technical systems—a set of radios or software exchanging data—designed to support higher-level processes. In sociology,

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[5] For example, the public debate between Bruce Hoffman and Marc Sageman on the existence of leaderless jihadi movements. See Sageman and Hoffman, 2008.

[6] For example,

> Our sustained attention and engagement will be important in shaping emerging global trends, both positive and negative. Unprecedented levels of global connectedness provide common incentives for international cooperation and shared norms of behavior, and the growing capacity of some regional partners provides an opportunity for countries to play greater and even leading roles in advancing mutual security interests in their respective regions. (DoD, 2014, p. III)

[7] For the purposes of this report, we define *network* broadly as a collection of *nodes* (e.g., people, units, organizations) and *edges* (the relationships and activities between those nodes).

[8] An extensive argument has since ensued about the effectiveness of such networks, which is easily seen in the literature between academics, such as Bruce Hoffman and Marc Sageman, and others.

networks are generally conceived of as social constructs—organic human networks created and destroyed within and among communities of disparate interests.

In describing the GLN, we refer to both the social and technical aspects of a network while also capturing the partnership requirements discussed in the NSS and elsewhere. We define a network as being *an association of entities with common interests formed to provide mutual assistance, to share of useful information, and to potentially engage in common action*. Conceptually, the GLN does not represent a new international framework. Formal agreements, such as treaties, provide the impetus for landpowers to work together, as well as "top cover" for specific interactions and funding. But not all relationships are as formal as a treaty. For instance, personal interactions between two soldiers, enabled by such mechanisms as the soldier exchanges common to professional military education, can signify the start of a friendship, which can then later grow into a professional relationship. Implied relationships can grow out of a shared use of geographic locations and infrastructure (e.g., ports, airstrips, training areas, and disputed territory). And some relationships can represent participation in or use of specific systems (e.g., intelligence and information systems, personnel systems, or trade systems). These and similar kinds of relationships form the backbone of the GLN.

Defining and developing the GLN will ensure that it can be used to greatest benefit by moving the military from an unplanned accumulation of ties to a more deliberate development of partner engagement strategies. This is the critical dimension and value that the GLN adds; substantively, the GLN would not by itself create anything new in terms of relationships, but it would help develop a clear understanding of the web of ties and relationships that the network represents. It is that understanding that could lead to the Army more effectively focusing its engagement activities and partnerships. The institutionalization of the GLN concept will span the operating and generating forces and will pull elements of training, intelligence, operations, policy, and other functions together under a single rubric.

Earlier descriptions of landpower networks by General McChrystal were broad in their interpretation of what constituted landpower. It includes all manifestations of landpower, from armies to paramilitaries, to SOF, and the Marine Corps. Land forces represent the bulk of military personnel in other countries, and the heads of other militaries tend to be army generals. In keeping with these descriptions, the context of the GLN concept must be broad: Seats of power will be important, especially those in partner countries' armies, and personnel who provide or administer sea, air, space, and cyber power will be valuable.

The landpower entities in the GLN can include individual people; groups, such as military units; countries; and multinational organizations, such as the North Atlantic Treaty Organization (NATO). Common nodes are partner and allied countries (such as NATO states), individual units within another army, or senior military leaders who were educated in the United States. The U.S. Army does not interact with only other

armies; it and other landpower elements interact at all different levels of organization, both inside and outside the Army's institutional structures.

It is important to note that, although the GLN concept focuses on landpower, Army relationships built and sustained through the GLN are part of a larger network of U.S. relationships with partners. The GLN concept's focus on landpower, versus all military power or other types of national power, helps to scope the concept to something manageable and operationally relevant for the Army.

Within this context, we define the GLN as follows:[9]

> The GLN is the existing and evolving network of partners, connected by a dynamic set of relationships formed through formal agreements, informal interactions, and shared infrastructure, with a common interest in developing and delivering landpower-based options to further collective security objectives.

Let us parse this definition:

- *The existing and evolving network of partners* concerns the persistent and changing nature of Army relationships with partners and the cooperative aspect of the partnerships underpinning the GLN. This also assumes a broader potential set of states that might not have formal treaty obligations with the United States.
- *Connected by a dynamic set of relationships* emphasizes the important role that interactions between partners play in creating and sustaining networks and the reality that relationships between partners will ebb and flow depending on their shared interests.
- *Formed through formal agreements, informal interactions, and shared infrastructure* broadly encompasses the types of relationships composing the GLN.
- *With a common interest in developing and delivering landpower-based options* delimits the scope of the GLN. Although landpower has a broad coverage, it is primarily land-focused and just one part of a much larger security and political construct.
- *To further collective security objectives* identifies the GLN's objective. Because not all security objectives will be equally important to all partners, the GLN can serve as a "network of networks," facilitating the dynamic formation of objective or regionally specific partnerships.

This definition reflects the intellectual origins of the GLN, the intent of recent strategic documents, and statements about the GLN by senior Army leaders. It is also the result of a stakeholders' workshop that RAND hosted in April 2015 and subsequent discussions with personnel from HQ, Department of the Army (HQDA); U.S.

[9] This definition is similar in many ways to the definition of the GSN captured in Joint Publication (JP) 3-05: "[The GSN is] a synchronized network of people and technology (US, allies, and partner nations) designed to support commanders through inter-operable capabilities that enable special operations" (JP 3-05, p. I-1).

Army Training and Doctrine Command (TRADOC); SSG, U.S. Military Academy (USMA); U.S. Army Special Operations Command; Office of the Secretary of Defense; and U.S. Department of State. The GLN concept encompasses an understanding of what the GLN is, how the GLN can be used to achieve Army objectives, and how the Army can strengthen and sustain the GLN.

It is also important to specify what the GLN is not:

- The GLN is not a single identifiable program with an identifiable funding line in the Army budget.
- The GLN is not a formal set of mandated activities, skills, or promotion requirements that all personnel must accomplish and that can be specified within professional development documents.
- The GLN is not a single organizing concept for operating land forces.
- The GLN is not a warfighting function—although a warfighting function, such as the proposed engagement warfighting function, could be a large contributor to the GLN (we discuss this in detail in Chapter Three).
- The GLN is not a formal institution promulgated with a specific treaty or memorandum of understanding.

What Value Might the Global Landpower Network Provide?

The GLN concept has evolved as a response to the Army's need to meet U.S. national security objectives in a complex, globally and regionally integrated world that requires the Army to work closely with partners to identify and address the security challenges that the United States faces. According to our many interactions with Army personnel, the GLN concept is intuitive to most senior Army leaders. But translating that general and amorphous notion into a full-blown strategy for how the Army works with partners will undoubtedly take time and will require developing doctrine that specifies how the GLN can be leveraged to support actual operations. Understanding the full value that the GLN provides and collecting and interpreting the right kinds of data to credibly assess it cannot be done all at once. However, the Army can begin to build a foundation on which future investments in time and money can be made. To help the Army identify how the GLN can support Army objectives, we identify eight value propositions for a mature GLN, captured as hypotheses for further exploration. These propositions reflect Army leadership's perceptions about the value of the GLN and provide a start for further clarification and elaboration of the GLN's value proposition.

Transitioning Relationships

Relationships in the GLN can begin as small and minor, but their existence can *help transition relationships* to longer, enduring, and fruitful partnerships. What might start

as a simple liaison relationship between two countries, in which one sends a junior officer to the other's professional military education (PME) institution, might turn into actual officer exchanges in key positions, plans for engaging in combined training events, and building a shared concept for future collective security. The people involved in the exchanges retain knowledge and familiarity with the other army, and that knowledge stays with them as they progress in their careers in the armed forces. Those ties become the seeds of increased interaction and cooperation.

Relationships at the institutional and country levels can also transition into additional, fruitful exchanges among partners. For instance, NATO's Partnership for Peace program and a U.S. European Command program called "In the Spirit of Partnership for Peace" were initiated after the Cold War to engage former members of the Warsaw Pact (Albania et al., 1955); over time, they led to improved relationships, including new agreements on overflight, staging, and basing rights, as some of these countries later joined NATO. One result of these agreements was improved access to refueling infrastructure and the communication links needed to conduct operations during Operation Iraqi Freedom (OIF). U.S. engagement with Poland provides another example of cooperation programs proving beneficial. Poland, along with the United Kingdom and Australia, participated in OIF from the outset and greatly increased combined expeditionary capabilities as "battlespace owners" in Afghanistan. Each will likely continue to play important roles in future operations and contingencies.

The GLN can also be used to develop positive relationships with competitor nations and militaries, such as China and the People's Liberation Army, respectively. According to one observer (Pavgi, 2015), "U.S. officials view military-to-military contacts as a path to relationships and understanding that can help ward off miscalculation and war." Increasing military-to-military engagements is helping to address the lack of trust that exists between the United States and China. Those tactical relationships grow and become expressed as those soldiers get promoted and, in theory, help improve transparency and facilitate communication among senior leaders during peacetime in hopes of averting miscalculations. Those early relationships cannot avert future wars, but they are an important element in bilateral relations that can be an influential and moderating influence under crisis conditions. The senior leaders whom Pavgi interviewed would rather have those opportunities now than not.

Knowing Your Partners

Relationships built through the GLN can help generate *knowledge of network partners*—including their problems, capabilities, and biases—which will eventually be used to help build other relationships among partners. How partners deal with a problem that does not reach the threshold for U.S. involvement might clarify what kind of partner they might be in the future, thus helping with better planning and a deeper understanding of what can be reasonably expected from them in future crises.

The Army's long-term relationship-building with Kuwait is an example. The United States has maintained a near-continuous presence in Kuwait since the Persian Gulf War, rotating small, battalion-size forces into the country to conduct combined training with Kuwaiti land forces and other Cooperation Council for the Arab States of the Gulf (Gulf Cooperation Council) militaries (as seen in Operation Intrinsic Action) to improve interoperability and battle staff proficiency between U.S. and Kuwaiti armed forces and enhance U.S. military force capabilities to rapidly deploy to the region. Through those activities, along with Operations Northern and Southern Watch, the U.S. Army improved its logistics, training, military support, and command and control infrastructure in Kuwait, gained expertise in desert combat, and became more familiar with local forces, culture, and society.

Another example—relationships being built and exercised at the Joint Multinational Readiness Center in Germany—has revealed capabilities that might not have been known otherwise. U.S. units training at the Joint Multinational Readiness Center might encounter a dozen other allied countries, train for several weeks working through difficult tasks, and gain an increased appreciation for how they might work together in the future. Strengths (and weaknesses) identified through these interactions can then be better managed in future operations.

Getting Ahead of Future Problems

Relationships built through the GLN can help *address future problems early before they expand from local to regional to become global challenges*—something the NSS clearly advocates. Preemptive action could be increasingly important in the struggle against violent nonstate actors and terrorist groups because, for any number of reasons, these groups' ambitions often start out small and local and grow to become global in scope (Pernin et al., 2008).

In Africa, U.S. efforts to provide peacekeeping training to African states through the African Contingency Operations Training and Assistance program increase participation in United Nations peace support operations. Although primarily State Department civilian contractors conduct African Contingency Operations Training and Assistance, active-duty U.S. Army personnel serve as mentors and trainers to troop-contributing countries. Partners have sent peacekeeping contingents to missions in dozens of African deployments. To be clear, we note that shared political goals have led to these deployments, but the deployed African forces have been much more capable as a result of U.S. assistance and the relationships they have built with the U.S. Army. Creating this network of peacekeepers could help prevent the spread of conflict in the region by building more-capable local militaries and, thus, making it less likely that U.S. forces will be required to deploy.

Operating Through Partners to Facilitate Local Solutions to Global Problems

Building the capacity and capability of U.S. partners through the GLN can help facilitate *local solutions to global problems*. Building partnerships will allow the United States to orient its partners toward global problems of U.S. interest while helping them to develop their capacity and capability will enable them to participate in operational solutions to these problems. General Odierno's motivation (U.S. Army Chief of Staff, 2014, p. 12) to engage in counterterrorism operations through U.S. partners can be facilitated through partnerships that are built over time and exercised in support of U.S. objectives. Partnerships and burden-sharing will allow the United States to marshal and use its finite resources more economically while still allowing for unilateral action, as warranted.

Gaining Access to and Knowledge of Areas and Lands

Relationships developed through the GLN can increase operational access to and *knowledge of areas and lands*, which can speed future access. Having knowledge of access points, logistical constraints, suppliers and contractors, and other factors can help facilitate operations and avoid problems, such as those that occurred in Task Force Hawk in 1999. In that operation, the original planning involved projecting Army forces into Macedonia, requiring a light footprint of about 1,700 soldiers under the protection and support of NATO troops already there. When updated plans called for the deployment of Task Force Hawk to Albania, tactical commanders had limited time to prepare and faced congressional legislation[10] that did not allow tactical planning for operations in Albania. The lack of knowledge of Albania, including its infrastructure, required the United States to change its force size and increased its risk significantly.

Conversely, many positive examples reveal how the development and exploitation of relationships have provided area-specific knowledge that enabled future success. In Operation Damayan (the humanitarian assistance operation in the Philippines following Typhoon Haiyan in 2013) (Parker et al., 2015), the 3rd Marine Expeditionary Brigade forward command element provided initial intelligence support within hours of the Philippines' request for U.S. assistance. Forward-positioning and the rigorous training exercise and employment plan enabled this fast response. Training exercises occurring prior to this operation included several humanitarian assistance and disaster relief scenarios. Among other benefits, these exercises helped U.S. forces identify runways and other infrastructure that could be used for logistical support, the flow of troops, and other activities.

[10] The Roberts Amendment was attached to the fiscal year (FY) 1999 Department of Defense Appropriations Act (Pub. L. 105-262, 1998) as Section 8115 and precluded spending on actions in certain countries, thus limiting planners from building knowledge of locations. See Nardulli et al., 2002.

Creating Interoperability for Robust Coalition Operations

Building and maintaining a breadth and depth of relationships among partners through the GLN can help build *interoperability for more-robust coalition operations*. The existence and knowledge of plausible interoperability between partners can create additional opportunities for coalition operations, which can help increase legitimacy of action when meeting U.S. objectives. A culture more focused on cooperation could foster attitudes more conducive to (appropriate) information sharing and a willingness to delegate to regional partners (see Serena et al., 2014). Although the interoperability of systems can assist coalitions, interoperability could, in turn, facilitate the creation of coalitions.

For example, although the United States and Jordan have never been linked by a formal treaty, the granting of foreign aid (by the United States) and pursuance of SC (by both countries) have contributed to improved relations and coordinated efforts on a range of issues.[11] Since the outbreak of civil war in Syria, Jordan has played increasingly important strategic and operational roles in maintaining regional stability and supporting Operation Inherent Resolve against the Islamic State of Iraq and Syria. Moreover, Jordan has provided the United States with critical access and support in a region where U.S. visibility and assets are limited. Although shared political goals are the foundation for the cooperation against the Islamic State of Iraq and Syria, Jordan's military capacity and willingness to engage in ongoing coalition operations are, in part, a result of the U.S. investment in building partner capacity and relationships.

Increasing Capacity and Capabilities

Building relationships through the GLN, by allowing partners to be involved in planning and operations, can *increase capacity and capabilities* in key areas. Partnerships developed through the GLN will allow the United States access to operational capabilities and intelligence it might have otherwise lacked. Also, when two units work side-by-side, they are usually compelled to learn how to work together. This is mutually beneficial for both or all partners during the period of cooperation and will likely increase the potential of any future associations. As of the writing of this report, the Army is working closely with Ukrainian forces in response to Russian aggression in Crimea and eastern Ukraine. The commander of Army forces in Europe, LTG Ben Hodges, has been explicit in what U.S. forces have learned from these experiences:

> We have provided them with the lightweight counter-mortar radar, and they were very, very effective in employing that. In fact, they used it in ways that we had not used it ourselves, and discovered that it made it more effective than I think we knew was possible.

[11] As Jeremy Sharp explained, Jordan is an important "buffer" between Israel, Syria, Iraq, and Saudi Arabia and has promoted Israeli–Palestinian peace, both of which serve U.S. national interests. See Sharp, 2015.

> What we have learned from them is what it is like, the amount of jamming capability from distance as well as types that the Russians have employed. (Gould, 2015)

Although the United States is not at war with Russia, through its engagement with Ukraine, its military has been able to gain the knowledge shared by a force recently in contact with a hostile European power. Furthermore, it has discovered ways of tactically employing its mortars in ways that would not have been understood absent this cooperation.

Conveying Strategic Intent

Activities that form the basis for the relationships in the GLN (e.g., education, training, and operations) enable the United States to clearly and flexibly show *U.S. strategic intent* and availability to escalate as necessary. As explained by the then–Chief of Staff of the Army General Odierno, soldiers deployed on the ground are "a transparent declaration of U.S. interests" (U.S. Army Chief of Staff, 2014, p. 5).

In the wake of Russian movements into Ukraine and eventual annexation of Crimea, the Army had companies from the 173rd Airborne Brigade increase training and exercises with the Baltic states to support specific operational goals and to convey U.S. interests in that region and support for international agreements in place. DoD uses Operation Atlantic Resolve to demonstrate "its continued commitment to collective security through a series of actions designed to reassure NATO allies and partners of America's dedication to enduring peace and stability in the region" (see DoD, undated). The Army's role in providing such options to senior defense leaders was clear and built on substantial relationships that units had established previously in the region.

Expanding the Army's relationships through operations can aid in conveying strategic intent and in deterring future war. The Army's road march from Estonia to Germany—dubbed Operation Dragoon Ride (see Tan, 2015a)—reassured allies in the region, exercised key logistical operations, aided in multinational training and interoperability, and conveyed strategic intent in response to activities in the region.

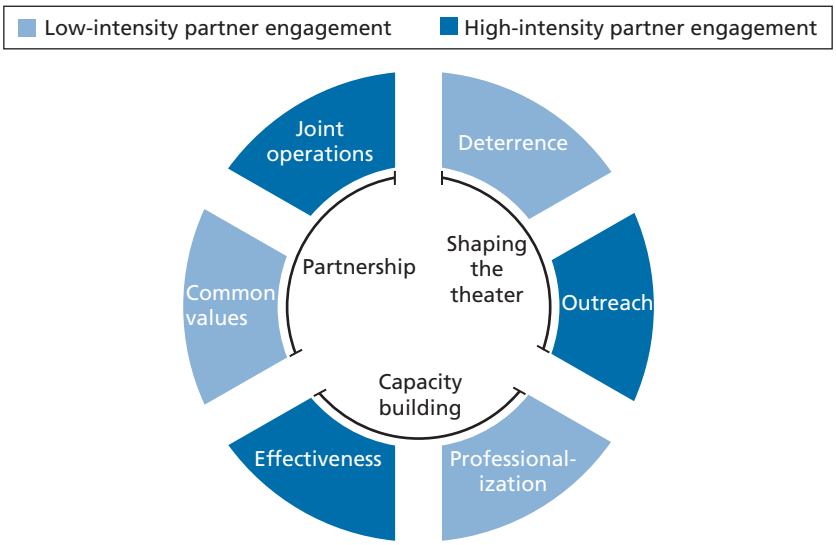
Mapping Army Security Cooperation Activities to Global Landpower Network Value Propositions

As the Army considers moving forward with strengthening and sustaining the GLN, it is important to remember that it will not start with a blank slate. The Army is actively involved with partner countries and carries out a wide range of engagement activities. Army efforts to build the GLN will rest on the foundation of current and past Army engagement activities. In a companion report, we assess recent Army engagements to develop an understanding of the GLN's baseline (Mendelsohn et al., 2016). We exam-

ined more than 9,000 Army SC activities conducted between 2009 and 2014 and recorded in the Army's Global Theater Security Cooperation Management Information System (G-TSCMIS). G-TSCMIS is the Army's data repository for SC activities. As we discuss in the companion report, although there are gaps in G-TSCMIS's activity coverage, it can provide an illustrative overview of many of the Army's activities with partner countries.[12]

Informed by our analysis, we identified three key dimensions for engagement: partnership, shaping the theater, and capacity building. Each dimension ranges from low- to high-intensity engagements. These dimensions are illustrated in Figure 2.1. The partnership dimension includes activities designed to strengthen relationships with key partners, building the political compatibility and trust necessary for the United States and its partners to work closely together to achieve mutual security goals. Partnership activities ranged from low-intensity activities focused on building institutional compatibility and consensus to high-intensity activities, such as enabling and executing joint operations with highly compatible partners. Common activities that the Army conducted with highly capable partners included research and development, interoperability training and doctrine, personnel exchanges, and information sharing. These are shown in Figure 2.2.

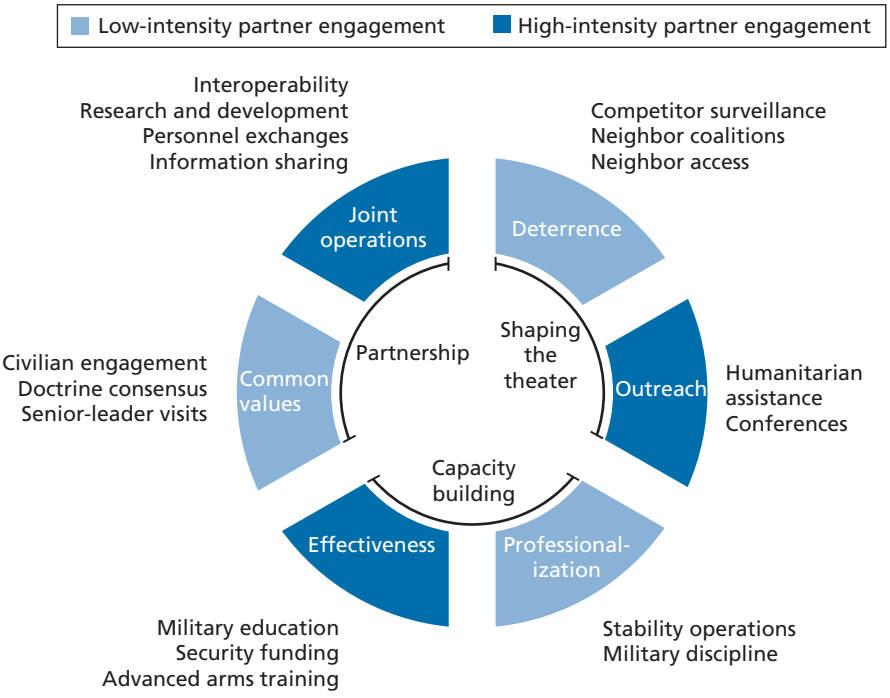
Figure 2.1
Three Dimensions of Army Engagement



RAND *RR1813-2.1*

[12] G-TSCMIS provides a lot of information about Army SC, but much of the data are not commensurable, and many of the data fields are text based. To leverage these data, we employed a big data analytic research approach and employed a latent space analysis to identify underlying dimensions in the data.

Figure 2.2
Common Engagement Activities, by Dimension



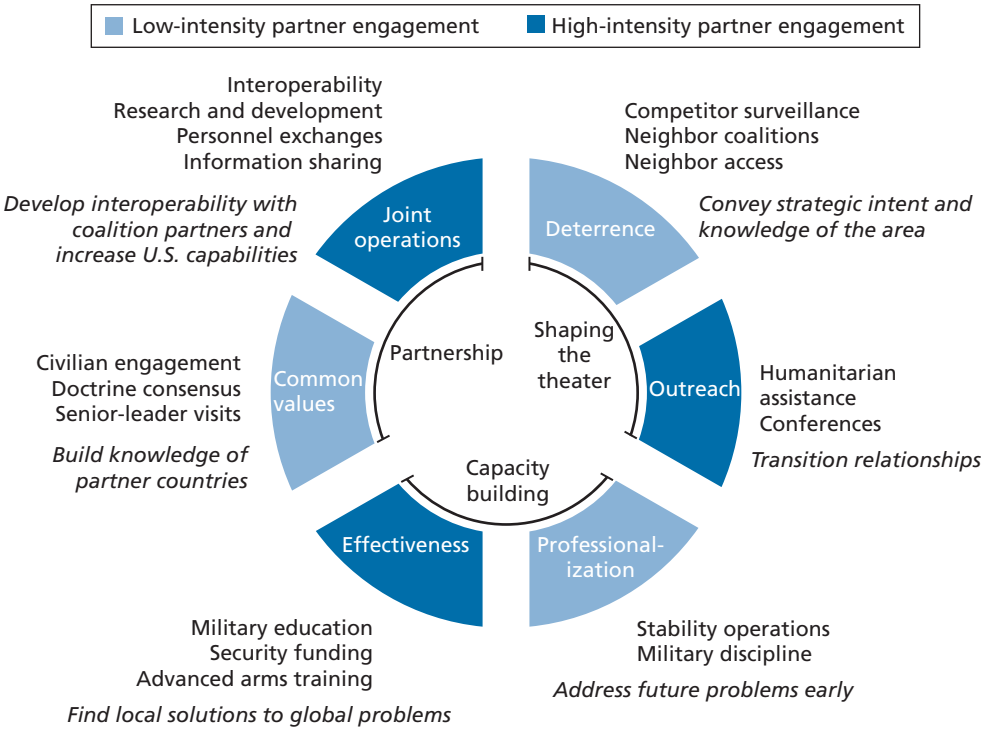
RAND *RR1813-2.2*

Shaping the theater includes activities directed at both deterring and engaging potential adversaries. For this dimension, low-engagement activities focused on deterrence, in which engagement with a potential adversary was low (which is what we captured in the analysis) but in which engagement with regional and global partners could be quite intense. Common deterrence activities focused on increasing surveillance capabilities and ensuring access. In contrast, outreach activities focused on engaging potential adversaries through activities, such as humanitarian assistance and regional conferences.

Capacity-building activities focused on building the military capacity of partner countries. The spectrum of capacity-building activities ranged from working with less militarily capable partners to improve military professionalism to working with high-capability partners to improve military effectiveness. Low-intensity activities tended to focus more narrowly on defense institution–building topics, such as professionalization, or the technical skills necessary for activities, such as stability or peacekeeping operations. High-intensity activities included materiel funding and training, often through foreign military sales, and higher-level professional military education.

Each of the six engagement focus areas presented in Figures 2.1 and 2.2 aligns with at least one of the GLN value propositions. Figure 2.3 overlays these on the results

Figure 2.3
Army Engagement Aligns with Global Landpower Network Value Propositions



reported in Figure 2.2. For example, activities with key partners to prepare for joint operations build interoperability with coalition partners and increase U.S. capabilities. Similarly, deterrence-focused activities, such as increasing regional surveillance and increasing regional access, convey strategic intent and increase the Army's knowledge of the region.

Our analysis of the Army's recent engagement activities identified two important points. First, the Army is already actively involved in developing strong partnerships, building partner capacity, and preparing for future challenges. Second, the objectives of recent Army engagement align well with the values we ascribed to the GLN. That said, as we discuss in our companion report, our analyses also identify potential missed opportunities for Army engagement. Taken together, these suggest that current engagement activities can provide a good foundation to the GLN.

Conclusion

Although the GLN concept has not been institutionalized, the GLN currently exists. The relationships at the heart of the GLN can be tenuous, fleeting, and oftentimes difficult to manage or sustain. By developing the GLN concept, the Army has the opportunity to transition the GLN from an often ad hoc and reactive set of relationships to one that the Army more deliberately prioritizes and leverages as a resource to meet U.S. strategic objectives. This chapter has outlined eight value propositions for the GLN. A key step for the Army to undertake as it considers institutionalizing the GLN is to assess the value of each of these value propositions with regard to supporting specific war and nonwarfighting operations. We recommend a few steps for doing this.

First, refine the Army's understanding of the current GLN by building the "network" view of the Army's relationships. Although the Army undertakes many activities with its partners, there is not a clear picture of the Army's relationships with and among its partners. Data available currently at ASCCs, such as those resident in G-TSCMIS, provides a foundation for developing the Army's GLN common operating picture.

Second, exercise the GLN. Because the GLN concept is relatively new, the Army will need to understand what a well-functioning GLN looks like, in terms of its node and edge structure, how that structure facilitates outcomes, and how it can be employed to support actual operations. The eight hypothesized value propositions should be considered and expanded on by deliberately evaluating them against specific combat and noncombat missions. Measures of the utility of the GLN should be based on whether it can provide outcomes most important to the Army. In addition, exercising the GLN should highlight how forces generally operate in a network fashion: It should demonstrate the value of relationships the Army builds with other landpowers and the relationships being built among other foreign landpowers. Ultimately, the sum of the relationships and interactions that the GLN represents is related to the expenditure of U.S. resources. A better understanding of the usefulness of the GLN will also advance U.S. security goals in a more resource-effective fashion.

Third, identify a champion for the GLN concept. Without a champion, the GLN concept is unlikely to gain traction within the Army. The scope of the GLN (including relationships between and among scores of individuals, units, militaries, countries, and regional blocs) is such that no individual stakeholder can fully monitor and control the entirety of the GLN. Thus, several key leaders and offices must be involved in its evolution and use. The GLN has repercussions for many of the Army's internal processes, and several Army three- and four-star offices and commands will be affected. One approach would be for the Chief of Staff of the Army to provide the four-star rank necessary to be the overall lead for the GLN. This would be in keeping with the former Chief of Staff of the Army's support for the GLN concept. However, we expect that TRADOC, with its broad, whole-of-Army focus and training and doctrine development responsibilities, will be the best command to institutionalize the GLN concept

within Army doctrine and identify opportunities to integrate the GLN concept across Army capabilities.

CHAPTER THREE

Approaching Engagement Through Networks

By developing the GLN concept, the Army has the opportunity to transition from an often ad hoc and reactive set of relationships to one that the Army more deliberately prioritizes and leverages as a resource to meet U.S. strategic objectives. We have defined the GLN as the existing and evolving *network of partners*, connected by a dynamic set of relationships forged through formal agreements, informal interactions, and shared infrastructure, with a common interest in developing and delivering landpower-based options to further collective security objectives. One key step to fully leveraging the relationships that the Army builds with partner countries is to understand how the Army's network of partners can support the United States to meet its strategic objectives.

The need for the Army to develop a "network approach" to inform Army planning was one of the main findings from the SSG's assessment of the GLN concept.[1] In particular, the SSG found that ASCC-specific network analyses of their operational environments in support of the commander's activities in the region could be beneficial for prioritizing objectives, developing effective engagement strategies, and leveraging partners' resources. As we discuss in Chapters Four and Five, as the operational HQ overseeing most of the Army's overseas engagements with partner countries, the ASCCs are one of the most important sets of nodes in the GLN. We expect ASCC planners to make the greatest use of a network approach to partner engagement. The network approach we outline in this chapter builds on the SSG's recommendation.

The application of network science to interorganizational relationships (Oliver, 1990) has already yielded great benefits for improving processes and fostering connections in a variety of fields but, as the SSG points out, has not yet been applied widely in a military context. Applying it to ASCC activities provides a way to assess and prioritize partner relationships in the context of environmental considerations, and implementing it will allow commanders to identify opportunities for collaboration based on the entire network of relationships between the United States and its partners.

[1] Personnel from the SSG participated in our GLN Stakeholders' workshop, were involved in a series of stakeholder teleconferences, and briefed our study team on their findings.

The SSG is not the only Army group to recognize the value of understanding and influencing networks. In fact, understanding and leveraging networks have become a priority for the Army. From net-centric warfare to intelligence analysis, networks are ubiquitous throughout the Army. USMA created a network science minor in 2014, considering the ability to analyze networks a "valuable intellectual and problem solving tool for future Army officers . . . and network thinking an empowering element of leadership and management" (Arney, 2014). USMA has also served as the home for the Network Science Center since 2009, providing a wealth of network expertise to the Army. Moving forward with the GLN, taking advantage of the research and capabilities available through the center will be important for providing reach-back analysis to ASCC staff as they apply a network approach to engagement. As part of our study, we met with personnel at the USMA Network Science Center and discussed with them the important role the center can play in supporting GLN if the Army implements the concept further.

To an outside observer, a network approach might not appear very different from current Army operations with partners and allies—following a network approach, the Army will continue to conduct bilateral and multilateral activities with its partners. However, the framework in which these activities are created, conducted, and evaluated is radically different. Rather than viewing the Army and its engagements with partners as a series of individual relationships (U.S. Army plus partner), Army engagements are viewed as part of a much larger *network* of relationships between and among partners. Different patterns of network connections ("structures") can facilitate different functions (such as training or intelligence sharing), which then support GLN objectives. With these structures in mind, planners can shape engagement activities to leverage existing relationships (and possibly create new ones) in service of GLN objectives. Not using a network approach and continuing with the current framework (U.S. Army plus partners) can potentially lead to inefficiencies and missed opportunities, as we describe further in this chapter with specific examples.

This chapter presents three tools to help planners begin to develop a network approach. First, we identify network archetypes to match to the GLN's value propositions. Second, we develop a set of questions that planners can use to incorporate network-specific considerations in their planning process. Finally, we develop a prototype design for a network-centric dashboard to illustrate how viewing a partner within its global and regional networks can identify potential opportunities that country-centric data analyses can miss.

What Is a Network?

Networks are used in multiple disciplines. In engineering, there are descriptions of networks of technical systems—a set of radios or software exchanging data in support of

higher-level processes. These networks can be quite complex but emanate from deliberate human activities to construct those relationships in support of overall goals of the system. In sociology, networks tend to have a different meaning, such as the more-organic human networks that are created and destroyed within and among communities of disparate interests. At their most basic level, networks can be conceived of as collections of nodes, representing the entities included in the potential space, and relationships, representing the connections among entities. The nodes can represent disparate entities, the relationships can capture all the different ways those entities interact, and both can be tailored to questions at hand. Relationships can be very broad affiliations or specific agreements, formal or informal, reciprocated or asymmetric, or even implied by a shared use of resources, between two parties working together to achieve some collective end. Relationships can be institutional or exist only at a personal level. They can grow and shrink over time, become complicated because of real-time events, and show significant opportunities when least expected.

In describing the network approach employed in creating and maintaining GLN, we adopt elements of both the sociological and engineering network concepts. Thus, in our usage, *network* refers to an association of entities with common interests and formed to provide mutual assistance, share useful information, and potentially engage in common action. This description is consistent with the intent of recent strategic documents, such as the NSS, which stresses the importance of involving partners in future U.S. operations (White House, 2015, p. 3).

The relationships that define the GLN do not depend on a new formal international framework. Formal agreements, such as treaties, provide a strong impetus for entities to work together and to cover for specific interactions and funding. However, most relationships are not embedded in formal structures, such as treaties. Personal interactions between two soldiers can begin a relationship, which later might grow. Implied relationships can grow out of a shared use of geographic locations and existing infrastructure (e.g., ports, airstrips, training areas, disputed territory). Some relationships can represent participation in or use of specific systems (e.g., intelligence or information systems, personnel systems, or trade systems). In these examples, the frequency, depth, and number of interactions can lead to more-significant, long-lasting relationships being built out of several smaller ones. Specific, formal agreements can form from less specific personal bonds, which, in turn, can lead to new specific, formal agreements. For example, a unit exchange occurs when a country sends a unit to the United States and the United States then sends one abroad, both to engage in training and education in each other's systems. It is part of formalized training, is governed by U.S. Army regulations, and entails formal U.S. State Department support. The informal relationships that then flow from those unit exchanges—say, between the tactical commands and staffs—can have monumental impact on future relationships between the countries or units working together. In this example, leaders educated together ascend through the ranks and further develop previously established relationships. This creates

a cycle of relationship-building that can continue to develop the GLN with more and deeper relationships between nodes while also introducing new nodes to the network.

The world is composed of a global network of nations, with interconnected communications, commerce, and politics. Partnerships between countries in various regions already exist that the Army can leverage to achieve the GLN goal of building a multilateral network to respond to contingencies and establish a multinational joint capability. Using the Army's resources strategically to strengthen existing partnerships and create new ones as part of the GLN and optimizing partner-country networks to focus on particular functions to enable specific goals will help the Army to respond to enduring challenges and emergent threats.

Defining a Network Approach Through Archetypes

Applying a network science approach to Army engagement activities and planning can provide a way to assess and prioritize partner relationships. More specifically, one part of employing a network approach is to understand the connectivity between partners and thus the overall network structure. We propose that, by comparing existing partner relationships to *network archetypes*, canonical network structures that exemplify and promote particular functions, ASCC staff can easily and quickly identify areas in which they should create new relationships, strengthen existing relationships, and possibly even redistribute resources. In this section, we provide a brief primer on networks and network structure and then describe how these structures can be applied to planning ASCC activities and implementing the GLN.

At its most basic, a network is collection of *nodes* and *edges*. The *nodes* can represent people, organizations, countries, companies, computers, and so forth, while the *edges* can represent the relationships between and among the nodes, including friendships, organizational cooperation, the flow of money, goods, and Internet protocol packets.

With respect to the GLN, the nodes include people, collections of people (e.g., military units), or even abstract entities (e.g., countries). Common nodes are partner and allied nations (e.g., NATO countries), individual units within a foreign army, or senior military leaders educated in the United States. A military unit deployed to Lithuania might be considered a node just as easily as TRADOC HQ at Fort Eustis, the U.S. Army War College (USAWC), or each ASCC. The Army does not interact only with other armies; instead, it and other landpower elements interact at all different levels of organization, both within and outside of their institutional structures. Each node can be linked to the others through a variety of types of relationships that make up the GLN, including information-sharing agreements, joint training and exercises, and engagement and assistance.

The network concept is especially flexible in terms of the types of relationships that a network can represent. With a given set of countries as the nodes in a network, we can examine economic ties through trade data, political ties through participation in intergovernmental organizations, information sharing through intelligence liaison ties, collaboration through instances of joint training and exercises, partnerships through formal agreements, as well as other types of relationships. This multilayered approach can be beneficial to the development of the GLN. For example, economic and political ties between countries can serve as a useful indicator of where there is potential to form deeper, more-formal partnerships.

By employing networks and network approaches to the formalization of the GLN, each set of relationships would be used to form a different network with a potentially different function, leading to the accomplishment of a different goal. For example, a joint training network serves the function of transferring knowledge from the United States to partner countries and from partner countries to regional organizations, with the eventual goal of creating partner forces that can operate independently of the U.S. Army. An information-sharing network serves the function of sharing intelligence between partner countries, with the goal of each nation having comprehensive situational awareness on a particular regional issue. Each layer of the network, representing different types of relationships,[2] can be evaluated on how it is currently implemented as compared with its desired structure to meet the GLN goals. The main challenge, from a planning perspective, is thus to determine what those desired structures ought to be. Network theory provides insight into this problem, through the lens of network *archetypes* and their characteristics, as described in the following sections.

The GLN can and should be more than a collection of partnerships between the U.S. Army and other countries or organizations. In some cases, viewing the U.S. Army as the central coordinator, conducting training with transferring knowledge to or sharing intelligence with specific partners will help enable the formalization of the GLN, but not in the most efficient way. Enabling partners to more actively participate with other partners can lessen the burden on the United States, enabling GLN objectives (i.e., helping the Army to achieve national security objectives) to be achieved more efficiently and robustly.

Network Efficiency and Robustness

In constructing a new network or evaluating the structure of an existing network, there are two basic concerns: (1) What pattern of edges connects every node (at least indirectly) to another? (2) What pattern of edges prevents nodes from becoming disconnected from each other? Each can be viewed as a cost trade-off of efficiency versus robustness. If the cost of connecting (and maintaining) edges is high, one might generate a network with the fewest possible edges—a goal of *efficiency.* If the consequences of

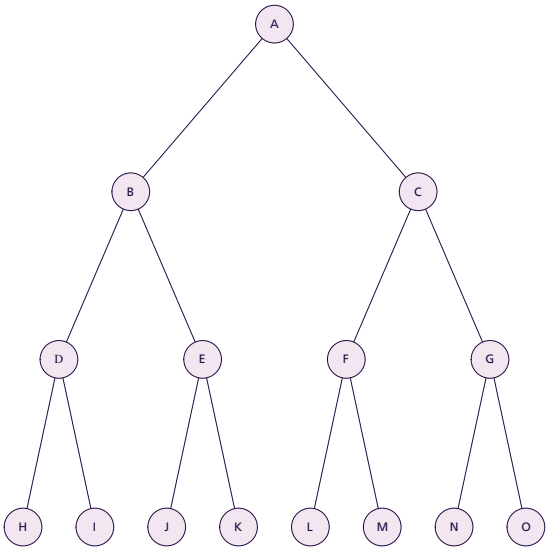
[2] In network theory, this layered approach is commonly referred to as a *multigraph.*

disconnected nodes are severe, one might generate a network with many independent chains of edges that connect each pair of nodes in such a way that many edges would have to be removed before any node disconnection would occur—a goal of *robustness*.[3]

For example, designers generally strive to make bridge networks in road and railway systems efficient, because bridge building is costly, and bridges tend to be very durable (i.e., hard to disconnect). In contrast, nuclear strike authorization networks are built for robustness because communication technology is fragile, and the consequences of failed execution (or deterrence) are catastrophic. Thus, the definition of *optimal*, in a network sense, depends on the function that the network is meant to serve. For the GLN, the optimal structure of the network representing a particular type of relationship among partners will depend on how that network is meant to support one or more of the GLN objectives. In most Army engagement strategies, however, the goal will be to ensure robustness with a minimum of investment—maintaining efficiency and robustness, carefully balancing the two concepts. In this section, we briefly outline the two extremes of efficiency and robustness (a tree and a clique). In later sections, we discuss how GLN networks might fall in between these two extremes.

The most efficient possible network is a *tree*, depicted in Figure 3.1. Trees are commonly seen in organizational hierarchies and connect N nodes with N – 1 edges.

Figure 3.1
Canonical Tree Network



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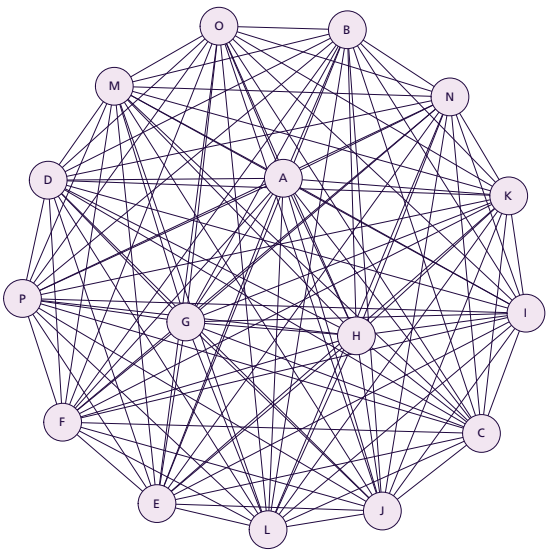
[3] Although the term *robustness* has been used to represent many different concepts, we use it here to indicate the degree to which a network can still serve its function even if several of the nodes in the network are removed, similar to the concept of robustness used in computer and power networks.

It is mathematically provable that this is the minimum number required for full connectivity between all nodes. Thus, a tree minimizes the edge cost involved in building a network. However, the removal of any edge can disconnect up to half of the nodes from others, so it is also a very fragile network. Two common examples of a tree network are telephone trees that schools use to expedite information flow during crises and information transmission between Army echelons.

Viewing the tree network from the opposite direction (bottom-up rather than top-down) makes obvious how such structures are very useful for gathering information, passing bits up to higher-level nodes, which can combine them to form a bigger picture, and so on, until the top-level node has all of the required information with much less effort than would be needed to connect directly with all of the bottom-level leaf nodes. It is not by coincidence that this structure is often observed in corporations, military units, and other organizations, both for the efficient flow of information and efficient control.

The robustness of a network increases with the number of independent pathways connecting each pair of nodes—the number of edge chains that connect a pair of nodes but share no edges in common. A complete *clique* network (Figure 3.2) places an edge between every pair of nodes. It is the least efficient possible network but the most robust. A full 50 percent of the edges would need to be removed in order to split this kind of network in half. Splitting a 16-node network in half would require the removal of 120 edges. Implicitly, when directives generally encourage "more connectivity," they are suggesting that the underlying network look more like and function more

Figure 3.2
Canonical Clique Network



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like a clique. In the GLN, a clique structure would allow the Army to rely on partners to work with each other to solve issues, rather than having to coordinate everything itself. However, despite being robust to node or edge failure, the structure has some limitations, including profound inefficiency, which diminishes its usefulness for most applications (targeted connectivity is generally preferable to blanket connectivity). For example, consider conversations occurring via email. Although a topic might start off as general, if it branches off into a specific issue, having a subset of participants involved in a conversation will be more beneficial and far more efficient than having an entire group or organization involved. Similarly, information-sharing networks might be more efficient if a specific set of organizations is involved rather than all potential partners.

Network Connectivity and Inequality

A key insight of network analysis is that the connections between entities have consequences for the outcomes that those entities experience. As a result, inequality in network connectivity can translate into unequal outcomes. Consider the variability in interpersonal ties among Army officers. More-formal relationships between the United States and its partners can grow out of these informal ties, but the variability in ties can bias that growth. Partners that have more access to U.S. Army officers through educational ties might end up receiving more benefits from the GLN simply as a result of this growth, rather than an objective prioritization of partners for a specific GLN function.

One way to think about inequality is in the direct number of connections each node possesses: *radial inequality*. In circumstances in which each connection provides a benefit (imagine campaign donors in a system with strict contribution limits or ASCC personnel leveraging contacts within a region to gain local knowledge), the node with more connections is at an advantage. In circumstances in which each connection comes with a cost (e.g., students whom a teacher must manage or security partners that need financial assistance), the node with more connections is at a disadvantage. This disadvantage might also manifest as increased risk to the central node as a result of obligations to partners in the network. When engaging only bilaterally and not employing a network approach, the Army assumes all cost and risk by being the only connection between partners. In this arrangement, the Army cannot rely on the relationships between partners to be used to solve local issues before they potentially metastasize into regional or global problems.

A second way to think about inequality is in terms of indirect pathways to other nodes: *medial inequality*. A network is a collection of nodes that are indirectly connected through chains of edges, some shorter than others. In some situations, such as exchange networks, a node with many short chains can be an advantage. Nodes that are indispensable parts of edge chains between other nodes have the opportunity to serve as mediators or "brokers" for the nodes that connect through them. Their power to regulate actions between parties is inversely proportional to the number of

alternative edge chains that could potentially connect them. Emerson, 1962, famously argues that power is the inverse of dependence. To the extent that network ties provide access to valued resources, network structure creates an imbalance in power. In general, actor X has network power over Y to extent that Y has few alternatives to X for accessing badly needed resources and X has many alternatives to Y for accessing badly needed resources. Extensive experimental work has demonstrated that having better network position (i.e., trading partners need X more than X needs them) corresponds to attaining more-favorable terms of trade. These imbalances have consequences for everyone "downstream" in the network: Their cost structures will have to compensate for the profit extracted from previous links in the value chain.

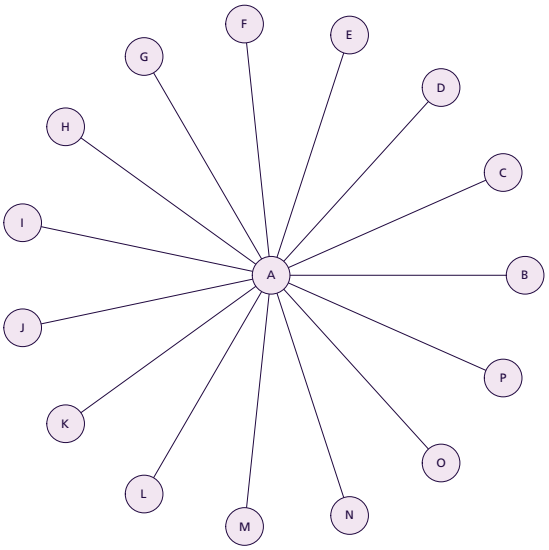
Within the GLN, it is very important for planners to consider this sort of network power and position for the various types of activities they might want to conduct within a region. Activities planned in isolation, without consideration of how partners are connected to each other or to nonpartners, run the risk of having unintended consequences due to higher-order network effects. For example, consider an activity that is planned with two partners. Without planners knowing the current tension level between those two partners and adjusting the activity accordingly, the event could be detrimental rather than beneficial to the development of the GLN. Sharing intelligence is another area in which it is vital to understand the relationships between partners. Before sharing sensitive or even classified information with partners, as part of training or in response to specific events, it is important for the United States to understand where that information might spread. Certain countries could share that intelligence with others, and, without sufficient knowledge of those relationships, it would be impossible to anticipate such leaks.

In many regions and contexts, it will make sense for the U.S. Army to have the most medial and radial powers. However, in other situations (especially as described in the next section with respect to the GLN value propositions), it might be desirable to increase certain partners' radial or medial power. However, it is important to recognize that there is a limit to the GLN's and ASCCs' ability to shape this network. The U.S. Army has the most control over its relationship with partners, some influence over relationships between partners, little control over relationships between partners and nonpartners, and very little to no control over relationships between nonpartners.

Star networks,[4] shown in Figure 3.3, generate significant inequality. The central node is incident to every edge in the network, while all other nodes have merely one edge. However, all nodes are indirectly connected through very short edge chains (two edges maximum), which is why air traffic networks are replete with stars (i.e., hubs). Star nodes also tend to show up in coordination and decisionmaking networks because they ensure that information about all nodes will end up at a central location in a timely manner. However, centralization comes at a price—if the central node fails,

[4] Sometimes called hub and spoke networks.

Figure 3.3
Canonical Star Network



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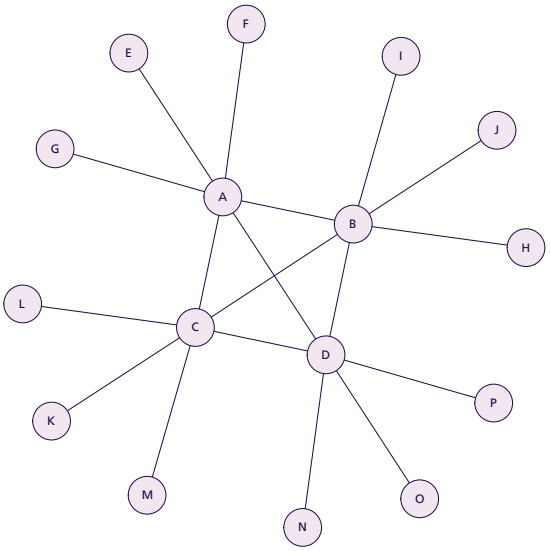
the entire network collapses. Moreover, the entire burden of maintaining the network falls on the shoulders of the central node, increasing the cost to the central node and increasing the risk of network failure. As we discuss in our companion report, much current Army engagement takes place within a star network. Engaging in only bilateral relations between the U.S. Army and partner countries within a region will result in a star network.

Most networks have some amount of inequality in the number of edges incident to each node. Nodes with many edges ("hubs") tend to have the advantage in exchange situations, though they are at a disadvantage in obligation situations. The way hubs connect to nonhubs has a significant impact on how much power they have—either forcing hubs to compete against each other or providing them with monopolies over subsets of nodes. However, the attributes that generate inequality in exchange situations are the same ones that generate effectiveness in organizational situations.

A *core–periphery* network is one in which nonhubs connect to one hub, but all hubs are connected to each other, as shown in Figure 3.4. Core–periphery networks grant those nodes in the core the most exchange power, because they create exchange monopolies over nonhubs, while limiting the power of the hubs over each other.

From an organizational perspective, a core–periphery network has the advantages, but not the weaknesses, of a star network. Like a star network, a core–periphery network has a center, where information from other nodes tends to accumulate. This is useful for coordination and decisionmaking. Unlike in a star network, however, the core consists of more than one node, so the burden of maintaining the network is dif-

Figure 3.4
Canonical Core–Periphery Network



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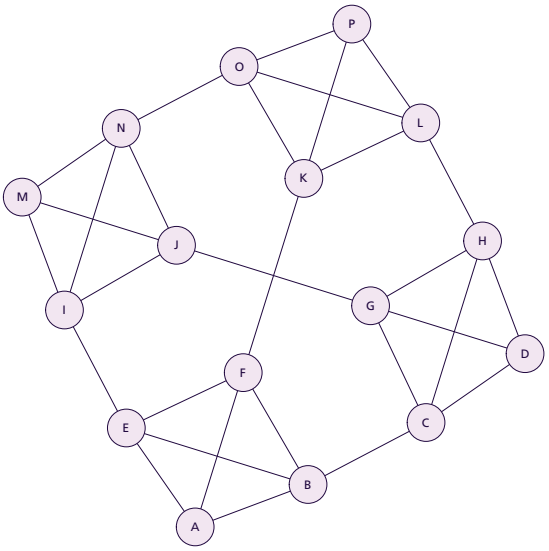
fused, and no single node failure can disconnect the entire network. Within the GLN, this structure could represent the connections between global partners, each of which has its own unique set of regional connections. Putting the U.S. Army at the center of the core (rather than at the center of a star network) would relieve some of the burdens while maintaining the benefits of such a central position.

Network Dynamics

Much of the language used in network analysis connotes movement, such as discussing chains of edges as "paths" between nodes or understanding inequality as related to "access." Information, resources, ways of thinking, obligations, and people are just a sampling of things that flow through network connections. This flow is one of the major mechanisms by which the connection between entities translates into outcomes for those entities. The flow dynamics of a network are heavily contingent on how movement happens on the network. This section addresses the most straightforward: movement along the shortest paths between nodes. The shortest path between two nodes is the chain of edges that connects them using the fewest edges.

The *multiscale* network nests structure within structure, and this nesting can make the lengths and routes of shortest paths more predictable. Figure 3.5 replicates the same network structure at two levels. At the first level are groups of four nodes, where each node is connected to the other nodes in its group. At the second level are four groups, where each group connects to the other groups. The result is regularity in the shortest path structure. Every node is one edge away from the other nodes in its

Figure 3.5
Canonical Multiscale Network



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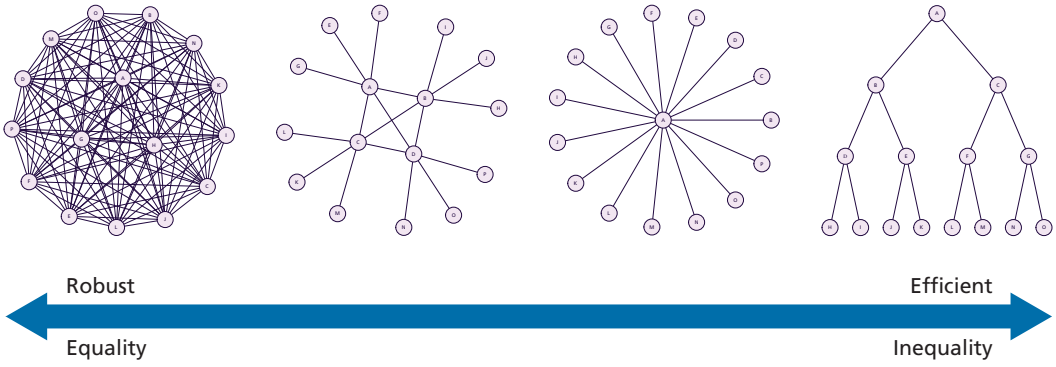
group, two edges away from the other groups, and three edges away from any non–group-connecting node in another group. Logistics and delivery services tend to form this type of multiscale network. Although it can actually increase the delivery time at moderate distances, it makes all delivery times more predictable and consistent. This structure also caters to the way people search networks—first trying to find the broad area containing the target node (its group), and then narrowing it down to the specific node.[5]

Speaking more broadly, the multiscale network reveals another way to think about network construction. Network archetypes can be nested within other network archetypes, where one archetype organizes nodes into groups and another organizes groups into a network. These layered networks tend to be highly *clustered*, with groups of nodes more tightly connected to each other than they are to the rest of the network. From this perspective, a variety of archetypes can be combined in a single network, with each cluster having a different structure and the whole network (viewing each cluster as a separate node and looking at how those clusters are connected to each other) having a unique structure of its own.

Putting these archetypes together, we can view them along a spectrum, with the clique at one end, representing a fully robust network, and the tree at the other end, representing a fully efficient network (see Figure 3.6). Most real-world networks and

[5] Note that this structure embeds two *grid* networks within each other. The grid network is frequently found when geographic spacing influences network structure.

Figure 3.6
Archetype Summary



many of the regional networks in the GLN will fall somewhere in between these two extremes, balancing the need for efficiency and robustness, with most connectivity concentrated in a few nodes and others relying on them for network resources.[6]

Network Structure in the Global Landpower Network

Current Army engagement strategy tends to focus on individual country prioritization—priority countries are identified within each region, and engagements with these countries are the primary focus for planners. Relationships between countries can be implicitly considered factors in prioritizations that individual planners perform, but their primary focus remains which partners to prioritize and how to engage them. This process faces two key shortcomings. First, if planners do not explicitly examine relationships between partners, the chances of missing how these relationships can affect the United States' ability to achieve its objectives increases. In particular, it decreases opportunities to enable partners to work with each other. Second, as operations in which the Army is involved become increasingly multinational, planners with whom we talked say, it is more difficult to prioritize individual countries. This was particularly apparent for U.S. Army Europe (USAREUR) planners working with NATO and non-NATO partners in Europe: Countries' importance did not reflect only their direct relationships with the United States but also their relationships with other U.S. partners. Additional guidance on how to engage partners in a networked environment can help address both of these shortcomings.

[6] Note that whether the tree or star network is most robust actually depends on whether disruption is targeted or random. A star is more robust to random disruption, while the tree is more robust to targeted disruption. They are equally efficient (N – 1 edges connects N nodes).

In many cases, connectivity between U.S. partners might already exist; an important aspect of employing a network approach to the GLN is to understand the connectivity between partners and thus the overall network structure. Leveraging the existing relationships between partner countries and working to strengthen and extend those relationships can result in partners better able to achieve strategic objectives with less U.S. Army investment, both in resources and time. However, it is unlikely that all networks within the GLN would be fully connected like the archetypical clique network, nor would this be desirable. In some cases, partner countries will not be able or willing to work with others in the network, in which case the network might have a more complicated, clustered structure, closer to that of the canonical core–periphery or multiscale network.

In these more-complicated network structures, some partner countries, based on their position in the network, will emerge as more-important enablers of the network's function. In some cases, clusters of countries might be desirable because they could be efficient in creating relationships between countries in different parts of the world to fulfill regional functions. In other cases, the GLN's goals might be best met by having a strong core anchored by the United States, with dense connections to top-tier or high-priority partners, and lower-priority partners on the periphery. From a global perspective, the GLN might include a core of high-capability countries connected to each other, with several regional networks providing access and support to operations.[7] In short, from a network perspective, the structure of the GLN will vary from region to region and from objective to objective.

Network Perspective on Engagement

The driving force behind efforts to institutionalize the GLN is to better enable the Army's achievement of theater, national, and strategic objectives. Conceiving of and approaching the institutionalization of the GLN as a network will help the Army use it more effectively to accomplish the eight strategic objectives specified in the GLN value proposition. This section details how each value proposition can be achieved, using network archetypes as the lens through which to view the Army's engagement with partners. Table 3.1 summarizes which archetypes are particularly useful for each value proposition, moving from the value propositions that benefit from the fully connected, more-robust networks to the ones that require more efficiency. We also highlight particular engagement activities that can support each value proposition.

Note that, in some cases, the recommended archetype is the star network, which is essentially the same as bilateral engagement. For example, in order for the U.S. Army

[7] In some ways, this is what is occurring with NATO's Very High Readiness Joint Task Force, in which one country leads an individual instantiation of the Very High Readiness Joint Task Force and then brings in particular partners to fill out that unit. Those partners either are selected by the lead or are self-selected based on relationships with that lead. It generates separate clusters of partners that have certain predilections toward each other and might exist independently of the more-inclusive and egalitarian NATO structures.

Table 3.1
Global Landpower Network Value Propositions, Network Archetypes, and Engagement Activities

Value Proposition	Archetype	Engagement Activity
Transitioning relationships	Clique	Humanitarian assistance, cooperation on transnational threats, and conferences
Creating interoperability for robust coalition operations	Clique subset	Personnel exchanges and information sharing
Increasing capacity and capability	Core–periphery and multiscale	Research and development, personnel exchanges, and information sharing
Operating through partners	Core–periphery and multiscale	Military education, security funding, and advanced arms activities
Getting ahead of future problems	Core–periphery and tree	Stability operations and defense institution building
Knowing your partners	Star	Civilian engagement and senior-leadership visits
Gaining knowledge of areas and lands	Star and tree	Surveillance and access agreements
Conveying strategic intent	Star and tree	Coalition-building and access agreements

to "know its partners," it makes sense to engage in a series of bilateral relationships with partners, rather than trying to strengthen connections between partners. This does not imply that the network approach is not useful. Rather, by consciously choosing to engage in bilateral rather than multilateral relations and understanding that, for this objective, the U.S. Army is best viewed as the central node in a star network, with both the benefits and burdens that connotes, planners can more precisely tailor activities and events to a given purpose and help shape the GLN to achieve specific objectives.

Transitioning Relationships

The first value proposition for a mature GLN is that relationships can begin as fairly minor, but their existence can help transition relationships to longer, enduring, and fruitful partnerships. From a network perspective, all relationships between all current and potential partners are worth examining for transition opportunities and avenues for strengthening ties. Outreach activities, such as humanitarian assistance, cooperation on transnational threats, and conferences, can help transition relationships both between the United States and its partners and between current and potential partners.

This goal naturally leads to viewing the GLN, both regionally and globally, as a clique. Although the clique is not particularly efficient, examining engagement through

this structure forces the viewer to consider all possible information channels and relationships, from the most prominent to the most minor. Those that exist only in the economic or political spheres might be ripe for developing into more-formal SC partnerships, particularly if a local threat is growing or in the case of a natural disaster. In most cases, the structure needed to solve a problem will not be a clique, but viewing the GLN as a clique for gathering information and identifying future opportunities can be valuable when exploring partnership opportunities. Focusing only on the bilateral relationships between the United States and partners will lead to a star network, potentially overlooking opportunities to strengthen relationships between U.S. partners.

Creating Interoperability for Robust Coalition Operations

Building and maintaining a breadth and depth of relationships among partners can help build interoperability for more-robust coalition operations. Because the goal here is to create a robust network, the clique archetype could be used to view GLN structure, although with the caveat that the nodes involved will likely not include all GLN partners. It is important to ensure not only that partners can work with the United States for operations but also that they can work with each other. From this perspective, the recommended archetype is a modified clique, involving a subset of partners, tailored to the region in question. For those key partners with which mutual trust already exists, activities that help create interoperability include personnel exchanges and information sharing. These activities can also help increase the capacity and capability of both the U.S. Army and partners.

Increasing Capacity and Capabilities

Relationships in the GLN—both partners' relationships with the U.S. Army and their relationships with each other—are a key pathway to increasing partner capacity and capabilities. Because it is unlikely that all partners in the GLN will be able to work with each other, the archetypes that are most useful for structuring these relationships are the multiscale and core–periphery networks, allowing for the fact that some relationships are simply not feasible while maximizing the opportunity for as many others as possible. Those partners with the highest existing capacity and capabilities can work together to form the core of the network while interacting with others in their respective regions that have lower capabilities (the periphery) and, eventually, possibly integrating those partners into the core. The multiscale network archetype can serve a similar purpose for increasing capacity and capabilities to conduct particular operations, such as humanitarian aid or counternarcotics. Partners with lower-level capabilities can be linked with each other and more-capable partners, which, in turn, are linked together to maximize their ability to work together. Depending on the capabilities of those involved and the scope of the capacity building, activities could include research and development, personnel exchanges, or information sharing.

Operating Through Partners

To get ahead of future problems, especially in today's fiscally constrained environment, it is very important to operate through partners to facilitate local solutions to problems. Building the capacity and capability of U.S. partners can also help facilitate local solutions to global problems, particularly those of U.S. interest. Planners could consider activities that would enhance partners' effectiveness and ability to be a stabilizing influence in their regions, such as military education, security funding, and advanced arms activities. The core–periphery archetype is very valuable here in that it clearly outlines how regional partners can interact with each other, coordinating locally, with the United States and other partners operating at a global level but still facilitating local efforts. The multiscale network also provides some insight into how to structure relationships to achieve this value proposition: Creating multiple local networks for particular issues (such as supply distribution) that can be replicated at higher levels or even in other regions can be very useful.

Getting Ahead of Future Problems

GLN relationships will also help the United States address future problems before they potentially become regional or global issues. These problems can start as relatively minor regional conflicts between or even within individual countries. By having the U.S. Army embedded in a local network of partners and enabling those local partners to work together, solving some of these local problems before they spread might be possible. For less capable partners, planners could focus on activities that increase the partner's level of professionalization, such as stability operations that help a partner country achieve internal security and activities related to defense institution building, which diminish the risk that the military itself will be a source of instability. From a network perspective, this value proposition naturally lends itself to the core–periphery or tree network structure, with local nodes coordinating local efforts but relying on higher (core)–level nodes for support, such as resources or intelligence.

Knowing Your Partners

GLN relationships can serve as a valuable source for knowledge of network partners—their problems, capabilities, and biases—which eventually will be used to help build other relationships among partners. To achieve this value proposition, planners can focus on activities that build on common values, including civilian engagement and senior-leadership visits. These types of activities will be most valuable to view as a star network, with the U.S. Army as the center node, gathering information from various partners.

Gaining Knowledge of Areas and Lands

Increasing knowledge of areas and lands can speed future access in various regions of the world. The GLN facilitates gaining this knowledge through partner relationships, and, in this case, as with the "knowing your partners" value proposition, is valuable to

view as a United States–centric star network. It is also possible for this knowledge to "flow" upward through the tree network structure, if resources are constrained. The U.S. Army might not have the capability to maintain cultural, linguistic, and political experts for every distinct group in every global region. Instead, by employing a tree structure for the GLN, the Army can ensure that those experts will be available and able to work with GLN partners when needed. Activities in support of this value proposition include surveillance and access agreements.

Conveying Strategic Intent

GLN relationships and the activities that support them enable the United States to flexibly demonstrate strategic U.S. intent with clarity and indicate an availability to escalate as necessary. Although it is necessary to tailor the network structure desired to the particular intent that is to be conveyed, in most cases, the star or tree network archetype can be valuable for viewing the GLN for this purpose. Through coalition-building and creating access agreements, the GLN will ensure that the United States is engaging with a particular set of partners (the star network) and enabling those partners to work with others locally in a particular region (the tree network), which both serve to convey strategic intent. From a global perspective, it is likely that the GLN will employ a multiscale network, embedding different network structures in different regions—a grid network for ensuring area coverage, a tree network for delegated responsibility, a clique for containment of a near-peer competitor—with different structures for different purposes.

Motivation for Adopting a Network Approach

The preceding descriptions are intended to convey the logic behind picking a network archetype to facilitate meeting each of the value propositions. In each case, there is an implicit decision as to how robust and egalitarian the network needs to be, given overall goals and under typical constraints, such as time and money. One question to consider is the cost of being wrong. That is, if either no network choice is made (and the ad hoc collection of bilateral relationships persists) or the wrong network is chosen, what problems might arise? In each of the value propositions, there is regret from such a misstep, and the degree to which this regret matters is important and situational.

Returning to the key metrics that describe networks, if a robust network is needed for a given value proposition and a more fragile network is actually built, the Army might not be able to realize the value proposition when needed. As an example, the value proposition to build interoperability for robust coalition operations is predicated on a fairly robust set of actors having significant relationships that can be leveraged to overcome the cultural and technical barriers to interoperation. If that network is not built, the Army could find itself without access to specific partners in future operations that it assumed would be there.

Similarly, if an inefficient network is needed to maximize the number of partners engaged for one of the value propositions, building a more efficient network with implied dependencies could create significant gaps. For instance, knowledge of areas and lands for general access to certain regions requires a series of independent relationships with partner countries in a star network. Circumstances could change that network—for example, because planners implicitly assume that only a subset of relationships is operationally necessary—and open gaps in access that manifest only in times of need.

With limited resources available, engagement planners will necessarily have to pick and choose the countries with which to engage and through which activities. Having an understanding of what the desired network is, how resourcing can be applied to it, and, importantly, what risks are being run while striving to attain the "right" network will help with planning future engagements.

There are several reasons that the limitations of not adopting a network approach might be more important going into the future. First, there is considerably more interest in engagement and engagement-like activities that bring the United States closer to new and disparate partners. Necessarily, this will create situations in which one relationship is in conflict with another. And it will create a growing expectation for value to come from those relationships, with the concomitant cost for not attaining that value. Understanding where those problems might arise and being prepared to deal with them is part of having a network view of relationships.

Second, there will be limited resources to build these relationships and radically different costs associated with building one network (say, a clique network) as opposed to another network (say, a tree network). Being able to evaluate and decide on which networks to build for which purposes will help to ensure that resources are used parsimoniously. It will also help to illuminate the problems that might arise when resources become scarce or must be employed elsewhere.

Tools for Implementing a Network Approach to Engagement

To help Army planners consider the value of a network-centric engagement planning approach, we developed two proof-of-concept network analysis tools in keeping with the GLN concept. Planners should view the GLN not only as a set of relationships between the U.S. Army and key partners but also as a way to leverage current relationships and create new ones *between and among* partners. The tools discussed here can help create this framework by suggesting a way to prioritize partner countries and plan activities based on the GLN value propositions, proposed network archetypes, and existing relationship data. In short, incorporating a network perspective into planning can provide a pathway to extend or modify regional and global networks to meet GLN objectives.

Planning Template

To implement this network approach, we have developed a set of questions that planners can use to incorporate network-specific considerations in their planning process. This template illustrates the information necessary to identify and leverage Army relationships with partners and with partners' networks. Answers to each of these questions will be specific to each region and to each strategic objective. It is important to note that many of these questions are not new: Planners already plan events in support of strategic objectives. The key innovation we suggest is to connect that process to the network approach—incorporating partner relationship data into the process, leveraging relationships where appropriate, and creating new ones where needed.

Implementing this approach, however, will also require a change in the way in which partner-related data are collected and analyzed. In discussions with ASCC personnel, we found that most relationship and event information is partner-specific and does not include data on links between partners. To implement a network approach to engagement and fully realize the GLN's potential, planners will need access to more data on relationships between partners. Relationship data can come from unclassified and open sources, such as trade and migration data and classified reports, and from the planners themselves, based on their assessment of partners. This information can then be incorporated into the planning process through the set of questions outlined in the rest of this section.

What Is the Strategic Objective?

As with planning prior to the GLN, this is the first and most important question for planners to answer as they begin their process. Translating geographic combatant commander (GCC) objectives into specific implementations requires knowledge and understanding of those objectives and is a prerequisite to coordinating any GCC or GLN activities. More specifically, how can the GLN help achieve the strategic objective? This question forces a focus on the connection between the GLN and the GCC objectives, through the lens of engagement. Note that one or more GLN value propositions can be associated with each objective.

What Network Structures Are Useful for This Objective?

Different network structures are more or less useful for different types of activities—for example, star networks are useful for individual bilateral engagements. However, network structures, such as clique or multiscale, might be formed more effectively through multilateral engagements. Table 3.1 can serve as a useful guide for considering which network archetypes could be beneficial. In many cases, the precise archetype will likely not be achievable; the U.S. Army's control over relationships is largely based on participation in activities with those partners. Instead of attempting to replicate the archetype exactly, planners could consider the key characteristics of the recommended archetype (e.g., robustness, efficiency, distribution of connectivity) and determine the

best way, through a variety of engagement activities, to create those characteristics in the network of selected partners.

Which Global Landpower Network Partners Currently Exist for This Network, and How Are They Connected?

Note that, in some cases, the answer to this question might be none. If some partners do exist, however, planners should determine how the U.S. Army is connected to them, through infrastructure, formal and informal relationships, and previous activities. After determining the extent to which the U.S. Army engages with GLN partners, planners should determine how those partners are connected to each other. Information on these relationships can come from many sources, including economic, political, and military ties, as well as infrastructure and formal and informal relationships. Both this information and the U.S.–partner information should be documented and presented in a coherent, easy-to-understand format through the use of country and regional dashboards, as described in the next section.

How Does the Network Structure Planners Have Identified as Most Effective Differ from the Currently Existing Network Structure?

At this phase in the planning process, planners should assess how the current set of relationships between partners, including those directly involving the U.S. Army, differ from their chosen archetypes. Planners should determine whether existing regional network diagrams show that additional partners or relationships exist that could be leveraged. Planners should also ask which relationships could be created or strengthened to help achieve their objectives.

Which Regional Partners Should the Army Prioritize?

In this step, planners should use multiple viewpoints and inputs to prioritize regional partners with which to engage to accomplish GCC strategic objectives. One input into this prioritization is the differences or overlaps identified with the selected archetypes. Another set of inputs is relevant partner-country characteristics, such as partners' military capabilities and their political attractiveness to the United States.

Which Activities Are Appropriate to Undertake with Selected Partners?

Finally, planners should use all of this information to determine a set of activities to conduct with selected partners. These steps can help transparently link GCC strategic objectives with planners' understandings of the network archetypes that would be most effective to meet GCC objectives, an assessment of how partners' networks help support GCC objectives, and a range of activities that can build the network's capabilities to support GCC objectives.

Global, Regional, and Country-Specific Dashboards

One type of tool that could support the planning template outlined above is a country and regional dashboard, summarizing GLN activities, country characteristics, and

relationship data. These dashboards (one for each geographic combatant command [CCMD] and each country within each geographic CCMD) should be interactive, living constructs, potentially embedded in the Army enterprise data management system, either as dedicated systems for each ASCC or as an Army-wide network.[8] Our discussions with ASCC personnel highlighted that dashboards that presented global, regional, and country views of network relationships would be useful for ASCC leadership, as well as planners and executors. In our discussions with personnel at the USMA Network Science Center, these personnel reported that the center would be well situated to develop these prototype dashboards if the Army decides that further investment in Army planning resources for the GLN is merited. We strongly suggest that the USMA Network Science Center work with Army component command, control, communications, and computer systems staff officers (G-6) to identify opportunities and constraints to integrating such a tool with the Army enterprise data management system.

Given the ASCCs' roles in planning and executing Army engagements with partners, dashboards illustrating partners' network relationships will be of the most value for ASCCs, providing planners with a comprehensive view of their region and associated partner relationships and helping them assess past, current, and future GLN activities. A proof of concept of what a dashboard might look like is provided in Figure 3.7. For each country, the dashboard could display relevant country characteristics, such as the country's military capabilities and political attractiveness to the United States,[9] a histogram of past events in which they have participated, and the activities that ASCC planners consider particularly important. For planners adopting the network-centric planning template presented above, the dashboard would illustrate graphically the current network position of each country and how it is tied to other partners in the region. With this information easily viewable, ASCC planners could then compare how partners are currently connected with their desired network structure and plan engagement activities accordingly.

The specific layout and content of the dashboards ought to be tailored to the needs of GCCs and ASCC planners and modified as the GLN matures as a concept and is implemented. The point of the dashboard is to present network and characteristic data concisely in an easily digestible format so that planners can take advantage of them, identifying opportunities to create or strengthen network ties, track events from a network perspective, and plan future events. It should be viewed as an enabler of, rather than the end product of, the GLN.

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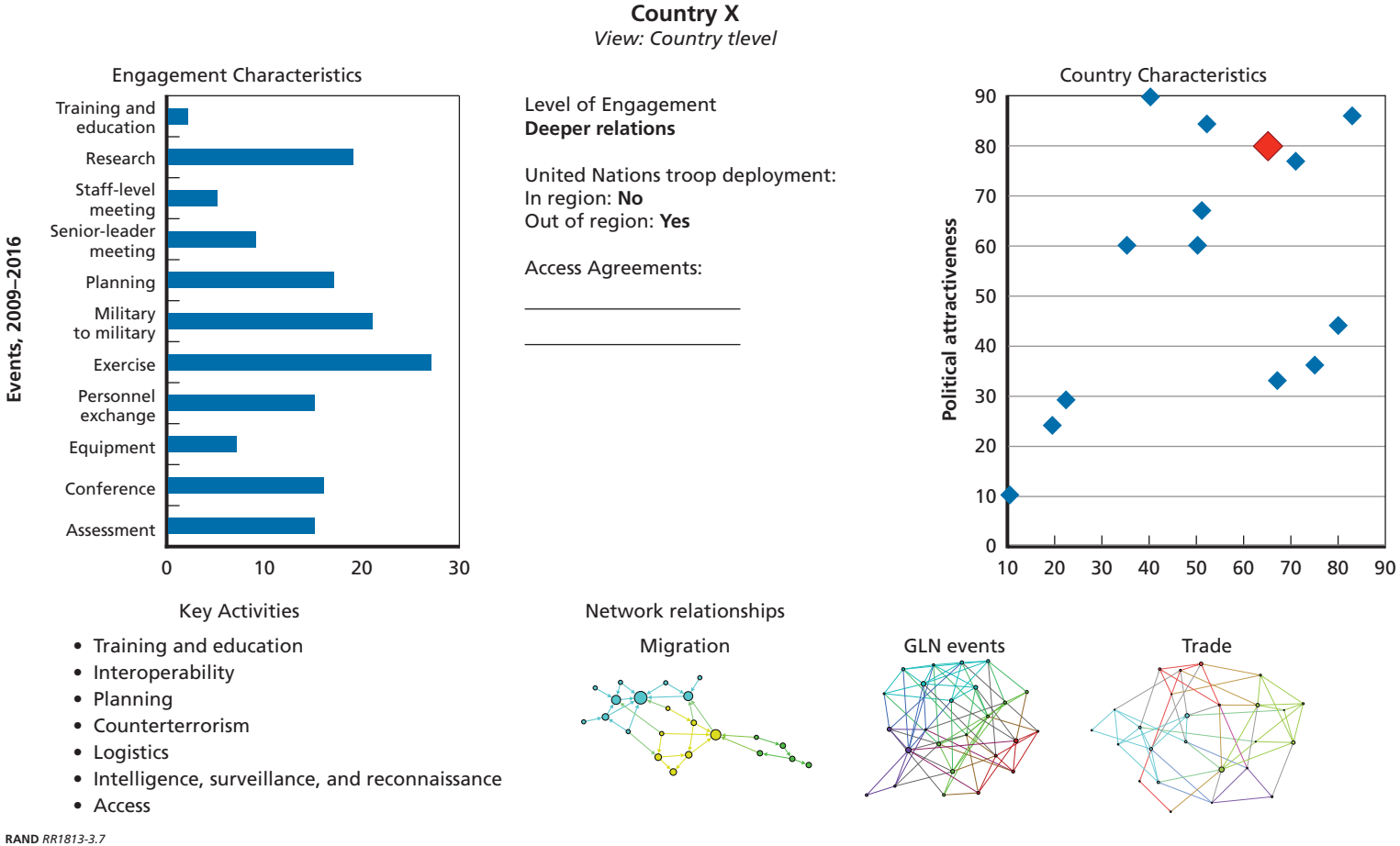
[8] A geographic CCMD is a CCMD with a regional responsibility defined by an area of responsibility (AOR) (HQDA, 2014c, p. 1-5).

[9] Mendelsohn et al., 2016, discusses potential country characteristics to examine.

Figure 3.7
Sample Global Landpower Network Country-Level Dashboard



Conclusion

In its analysis of the GLN concept, the SSG argued that, as the Army adopts a strategy of working with partners, Army planners need better tools for understanding how to leverage partner networks to achieve U.S. strategic objectives. Our analysis of network science concurs with the SSG's position: A network approach to engagement planning that incorporates partners' global and regional networks can produce a more comprehensive understanding of the Army's operational environment than a planning approach that focuses only on the direct linkages between the United States and its partners.

However, developing a network approach to planning is easier said than done. To do so, planners need to understand how different network structures affect outcomes, and they need access to additional information to understand empirically what regional networks look like. We have identified three tools to help planners begin to develop a network approach. First, we drew on network science research to match network archetypes to the GLN's value propositions. These archetypes illustrate how network planners can identify their preferred network structures to accomplish U.S. strategic objectives and undertake activities that can best shape global and regional partner relationships. Second, we developed a set of questions that planners can use to incorporate network-specific considerations in their planning processes. Finally, we developed a prototype design for a network-centric dashboard to illustrate how viewing a partner within its global and regional networks can identify potential opportunities that country-centric data analyses can miss. Our discussions at the ASCCs revealed that such a dashboard would be valuable to both planners and senior leaders involved in partner engagement.

All three of these tools are nascent. As the Army develops the GLN concept further, each of these tools can be tailored to meet GLN needs. As the Army expands the GLN, it can assess how beneficial it will be to the Army to invest in the training and data collection necessary to implement these tools. We believe that the USMA Network Science Center is a valuable partner for further refining and implementing these tools. As these tools are prepared for deployment, G-6 should be involved in integrating them into existing Army enterprise data management systems.

CHAPTER FOUR

Global Landpower Network Support to National and Army Strategy

Conceptually, the GLN enables the Army to strengthen and expand its network of partners to proactively address common security problems and pursue collective security objectives. The GLN concept focuses on the Army's role in developing and sustaining its global partnerships. However, the Army's role in the GLN is only one part of the U.S. government's broader engagement in global networks. The GLN concept is embedded in, is informed by, and provides support for U.S. national security strategy as articulated in national and Army strategy documents. As such, a fully developed GLN can be instrumental in achieving the security objectives identified in national and Army strategy documents and might position the Army better to carry out its missions.

The Global Landpower Network Reflects National Strategy and Contributes to the Achievement of National Security Objectives

In his May 2014 West Point speech, President Obama highlighted some of the important assumptions underlying U.S. national security strategy when he reemphasized the importance of working with and through partners to address threats to U.S. national security. While reiterating the right of the United States to use force unilaterally if necessary when its "core interests demand it," the president highlighted the importance of being able to mobilize allies and partners to take collective action during international crises and observed that "we have to work with others because collective action in these circumstances is more likely to succeed, more likely to be sustained, less likely to lead to costly mistakes" (White House, 2014). Effectively partnering with and empowering countries threatened by terrorist networks was presented as the preferred strategy for dealing with the diffuse threat of terrorism, where sending U.S. troops risked overstretching the U.S. military or generating local opposition and "creating more enemies than we take off the battlefield." Similarly, empowering local partners to handle their own regional problems reduces the need for the United States to put its own forces in harm's way and is a cost-effective way to secure U.S. security interests. Finally, the president argued that America's ability to exert leadership and build coalitions was a

source of strength and that further reinforcing the institutional basis of such coalitions would enable the United States to "anticipate and prevent problems from spreading" (White House, 2014).

The themes that the president articulated in his May 2014 speech are embedded throughout U.S. national security guidance. DoD's 2014 QDR identifies "building security globally" as one of the three key pillars of the DoD defense strategy. It notes that a continuing "strong U.S. commitment to shaping world events is essential to deter and prevent conflict and to assure our allies and partners of our commitment to our shared security. This global engagement is fundamental to U.S. leadership and influence" (DoD, 2014, pp. 12, 16–19). The QDR further highlights the importance of DoD efforts to reduce potential conflict by deterring aggression and coercive behavior and by positively influencing global events through proactive engagement (DoD, 2014, p. 11). Finally, U.S. leadership and capabilities are expected to drive global cooperation on common security problems and to build global and regional coalitions that "will undergird the ability of the United States to face future crises and contingencies" (DoD, 2014, p. 9).

The 2015 NSS also emphasizes the importance of U.S. global leadership in advancing U.S. security. It states that the United States will lead with capable partners because,

> [i]n an interconnected world, there are no global problems that can be solved without the United States, and few that can be solved by the United States alone. American leadership remains essential for mobilizing collective action to address global risks and seize strategic opportunities. Our closest partners and allies will remain the cornerstone of our international engagement. Yet, we will continuously expand the scope of cooperation to encompass other state partners, non-state and private actors, and international institutions—particularly the United Nations (U.N.), international financial institutions, and key regional organizations. These partnerships can deliver essential capacity to share the burdens of maintaining global security and prosperity and to uphold the norms that govern responsible international behavior. (White House, 2015, p. 3)

These partnerships are important because they are critical for sustaining an international order that has supported U.S. security interests since the end of World War II. They also allow the United States to stifle opponents' efforts to challenge international norms and stability by enabling the United States to advance a long-term affirmative agenda that "prioritizes reinvigorating alliances with long-standing friends, making investments in new partnerships with emerging democratic powers with whom our interests are increasingly aligned, and continuing to support the development of capable, inclusive regional institutions to help enforce common international rules" (White House, 2015, p. 3).

The 2015 National Military Strategy (NMS) also emphasizes the importance of a network of alliances and of the U.S. military's ability to remain globally engaged in order to positively shape the security environment. The NMS identifies a rule-based international system sustained by U.S. leadership, which promotes "peace, security, and opportunity through stronger cooperation to meet global challenges" as an enduring U.S. national interest. It further posits that strengthening the global network of U.S. allies and partners is one of three key national military objectives (Joint Chiefs of Staff [JCS], 2015, p. 5). The NMS identifies partners as being important for the U.S. military's ability to deter, deny, and defeat state adversaries, as well as to disrupt, degrade, and defeat violent extremist organizations. With regard to combating terrorist groups, "credible regional partners are vital to sustaining counter–[violent extremist organization] campaigns." The U.S. military enables its partners by providing "training in support of local partners that provide the majority of forces necessary to restore and secure their homelands." As a result, campaigns are often long ones; they need to be conducted in a politically, financially, and militarily sustainable fashion that optimizes the power of coalitions (JCS, 2015, pp. 7–8). Finally, the NMS observes that

> America's global network of allies and partners is a unique strength that provides the foundation for international security and stability. These partnerships also facilitate the growth of prosperity around the world, from which all nations benefit. (JCS, 2015, p. 9)

Taken together, U.S. national security guidance states that, in the future, the U.S. military will continue to utilize allies and partners to secure and promote common interests and will seek to preserve existing alliances, expand partnerships, and maintain a global stabilizing presence. Activities in pursuit of these goals will "increase the capabilities and capacity of partners, thereby enhancing our collective ability to deter aggression and defeat extremists" (JCS, 2015, p. 9). The high-level U.S. strategy documents and approaches reviewed in this section all emphasize the criticality of a global network of partners to help secure and advance U.S. national interests. As we discuss in the next section, recent U.S. Army strategy and emerging operational concepts embody and support this strategic approach. It is a strategic approach that the GLN concept is designed to support, reinforce, and execute.

The Global Landpower Network Supports Army Strategy and Enables Key Army Competencies

Because of its relative newness, the GLN concept is not incorporated fully into current Army strategy documents. Indeed, as we note below, the only substantive reference to the GLN is in the December 2014 Army Operating Concept (AOC), which mentions the GLN concept in reference to the Army's need to engage regionally so as

to favorably shape the security environment and prevent conflict. The GLN concept embedded in the AOC reflects then–Chief of Staff of the Army General Odierno's July 2014 observation that the GLN is a "framework of relationships devoted to shaping the global environment to enable U.S. forces and partners to advance strategic interests; it strengthens military to military contacts, and helps allies and partners build the capacity to defend themselves" (U.S. Army Chief of Staff, 2014, p. 5). Although Army strategy documents do not discuss the GLN concept explicitly, the value propositions underlying the GLN are embedded throughout these documents. In particular, shaping, engagement, and preventing local problems from growing into major security threats are key themes running through Army strategy documents.[1]

Identifying the Army's Role in National Strategy: The Army Vision

The Army Plan (TAP) is a series of five linked strategy documents that provide guidance, strategic focus, and programming priorities to the U.S. Army. As a whole, TAP aligns the Army's ends, ways, and means and helps translate the Army's vision and strategy into integrated solutions across the doctrine, organization, training, materiel, leadership and education, personnel, facility, and policy domains and shape decisions for the Army's annual budget and program submissions.[2] The Army Vision is the source document to which the rest of TAP is tied.[3] The Army Vision presents the unified vision of the Army secretary and the chief of staff and articulates the Army's ends that support national strategy. The Army Vision also provides the desired end state for the Army over a ten-year horizon in order to drive future change (HQDA, 2014f, p. 5).

The current Army Vision was published in May 2015 and does not directly reference the GLN. The GLN, however, would support the strategic goals of the "Army of

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[1] The AOC defines shaping the security environment as a combination of activities that "reassure partners, curtail aggression, and influence local perceptions, while establishing conditions that support the employment of Army forces" (TRADOC, 2014a, pp. iv, 17, 22, 48).

TRADOC defines *engagement* broadly. Engagement activities

> focus on routine contact and interaction between U.S. Army forces and with unified action partners that build trust and confidence, share information, coordinate mutual activities, and maintain influence. Along with other warfighting functions, engagement enables the commander to identify and organize resources that develop relationships and capacity with key unified action partners through persistent activities. (TRADOC, 2014a, p. 5)

With regard to the GLN, engagement focuses on partnership activities that include civil–military operations and Army support to SC (SC security assistance, foreign internal defense, and security force assistance) (TRADOC, 2014a, pp. 5, 12–14).

[2] According to HQDA, 2014f, the five documents are the Army Vision (U.S. Army, 2015a), Army Strategic Plan, Army Planning Guidance, Army Programming Guidance Memorandum, and the Army Campaign Plan (HQDA, 2014f, p. 1).

[3] The Army Vision and the Army Strategic Plan replaced the former Army Strategic Planning Guidance in late 2014 in TAP. The Army published the Army Vision in May 2015, but, as of November 2015, the Army had not publicly released its new Army Strategic Vision.

2025 and Beyond." In particular, by developing a network of partners to proactively address common security problems and strengthening partners' and the U.S. Army's ability to achieve collective security objectives, the GLN would support the Army's desired end state of a future force with the ability to do the following:

- "Effectively employ lethal and non-lethal overmatch against an adversary to prevent, shape, and win conflicts . . . ."
- "Leverage cross-cultural and regional experts to operate among populations, promote regional security, and be interoperable" with U.S. and foreign partners.
- Be an "expeditionary force that can rapidly deploy to any place on the globe and conduct sustained operations within the full range of military operations" (U.S. Army, 2015a, p. 11).

Although the Army Vision does not use the term *global network* to describe its future requirements, it captures the essence of the GLN when it notes that an increasing number of operations will be conducted within and among populations and that the future Army requires an "enhanced ability to consolidate and integrate contributions from government, military, and coalition partners" (U.S. Army, 2015a, p. 3). The Army Vision identifies four unique roles in which the Army maintains a comparative advantage. The GLN would particularly enhance two of these roles: the integration of operations and operations among the people. The Army Vision further states that the Army is an essential integrator of military, interagency, and multinational operations, in part because of its robust presence around the globe. The Army Vision also notes that the Army's nonlethal capabilities enable it to work with local governments and populations; conduct protracted operations within local populations that can result in enduring working relationships; and develop relationships that "create unique and enduring bonds that build capacity, transparency, and trust" (U.S. Army, 2015a, pp. 3–4).

The Army Vision states that, in order to meet the challenges of the future, the Army needs to serve as the "key integrator of U.S. and allied efforts in defense of the Nation and its interests" (U.S. Army, 2015a, p. 6). To meet these future challenges, the Army Vision identifies eight key characteristics that the Army must possess, three of which the GLN would enhance in particular. First, the Army needs to have expertise in areas vital to its global mission. This expertise includes a deep understanding of a broad range of military, regional, and civil topics, as well as increased language, cultural, and socially broadening experiences supplemented by training in interpersonal dynamics and negotiating that will enable soldiers to achieve desired outcomes with governments and indigenous populations (U.S. Army, 2015a, p. 8). Second, the Army needs to sustain and strengthen interoperability with joint, government, and multinational partners. Third, the Army must possess the expeditionary capabilities to rapidly deploy from the United States and sustain operations until U.S. strategic objectives are achieved. Critical to this characteristic is enhanced country access and theater pres-

ence, maintained, in part, by rotational forces, that supports expeditionary operations, shapes regional theaters of operation, promotes interoperability, and shortens response time (U.S. Army, 2015a, p. 10). Strengthening Army relationships with partner countries and increasing Army personnel's opportunities to work partner-country counterparts can increase the Army's regional expertise, strengthen interoperability, and secure theater access.

Understanding the Army's Future Operating Environment: The Army Capstone Concept

The Army Capstone Concept (ACC) is the lead document in the Army Concept Framework, which begins the Army implementation of the joint capability integration and development system process (USAWC, 2015, pp. 10-2–10-3). The ACC describes the Army's anticipated future operational environment, what it must be able to do based on that environment, and the broad capabilities that it will require to accomplish its enduring missions in the near to medium term (TRADOC, 2012, p. 4). Like with the Army Vision, the ACC does not directly reference the GLN. The GLN can, however, be an important enabler of the solutions that the Army proposes for the future strategic problems that the ACC identifies. In particular, the ACC notes that the future Army must be "capable of exerting enduring changes in behaviors of populations" and regionally engaged in order to deter adversaries, reassure allies, and defeat enemies (TRADOC, 2012, p. 11).[4] These capabilities will support the Army's tripartite solution to future operational complexity: Prevent conflict, shape the operational environment, and win the nation's wars (TRADOC, 2012, p. 11). By strengthening the Army's relationships with global and regional partners, the GLN can support prevention by enabling the Army to improve its expeditionary capability through improved knowledge of the areas to which it might be deploying and enhanced interoperability with partners that can deploy quickly with the United States to austere areas. The GLN also can support the prevention requirement that the Army be postured to exert influence and to deter adversaries (TRADOC, 2012, p. 12). The GLN's most significant impact, however, is its support for the Army's capability to shape the operational environment. Indeed, a GLN in some form or another is a prerequisite for this concept. To provide a sustained and stabilizing presence, build partner capacity, support SC activities, and conduct steady-state activities, the Army will need a robust GLN (TRADOC, 2012, pp. 13–14). Similarly, the GLN supports the winning capability by enabling the Army to deploy rapidly and to set the theater of operations (TRADOC, 2012, p. 14).

[4] The ACC emphasizes the importance of the "human dimension" in warfare and notes that the purpose of military action is to change the behavior of critical actors and that affecting this change requires the capability to "influence the perceptions, understanding, and actions of relevant populations and [decision]-makers" (TRADOC, 2012, pp. 15–16).

Enabling the Army's Core Competencies: The Army Operating Concept

The AOC builds on the ACC and describes how the future Army will operate to accomplish campaign objectives and protect U.S. national interests. The AOC identifies the ways to accomplish the ends laid out in the ACC. It guides Army force development by identifying the core and operational competencies that the Army must possess in order to accomplish its missions in support of national policy and objectives. The current version of the AOC lays out how the future Army will prevent conflict, shape the security environment, and win wars as part of a joint force working with multiple partners (TRADOC, 2014b, p. i).

In contrast to the previous two Army strategy documents discussed, the AOC specifically identifies a GLN created by regionally engaged Army forces as being an important enabler of U.S. Army strategy. Although the AOC only briefly mentions the GLN, the GLN is contextually embedded in the way the Army plans to develop its forces to prevent conflict, shape the security environment, and win wars.[5] Indeed, the GLN is an integral part of the AOC and is conceived of as enabling regional engagement, which can result in "early warning, indigenous solutions, and informed campaigns" (TRADOC, 2014b, p. 17). Working with partners is an integral part of this emerging concept of operations, which states that the Army "will provide dominant land power, not just through unilateral operations, but by connecting with its unified action partners, complementing capabilities and resources, adeptly shifting from one region of the world to another, and engaging security forces, governments, and people" (TRADOC, 2014a, p. 11). Regionally aligned forces (RAFs) maintain the GLN by developing relationships with partner land forces, building partner capacity, sharing intelligence, increasing cultural awareness, and conducting bilateral and multilateral military exercises. These positive actions that regionally engaged forces conduct are seen as being essential for reassuring allies, influencing neutrals, and dissuading adversaries (TRADOC, 2014b, pp. iv, 22).

The AOC identifies some core competencies that are critical to the Army's ability to achieve mission success across the range of military operations.[6] The GLN is important for the execution of two of these: shaping the security environment and setting the theater. The AOC defines the shape concept as the combination of "activities that reassure partners, curtail aggression, and influence local perceptions, while establishing conditions that support the employment of Army forces" (TRADOC, 2014b, p. 48). Shaping the environment is central to the GLN concept. To shape the security envi-

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[5] The Army defines *shape the security environment* as "combinations of activities that reassure partners, curtail aggression, and influence local perceptions, while establishing conditions that support the employment of Army forces" (TRADOC, 2014b, p. 48).

The ideas are articulated in TRADOC, 2014b.

[6] A core competency is defined as "those indispensable contributions in terms of capabilities and capacities beyond what other services and defense agencies provide which are fundamental to the Army's ability to maneuver and secure land areas for the Nation" (TRADOC, 2014b, pp. 22, 46).

ronment, the AOC states that the Army will create and maintain the GLN through (1) SOF, which assist partners by helping them develop capabilities for foreign internal defense and regional deterrence; (2) RAFs that develop relationships, strengthen partner land forces, and gain regional cultural awareness; and (3) reserve forces whose civilian skills assist in a range of important activities (TRADOC, 2014b, p. 22). Setting the theater focuses on establishing and maintaining the conditions necessary to retain joint force freedom of action. It relies on forward-deployed and rotational forces to develop, maintain, and operate theater structure (TRADOC, 2014b, p. 23). The GLN can provide important information about the theater to enable expeditionary operations.

The AOC also identifies ten first-order operational capabilities that the future Army must have to conduct the expeditionary maneuver and joint combined arms operations required to support U.S. national objectives in a complex world (TRADOC, 2014b, p. vi):

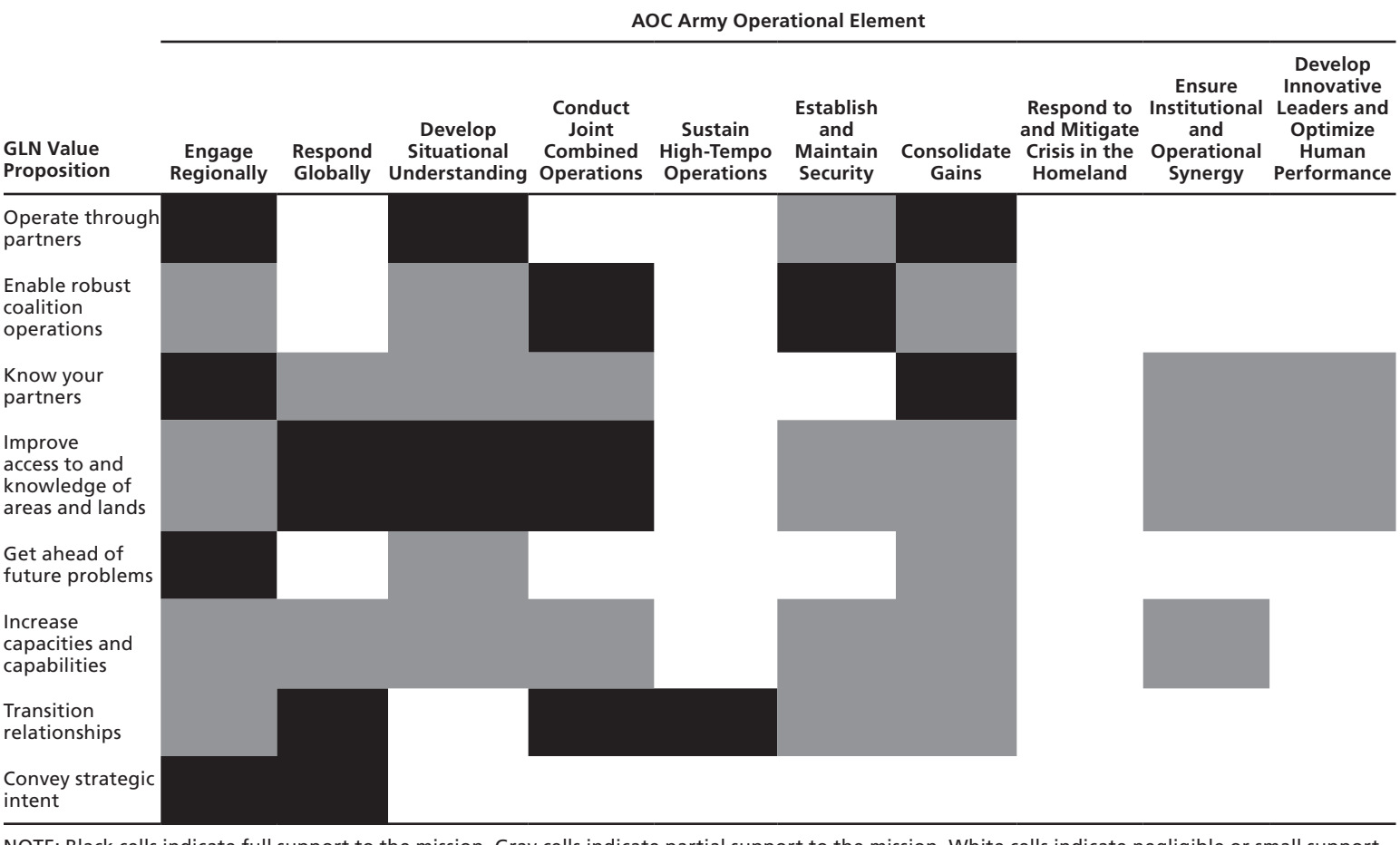
- Engage regionally.
- Respond globally.
- Develop situational understanding.
- Conduct joint combined arms operations.
- Establish and maintain security.
- Consolidate gains.
- Sustain operations.
- Respond to crises in the homeland.
- Ensure institutional and operational synergy.
- Develop leaders and maximize soldier performance.

As we discuss below, the GLN can help the Army strengthen many of these core competencies.

To illustrate how the GLN can contribute to the Army's core operational capabilities, we examined how each of the eight value propositions for the GLN presented in Chapter Two can enable each of the Army operational capabilities identified in the AOC and included in the list above. We found that the GLN can contribute most effectively to strengthening five core Army operational capabilities: Engage regionally, respond globally, develop situational awareness, conduct joint combined operations, and consolidate gains. We expect that the GLN will provide fewer direct benefits for responding to crises in the homeland, enduring institutional and operational synergy, and optimizing human performance.

The relationships between each of the GLN's value propositions and the AOC's operational capabilities are highlighted in the matrix presented in Table 4.1. In this matrix, a black cell means that the benefits stemming from the value proposition strongly support the operational capability. These benefits can have a direct and posi-

Table 4.1
Potential Benefits from the Global Landpower Network for Army Core Operational Capabilities



NOTE: Black cells indicate full support to the mission. Gray cells indicate partial support to the mission. White cells indicate negligible or small support to the mission.

tive effect on the Army's ability to support the operational capability, whereas the absence of the GLN might render these capabilities moot. A gray cell illustrates that the benefits stemming from the value proposition provide partial support to the operational capability, usually as an indirect, rather than direct, effect. Finally, a white cell means that the benefits stemming from the value proposition have only a negligible effect on the operational capability. In these cases, any benefit resulting from the value proposition is largely incidental. Our focus in mapping the GLN's value proposition to the Army's core operational capabilities was twofold. First, we maintained a narrow, operational lens in keeping with the description of each competency, as described in the AOC. Second, we adopted a conservative understanding of the benefits from the GLN, in keeping with the benefits described in Chapter Two. As a result, we might underestimate the benefits accruing from wide-ranging value propositions, such as increasing the Army's capacities and capabilities developed by working with partners.

The following discussion explains the rationale for the coding in Table 4.1. Each Army operational element is cross-walked with the GLN value propositions to explain the assigned impact.

Engage Regionally

The Army engages regionally to ensure interoperability, build relationships, enhance situational awareness, assure partners, and deter adversaries. It is the critical method by which the Army shapes the security environment to mitigate emerging problems before they become serious and to prevent conflict (TRADOC, 2014b, p. 17). This is the operational capability that the Army most strongly identifies with the GLN and that the GLN's value propositions most extensively support. We expect that the GLN can directly help the Army to know its partners better, operate through its partners, convey strategic intent, and get ahead of future problems. We expect the GLN to help the Army indirectly conduct robust coalition operations, understand the areas to which it might deploy, increase its capabilities by working with partners, and transition relationships. Table 4.2 provides a brief explanation of these results.

Respond Globally

The Army's ability to respond globally enables the Army to deter adversaries, respond rapidly to crises, and conduct expeditionary maneuver operations against enemy forces that threaten U.S. interests. Responding globally is supported by forward-positioned and rotational forces that demonstrate U.S. commitment and help set the theater. The integration and synchronization of partner efforts further aid responding globally. This operational capability focuses on the Army's ability to deploy rapidly sufficient forces in support of U.S. strategic objectives (TRADOC, 2014b, pp. 17–18). Three of the GLN value propositions strongly support the Army's expeditionary capabilities, and two partially support it. By enabling the Army to develop stronger relationships with partners, understand the areas to which it might deploy, and convey strategic intent, we expect that the GLN can directly improve the Army's ability to respond globally. Improving

Table 4.2
Global Landpower Network Value Proposition Support for Engaging Regionally

Value Proposition	Reason
Operate through partners	Directly supports finding local solutions to global problems
Enable robust coalition operations	Can have a secondary effect of enhancing partner ability to conduct internal security operations and local operations
Know your partners	Helps inform decisions about how to strengthen them to meet local challenges and increase U.S. knowledge of local problems
Improve access to and knowledge of areas and lands	Informs the Army's understanding of the potential future operating environment, can support improvements to infrastructure that support partner ability to shape environments and prevent conflict, and can help shape deterrence and reassurance activities
Get ahead of future problems	Provides direct support to efforts to shape the operational environment and prevent conflict
Increase capacities and capabilities	Has a secondary effect of helping U.S. Army shape the security environment
Transition relationships	Can have the secondary effect of increasing the U.S. ability to influence partners to take steps to prevent conflict and to increase their capability and capacity to do so
Convey strategic intent	Direct support to deterrence and reassurance

the Army's ability to know its partners better and increase capabilities developed by working with partners can indirectly improve the Army's ability to respond globally. Table 4.3 provides a brief explanation of these results.

Develop Situational Understanding Through Action

As written, the operational capability to develop situational understanding through action is a warfighting activity focused primarily on the tactical or battlefield fight for information. To achieve situational understanding, combined arms units must be able to "fight for understanding and identify opportunities to seize, retain, and exploit the initiative." Operating with multiple partners and developing cross-cultural capabilities that enable combat forces to operate effectively among local populations while in contact with the enemy deepens the Army's situational understanding (TRADOC, 2014b, p. 18). The GLN can support the Army's ability to develop situational understanding through action by developing a baseline understanding of the operational environment and creating relationships that deployed tactical units can later exploit to gain a deeper and more nuanced understanding of the operational environment. We expect that regular activity of operating through partners and improving the Army's understanding of areas and knowledge through the GLN will directly support the Army's ability to develop situational awareness. Similarly, we expect that robust coalition operations, efforts to get ahead of problems, and increasing the Army's capabilities by working

Table 4.3
Global Landpower Network Value Proposition Support for Responding Globally

Value Proposition	Reason
Operate through partners	Has minimal impact on the Army's expeditionary capabilities. Operating through partners can increase the Army's ability to respond globally by substituting partner forces for U.S. forces and by freeing U.S. forces for other deployments.
Enable robust coalition operations	Has minimal impact on the Army's expeditionary capabilities. Coalition operations can increase the Army's operational capacity.
Know your partners	Has an indirect impact on the Army's expeditionary capabilities by providing insights into whether partners will provide access in the future, under what conditions, and the extent to which they will do so.
Improve access to and knowledge of areas and lands	Directly supports deployment of U.S. forces by increasing knowledge of local access infrastructure and logistical support capabilities and constraints
Get ahead of future problems	Has minimal impact on the Army's expeditionary capabilities but can reduce the need for the Army to engage in future expeditionary operations
Increase capacities and capabilities	Increasing capabilities, such as access to partners' planning and intelligence, can indirectly improve the Army's expeditionary capabilities.
Transition relationships	Directly supports increased partner support for the forward deployment of U.S. forces and support for U.S. expeditionary operations
Convey strategic intent	Directly supports the ability of the United States to show resolve and deter adversaries

with partners can indirectly improve the Army's ability to develop situational awareness on the battlefield. Table 4.4 provides a brief explanation of these results.

Conduct Joint Combined Arms Operations

The Army's core capability to conduct joint combined arms operations focuses on the conduct of conventional high-intensity warfare. Because this ability emphasizes tactical combat operations, the GLN tends to support it less directly with the exceptions being the requirement for power projection using "maneuver across strategic distances" and the need to "synchronize the efforts of multiple partners across multiple domains to ensure unity of effort" (TRADOC, 2014b, p. 18).

We expect that enabling robust coalition operations, improving access to and knowledge of areas and lands, and strengthening relationships with regional and global partners willing to join or support combined arms operations through the GLN can directly strengthen the Army's ability to conduct joint combined arms operations. We expect that knowing partners better and increasing Army capabilities developed by working with partners can indirectly strengthen the Army's ability to conduct joint combined arms operations. Table 4.5 provides a brief explanation of these results.

Table 4.4
Global Landpower Network Value Proposition Support for Developing Situational Understanding Through Action

Value Proposition	Reason
Operate through partners	Regular engagement with partners can have the direct effects of increasing the growth of cross-cultural capabilities within the Army and of providing insights into local conditions.
Enable robust coalition operations	Increased intelligence interoperability with expeditionary partners can have the secondary effect of increasing local situational understanding.
Know your partners	Knowledge of one's partners' capabilities, strengths, weaknesses, and biases can have the indirect effect of supporting tactical units' ability to gain situational understanding during combined arms operations.
Improve access to and knowledge of areas and lands	Can have a direct impact on the ability to gather information
Get ahead of future problems	Getting ahead of future problems requires a robust situational understanding. Should such efforts fail, this baseline situational understanding can have an indirect effect of improving tactical units' ability to fight for information.
Increase capacities and capabilities	Learning from partners' capabilities, such as intelligence gathering techniques, could have an indirect effect of improving the ability to gain local situational understanding.
Transition relationships	Broader strategic relationships have limited impact on tactical information gathering during a conflict.
Convey strategic intent	Activating networks to send strategic messages would have a minor impact on the ability to gather information during an operation. The execution of such activities could have the incidental effect of improving situational understanding.

Sustain High-Tempo Operations

The ability to sustain high-tempo operations focuses on the Army's internal capability to sustain combat operations (TRADOC, 2014b, p. 18). Only one GLN value proposition strongly supports this operational capability. We expect that strengthening relationships with regional and global partners could directly strengthen the Army's ability to sustain high-tempo operations. Similarly, we expect that improved knowledge of local sustainment infrastructure (through improved knowledge of the area) can support U.S. units' capability to conduct logistics operations. The remaining value propositions have negligible effects on this ability because of its focus on the Army's internal sustainment capabilities and requirements.

Establish and Maintain Security

The ability to establish and maintain security focuses primarily on tactical combat capabilities. It does, however, include the requirement to integrate Army forces with "partner military, law enforcement, and civil capabilities to establish and maintain security" (TRADOC, 2014b, pp. 18–19). We expect that developing robust coalition

Table 4.5
Global Landpower Network Value Proposition Support for Conducting Joint Combined Arms Operations

Value Proposition	Reason
Operate through partners	Negligible impact because this operational element is focused on winning through direct combat operations with U.S. forces rather than seeking to find local solutions
Enable robust coalition operations	Directly supports this operational element
Know your partners	Can have a secondary effect of improving planning for their integration into combined arms operations
Improve access to and knowledge of areas and lands	Directly improves the ability to deploy forces and supports the planning and execution of combined arms operations
Get ahead of future problems	This is a prevention-oriented value proposition that does not directly affect the ability to conduct tactical combat operations
Increase capacities and capabilities	The improved capability to interact with partners resulting from learning from them has the secondary effect of increasing U.S. ability to conduct multinational combined arms operations.
Transition relationships	Increasing the depth of relations with a partner has the direct effect of supporting interoperability and increasing the chance of partner participation in coalition operations.
Convey strategic intent	Minimal effect because this operational element is about conducting combat operations

operations can directly contribute to integrating Army forces with partners to establish and maintain security. We expect that operating through partners, understanding the area, increasing Army capabilities through working with partners, and building stronger relationships can all indirectly contribute to establishing and maintaining security. Table 4.6 provides a brief explanation of these results.

Consolidate Gains

The ability to consolidate gains focuses on Army support to partners trying to restore order in a postconflict environment (TRADOC, 2014b, p. 19). We expect that two of the GLN value propositions strongly support this operational capability and that five partially support it. Operating through partners and developing knowledge of partners can improve the Army's ability to consolidate gains. Enabling robust coalition operations, strengthening relationships with partners, getting ahead of future problems, increasing Army capabilities through working with partners, and improving knowledge of areas and lands can indirectly improve the Army's ability to consolidate gains. Table 4.7 provides a brief explanation of these results.

Table 4.6
Global Landpower Network Value Proposition Support for Establishing and Maintaining Security

Value Proposition	Reason
Operate through partners	Has the indirect effect of enhancing U.S. efforts to establish local security either unilaterally or with partners
Enable robust coalition operations	Will increase the U.S. Army's overall capacity to establish and maintain security
Know your partners	Has only a marginal effect on the Army's ability to conduct security operations
Improve access to and knowledge of areas and lands	Can support security operations
Get ahead of future problems	This capability is focused on combat operations, not conflict-prevention efforts.
Increase capacities and capabilities	Partner participation in the planning and sharing of intelligence can increase the efficacy of security operations.
Transition relationships	Developing deeper relationships with partners can improve the Army's capability to conduct security operations.
Convey strategic intent	Has only a tangential impact on the establishment of wide-area security during combat operations

Table 4.7
Global Landpower Network Value Proposition Support for Consolidating Gains

Value Proposition	Reason
Operate through partners	Operating through partners is a critical component of this operational element.
Enable robust coalition operations	Strong partners can aid the U.S. Army in consolidating gains.
Know your partners	Knowledge of a partner's capabilities and weaknesses is critical to developing and executing operations intended to strengthen and reform them.
Improve access to and knowledge of areas and lands	Knowledge of local terrain and infrastructure can aid Army efforts to consolidate gains and to support the host nation.
Get ahead of future problems	The ability to mitigate problems before they become significant threats can help the host nation consolidate gains.
Increase capacities and capabilities	Partner involvement in planning and the sharing of intelligence can increase the efficacy of Army efforts to support the host nation.
Transition relationships	Skills developed to transition relationships can support the ability to work with the host nation to consolidate gains.
Convey strategic intent	Conveying strategic intent has only a marginal impact on consolidating gains.

Respond to and Mitigate Crisis in the Homeland

The ability to respond to and mitigate a crisis in the homeland focuses on the Army's ability to respond to crises and threats within the United States (TRADOC, 2014b, p. 19). As a result of this internal focus, the GLN value propositions provide only tangential or indirect support to this operational element. That said, as our discussions with U.S. Army Pacific (USARPAC) highlighted, key partners can play an important role supporting U.S. homeland defense plans. Moreover, U.S. allies, such as NATO partners, are committed to support the United States in the event of a hostile attack, if so requested.

Ensure Institutional and Operational Synergy

The ability to ensure institutional and operational synergy focuses on the institutional Army's ability to support the operational Army, including its ability to conduct building partner capacity and shaping operations (TRADOC, 2014b, p. 20). Because this operational element is focused on internal Army capabilities and is institutional, rather than operational, in nature, most of the GLN's value propositions are tangential to this operational element. However, we expect three of the value propositions to have an indirect effect of improving the institutional Army's ability to support the operational Army. Knowing one's partners and improving access to and knowledge of areas and lands can support the institutional Army's efforts to prepare and train operational units for engagement and activities building partner capacity. Similarly, the exposure to foreign militaries inherent in the value proposition to increase capacities and capabilities has the secondary benefit of improving the institutional Army's ability to prepare personnel for operations with foreign partners.

Develop Innovative Leaders and Optimize Human Performance

The ability to develop innovative leaders and optimize human performance focuses on internal personnel development processes that prepare leaders to operate in complex and uncertain environments. One of the objectives of this capability is to develop leaders with cross-cultural competencies (TRADOC, 2014b, p. 20). As a result, this AOC operational element is important to the development and maintenance of the GLN because it can produce the leaders with critical GLN-related skills and mind-sets. Although the existence of the GLN provides leaders with an opportunity to develop and hone cross-cultural skills, most of the GLN's value propositions are tangential to this internally focused ability. Two value propositions that do support the development of cross-culturally competent leaders are knowing your partners and improving access to and knowledge of areas and lands. These can provide institutional knowledge that Army training and educational institutions can use to prepare current and future Army leaders to support the GLN.

Guiding Future Force Development: The Army Warfighting Challenges

Finally, TRADOC uses the Army Warfighting Challenge (AWFC) methodology to guide future force development and to integrate efforts across warfighting functions. The AWFCs are a set of enduring first-order problems that generate a set of questions, the answers to which will drive the development of the future force, improve its combat effectiveness, and provide the Army with the capabilities necessary to win in a complex world. The capabilities needed to execute the AOC are derived from the AWFCs. The AWFCs are a means to focus TRADOC's analytical efforts and to prioritize outcomes. As of mid-2015, TRADOC had developed 20 AWFCs (TRADOC, 2014b, pp. 31–36; U.S. Army, 2015b). As currently envisioned, the AWFCs are primarily focused on finding tactical and operational solutions that increase the deployability, lethality, mobility, and agility of the Army's brigade combat teams (Army Capabilities Integration Center [ARCIC], 2014, pp. 2, 5). The GLN can be particularly helpful in enabling the Army to address the following AWFCs:

- "Develop and sustain a high degree of situational understanding while operating in complex environments against determined, adaptive enemy organizations" (AWFC 1).
- "Shape and influence security environments, engage key actors, and consolidate gains to achieve sustainable security outcomes" (AWFC 2).
- "Provide security force assistance to support policy goals and increase local, regional, and host nation security force capability, capacity, and effectiveness" (AWFC 3).
- "Assure uninterrupted access to critical communications and information links (satellite communications; position, navigation, and timing; and intelligence, surveillance, and reconnaissance) when operating in a contested, congested, and competitive environment" (AWFC 7).
- "Integrate joint, interorganizational, and multinational partner capabilities and campaigns to ensure unity of effort and accomplish missions across the range of military operations" (AWFC 14).
- "Set the theater, provide strategic agility to the Joint Force, and maintain freedom of movement and action during sustained and high tempo operations at the end of extended lines of communication in austere environments" (AWFC 16).
- "Coordinate and integrate Army and joint, interorganizational, and multinational fires and conduct targeting across all domains to defeat the enemy and preserve freedom of maneuver and action across the range of military operations" (AWFC 17) (TRADOC, 2014b, pp. 31–33).

Engaging with Partners: Doctrine and the Army Functional Concept for Engagement

If the GLN is developed further, it can help support the operational capabilities discussed above and could lead to the development of more and more-specific doctrine describing it. Moving forward, we expect that what the GLN supports and enables will be closely related to DoD and Army concepts about engagement. Engagement currently has two interrelated but distinct conceptual meanings within the Army's doctrinal community. Doctrinally, engagement is focused on military activities and operations that shape a geographic CCMD's AOR to prevent conflict, enable future operations, and advance common security interests. This strategic focus is congruent with the GLN concept. Engagement is also beginning to emerge as a seventh warfighting function. The perceived need for this new warfighting function is derived from the same set of concepts that has led to the emergence of the codification of the GLN concept. Both are products of the emerging strategic landpower concept. The more tactical approach toward engagement enshrined in the idea of a seventh warfighting function would provide the doctrinal, training, educational, and organizational foundations for the development of the soldier skills necessary for strengthening the GLN.

The concept of engagement is not new to either Army or joint doctrine. The 2001 edition of Field Manual 3-0, *Operations*, introduces the concept of peacetime military engagement, which is how combatant commanders shape their AORs. In 2001, peacetime military engagement was defined as "all military activities that involve other nations and are intended to shape the security environment in peacetime" (HQDA, 2001, p. 9-2). These activities, conducted in support of a combatant commander's theater engagement plan (TEP), included programs and exercises that the U.S. military conducts with other nations to shape the international environment, improve mutual understanding with other countries, and improve interoperability with allies and potential partners. The primary means of executing peacetime military engagement was identified as being *reciprocal* military-to-military contacts that benefited *all* of the involved partners. Furthermore, peacetime military engagement activities were seen as cooperative actions that promoted regional stability and, if successful, would preclude the need for U.S. forces to undertake coercive actions (HQDA, 2001, pp. 9-2–9-3).[7]

[7] The 2001 version of JP 3-0, *Doctrine for Joint Operations*, mentions peacetime military engagement only in passing in the context of a brief discussion of a combatant commander's TEP. The TEPs are discussed in a brief paragraph. The single reference to peacetime military engagement consists of the following sentence: "The TEP identifies the prioritization and integration and synchronization of peacetime military engagement activities on a regional basis and illustrates the efficiencies gained from regional combatant command engagement activities that support national strategic objectives" (JCS, 2001, p. I-5).

The concept of military engagement entered joint doctrine in the 2006 edition of JP 3-0 when it was defined as the

> routine contact and interaction between individuals or elements of the Armed Forces of the United States and those of another nation's armed forces, or foreign and domestic civilian authorities or agencies to build trust and confidence, share information, coordinate mutual activities, and maintain influence. (JCS, 2006, p. GL-22)

This definition remains current a decade later.[8] Military engagement includes operations and activities intended to shape the operational environment, keep tensions below the threshold of war, and maintain U.S. global influence. These activities occur continuously in each geographic CCMD's AOR and encompass the use of the military instrument of national power to support other U.S. government agencies and to cooperate with international government organizations and nations to "protect national security interests, deter conflict, and set the conditions for future contingency operations" (JCS, 2011, p. V-9). This conception of engagement is reflected in the AOC's emphasis on the need for the Army to have the operational capability to engage regionally.

As the above discussion illustrates, the current ACC's and AOC's emphasis on preventing conflict and shaping the operational environment builds on an existing doctrinal foundation. In particular, the idea of engagement as an important strategic enabler has existed for a decade or more. In addition, the current joint definition of military engagement is congruent with the activities and goals of the GLN as defined earlier in this study. Whether the U.S. military has yet built the intellectual and institutional scaffolding to support these doctrinal concepts remains unclear. Strengthening the GLN, however, could contribute to the success of the strategic and operational engagement activities envisioned as being an important component of joint operations.

Given recent operational experience in Iraq, Afghanistan, and elsewhere, the Army is establishing engagement as the seventh warfighting function (Lenart, 2013; Sheftick, 2014).[9] The engagement warfighting function is "the related tasks and systems that influence the behaviors of a people, security forces, and governments," and TRADOC defines engagement as the "routine contact and interaction between U.S. Army forces and with unified action partners that build trust and confidence, share information, coordinate mutual activities, and maintain influence" (TRADOC, 2014a, p. 5). In February 2014, TRADOC published *The U.S. Army Functional Con-*

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[8] The current edition of JP 3-0 was published in 2011. The February 2016 *Department of Defense Dictionary of Military and Associated Terms* retains the 2006 definition of *military engagement*.

[9] A warfighting function is "a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives" (HQDA, 2012a, p. GL-7). There are currently six warfighting functions (mission command, movement and maneuver, intelligence, fires, sustainment, and protection) that commanders use to apply combat power in order to execute combined arms operations (HQDA, 2012a, pp. 1-9, 3-1).

cept for Engagement, which describes the broader capabilities that the Army will need to enable engagement and to elevate it to the status of a seventh warfighting function. It was the realization that the human aspect of conflict was central to success in the land domain that led to the need for a warfighting function that would "capture the tasks and systems that provide lethal and nonlethal capabilities to assess, shape, deter, and influence the decisions and behavior of its security forces, government, and people" (TRADOC, 2014a, p. 7). The intent of the functional concept is to drive capability development across the doctrine, organization, training, materiel, leadership and education, personnel, facility, and policy domains that will enable the Army to conduct engagement activities (TRADOC, 2014a, p. 1).

The engagement warfighting function does not describe, nor does it constitute the entirety of, the GLN. Conceptually, engagement includes many of the activities that constitute the "edges" of the GLN and, in executing those functions, formulate the de facto network in which the Army would be operating. The GLN is the overarching network of relationships that exists as a result of, and sometimes in advance of, exercising the engagement warfighting function. It is the result not only of the primary and associated effects of military actions on relationships but all relationships (e.g., political, military, economic) that might have a bearing on how the military plans, prepares, and exercises its use of the Army warfighting functions. Importantly, the GLN builds on the trust that develops between partners over time. As ADM William H. McRaven famously remarked when discussing SOF's focus on building partnerships, "you can't surge trust" (Trulio, 2012). An Army that has internalized an engagement warfighting function would strengthen these characteristics of the GLN, however. The engagement functional concept is a first step in this process of institutionalizing the importance of engagement into Army culture.

Conclusion

In recent years, U.S. and Army strategy, as well as emerging Army operational concepts, have consistently highlighted the importance of a network of relationships and partnerships to help secure U.S. security objectives. Engaging with partners to shape the security environment and prevent local security problems from metastasizing into larger threats draws heavily on the Army capabilities that the GLN strengthens. As such, the GLN concept emerges clearly as a strategy to support core Army capabilities delineated in Army doctrine and addresses key Army warfighting challenges.

The Army will want to know how the GLN supports specific operations and how it plausibly leads to better outcomes. To realize the benefits the GLN can provide, the Army's emerging GLN concept will need to be institutionalized within the Army (and elsewhere among the ground forces). Given the importance of the AWFCs for guiding future force development and integrating efforts across warfighting functions, they

provide a good mechanism for identifying opportunities for the GLN to enable Army capabilities. We expect that TRADOC will be the best command to develop and integrate the GLN concept within Army doctrine.

CHAPTER FIVE

Components of the Global Landpower Network

The GLN consists of networks of partners created through the nodes and edges connecting Army personnel and organizations to their counterparts in partner countries. The GLN concept encompasses a whole-of-Army approach to working with partners, in which different parts of the Army, ranging from logistics to strategy, are involved in and benefit from the Army's engagement with its partners. And because the GLN concept connects so closely with many of the Army's core operational capabilities, the institutionalization of the GLN concept has an impact across the entire Army. That said, there are several Army institutions, organizations, programs, and personnel, many of whom have been involved with engagement, who are particularly important for strengthening the GLN.

This chapter lays out several pieces of this institutionalization. First, we describe the key nodes that define the GLN and the skills and personnel underpinning those nodes. Second, we describe the institutional organizations that would be responsible for developing and maintaining the GLN, along with some of the key programs underpinning future GLN activities. Finally, we conclude with several recommendations for the development of each.

Key Nodes in the Global Landpower Network

GLN nodes constitute the organizations and personnel having relationships with foreign partners. Those relationships are formed through specific activities, such as those associated with engagement, as well as through broader policies and agreements, such as mutual defense treaties and memoranda of understanding defining working relationships. The nodes, therefore, are a diverse set of entities, from units to operational HQ or even senior-level people. The nodes are often involved with the planning, coordination, or information-gathering and assessing activities required to execute theater-specific strategies.

Nodes deeply or continuously involved with engagement will tend to have personnel with more training and experience in language and culture for that region. GLN nodes help establish and maintain individual and organizational relationships

with partners. Examples of GLN nodes are the theater armies (and SC offices within), embassy country teams, and National Guard State Partnership Program (SPP) units.

GLN nodes need not be persistently engaged but can be involved in intermittent, temporary, and short-term relationships with partners. Some U.S. Army units might intermittently engage with foreign units during training exercises or as part of SC activities. Although the individual effects of a transient node might be limited, nodes' cumulative effects might be much greater: Individual engagement activities play an important role in ASCCs' campaign support plans.

In the rest of this section, we describe several important GLN nodes. We highlight the Army nodes and some select other nodes (such as country teams and international HQ) because of their proximity to the Army nodes.

Theater Army

A theater army is the dedicated ASCC for one of the U.S. military's six geographic CCMDs—to maintain common usage with personnel throughout the Army and at the theater armies, we refer to these through the study as *ASCCs*.[1] It serves as the primary interface between the GCC and the Department of the Army and is responsible for the administration and support of all Army forces assigned, attached, or under the operational control of the geographic CCMD. The Army integrates and synchronizes its SC planning by, with, and through the theater armies both internally (within the Army) and externally (with U.S. embassy country teams and partners) (HQDA, 2014e, pp. 2–4).

Several organizations within or subordinate to the ASCCs are critical to the GLN, including

- the *SC section* in the ASCC's movement and maneuver functional cell, which plans, coordinates, and provides staff supervision over all international engagement and SC activities, including exercises and training. The section relies on foreign-area officers (FAOs) and the more-numerous Department of the Army foreign affairs and strategic planning (career program 60) personnel for its language, regional expertise, and culture (LREC) support.[2]
- the *theater sustainment command*, which maintains and operates the theater logistics networks that support forward presence and enables power projection

[1] Only two ASCCs are forward deployed (USAREUR and U.S. Army Africa [USARAF]); of these, only one (USAREUR) is located within its AOR with organic subordinate forward-deployed units. USARPAC is located in U.S. Pacific Command but based on U.S. soil in Hawaii approximately 3,500 miles from the nearest major U.S. partner (Japan) in the Pacific region. USARAF is located in Europe; U.S. Army South (ARSOUTH) and U.S. Army North (ARNORTH) are in Texas.

[2] The majority of the personnel serving in the SC sections appear to be civilian career program 60s (U.S. Army G-3/5/7 Strategic Leadership Division, undated).

- the *theater military intelligence brigade*, which is an important source of regional situational awareness (HQDA, 2014g, p. 5-5)
- the *civil affairs command or its regionally focused civil affairs battalion*, which plans and conducts civil military operations (HQDA, 2014c, p. 3-7).

U.S. Embassy Country Team

The U.S. embassy country team, a State Department organization, is the principal means by which an ambassador organizes his or her staff to function as a coordinated and cooperative team in pursuit of U.S. national interests (Defense Institute of Security Assistance Management [DISAM], 2015, p. 4-4). The senior defense official and defense attaché (DATT) leads the DoD members of the country team, the security cooperation office (SCO), and the defense attaché office (DAO), which are the focal point of SC country planning in support of the GCC's theater campaign plan (HQDA, 2013a, pp. 2-19, 3-22). The country team is also often the focal point of the U.S. military's primary interactions with a foreign partner and the main source of information about a partner's security capabilities, requirements, and interests.

The SCO is permanently located within a host nation and is responsible for carrying out DoD SC management functions with the host nation.[3] It serves as the primary interface with the host nation on all security assistance and SC issues and is generally the lead organization within the CCMD for facilitating most DoD SC programs in the host nation (DISAM, 2015, p. 4-1). Critical to the SCO mission is the development of personnel relationships with host-nation counterparts (DISAM, 2015, p. 4-1). One of the principal roles of the SCO is to build, improve, and maintain host-nation relationships. This task involves meeting with the chiefs of host-nation military and security forces, trying to gain an appreciation of the host nation's perspectives on its capabilities and capability gaps, informing the host nation of the U.S. foreign military sales process and building partner capacity programs, and analyzing the host nation's role and ability to fit into U.S. strategy (DISAM, 2015, p. 4-10). The SCO often executes the SC elements of the CCMD's theater campaign plan and helps shape the GCC's country plan (DISAM, 2015, pp. 4-9, 4-13). Army personnel, almost always FAOs, serving in a SCO generally have two- to three-year tours that provide them an opportunity to build regional expertise and to develop lasting relationships with host-nation military personnel (HQDA, 2014h, p. 281).

Personnel assigned to the DAO have duties broadly similar to those in the SCO with the addition that they are tasked with openly collecting and reporting military information (HQDA, 2006, p. 3). The DAO's primary functions are to overtly gather military information, represent DoD in the conduct of military liaison activities, and serve as a component of the country team (HQDA, 2015c, p. 86). The DAO serves the

[3] The size of a SCO is capped at six members of the U.S. armed services. Congressional approval is required to exceed this cap (Office of the Under Secretary of Defense for Policy, 2008, p. 10; JCS, 2010, p. III-13).

ambassador but also coordinates with and represents the military departments on service matters. Finally, DATTs provide information to the GCCs about the host nation's military, social, economic, and political conditions (JCS, 2010, pp. III-10, III-13).

International Headquarters

U.S. Army personnel are regularly assigned to both permanent international HQ and temporary combined operational HQ. Permanent international HQ include such organizations as the various NATO HQ and the combined forces command HQ that are created to support permanent and formal alliances. Combined operational HQ include such organizations as Multi-National Force—Iraq, NATO Training Mission for Afghanistan, and the International Security Assistance Force. These HQs are not intended to be permanent and provide command and control to combined military operations. The importance of international HQ to the creation and maintenance of the GLN is that they maximize the potential for military personnel to form important, enduring, and meaningful personal relationships. Generally, such HQ will involve personnel sharing a common work or operational experience for an extended period of time and allowing for substantive one-on-one interactions in pursuit of shared goals. In addition, over time, a large number of U.S. Army personnel will have served in one or another of these HQs and thus been exposed to and socialized in the importance of international partners and the GLN. The permanent international HQs are also important because they formalize and routinize interactions with partner countries and thus maintain and potentially strengthen the GLN.

Regionally Aligned Forces

The AOC identifies RAFs as important enablers of the GLN. RAFs are important because they can develop relationships with and strengthen partner land forces, share intelligence, increase cultural awareness, and conduct bilateral and military exercises (TRADOC, 2014b, p. 22). The Army's definition of RAF is quite broad: "those Army units assigned to combatant commands, allocated to a combatant command, and those capabilities service retained, combatant command aligned, and prepared by the Army for combatant command missions" (TRADOC, 2014b, p. 47). We earlier identified the theater armies and some of their major component commands—in particular, the theater sustainment commands—as being key GLN nodes because of their habitual relationships with theaters, their role in planning engagement activities, and their ability to sustain the GLN. Much of the rest of the RAF—in particular, the service-retained, combatant command–aligned (SRCA) capabilities and units—although important for the execution of engagement activities, are less relevant to building and maintaining the GLN through persistent relationships. SRCA capabilities, generally brigade combat teams, and corps, division, and functional and multifunctional HQs are currently not habitually aligned with regions. Instead, they are aligned with CCMDs for about two years (ARCIC, undated). In addition, the RAF

concept focuses on units and not personnel, and currently no mechanism exists for ensuring that SRCA units are staffed with personnel who have regional knowledge or experience. However, these forces do give GCCs a degree of mission stability in knowing what forces are available to conduct engagement activities and provide a framework for identifying the LREC training requirements for units that execute those engagement activities (ARCIC, undated).

National Guard State Partnership Units

The SPP is executed through the National Guard Bureau, which pairs state National Guard units with the armed forces in one or more foreign partner countries with the goal of establishing an enduring, long-term, mutually beneficial relationship. The SPP grew out of the former Joint Contact Team Program, which had sought to establish professional contacts between U.S. military personnel and the militaries of the newly independent nations of the former Soviet Union. The guard was integrated into the program, and the first SPP partnerships were launched in 1993 on the belief that Russia would find the guard to be a less threatening presence than full-time active-duty personnel. Currently, 54 U.S. states and territories are linked to 76 foreign nations as part of the SPP (National Guard Bureau, 2015, slides 4, 6). Guard units, as part of the SPP, conduct upward of 700 engagements with their foreign partners per year.[4]

Guard members tend to remain in the same state and thus work with the same partner country for a significantly longer period of time than would be afforded to the more-mobile active service members. This enables the creation and maintenance of significant relationships and personnel able to better understand the capabilities, military culture, organization, requirements, and key stakeholders and decisionmakers of their military partners.

Skills and Personnel

These nodes above are underpinned and, at times, represented by people with LREC skills engaged in specific activities that connect them with foreign entities. LREC skills vary widely across the Army, from limited training for general-purpose forces as part of an upcoming deployment to significant investments of time for certain key careers, such as FAOs, strategists, and intelligence personnel.

In general, the LREC skills conducive to the development and sustainment of the GLN remain a niche capability within the U.S. Army in that they are difficult to acquire and maintain. Acquiring basic language skills through the military education system, depending on the complexity of the language, can take between 26 and

[4] In FY 2013, the National Guard conducted 739 SC events with partners in all six geographic CCMDs (National Guard Bureau, 2014, p. 4).

64 weeks of intensive training (classroom instructions for six hours per day, five days per week). The goal of this training is to give the student at least a limited working proficiency in reading and writing and a high elementary proficiency in speaking.[5] Full LREC capabilities can take two to five years of training and experience to acquire (JCS, 2013, p. J-6). Initial training for a FAO, the Army's primary LREC expert, takes between 34 and 42 months, depending on the language chosen (HQDA, 2014h, p. 281). LREC proficiency is thus costly to attain and maintain.

Currently, LREC skills are not widespread throughout the Army. In FY 2014, an average of 5,762 officers (5.5 percent of total) and 17,528 enlisted soldiers (4.0 percent) received foreign language proficiency pay.[6] Language requirements generally exist for military intelligence, FAOs, and linguists. Special forces, civil affairs, and military information support operations personnel also have language proficiency requirements but at a lower proficiency level than other billets.[7]

Predeployment LREC training also appears to remain limited. A 2010 survey of DoD personnel with deployment experience as part of OIF or Operation Enduring Freedom showed that the majority (62 percent) received some form of LREC training.[8] Most of this training, however, was relatively brief, with 80 percent of deploying personnel receiving eight hours or less of predeployment LREC training and only 5 percent receiving more than 40 hours. In addition, personnel from within the deployer's unit provided most training (DeCamp et al., 2012, p. 21). This, in turn, requires leadership buy-in into the importance of LREC skills and ensuring that these perceptions are part of service culture (DeCamp et al., 2012, pp. 14–15).

This last observation might be especially important for the GLN; it is unclear how widespread and how deep LREC knowledge needs to be to support and sustain the GLN. In addition to the core GLN nodes, the GLN will rely on a service culture that values and understands the importance of engagement. Officers at all levels should understand the importance of and have the skills and mind-sets to reach out to their foreign counterparts in order to build and sustain meaningful relationships. In addition, senior personnel will need to understand and value that the LREC experts' contributions have for their staff.

The personnel underpinning the network come from Army career fields and occupational specialties that offer opportunities and skills to engage with partner coun-

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[5] Minimum graduation requirements for the Defense Language Institute Foreign Language Center's basic program is a score of L2/R2/S1+ on the Defense Language Proficiency Test (Defense Language Institute Foreign Language Center, undated).

[6] Figures are for average strength. See HQDA, 2015b.

[7] Special forces, civil affairs, and military information support operations personnel are eligible for foreign language proficiency pay with an elementary proficiency rating of 1/1.

[8] Twenty-eight percent of the deployers reported receiving language training, 51 percent received regional training, and 60 percent received cultural training (DeCamp et al., 2012, p. 21).

tries' ground forces. Two are particularly relied on for engaging partners: FAOs and strategists.

Foreign-Area Officers

FAOs are the Army's LREC experts and are a critical component of the Army's ability to plan and execute engagement activities.[9] The Army identifies the FAOs as being its "SC professionals" and notes that they are central to the shaping component of the Army's "prevent, shape, and win" strategy (HQDA, 2014h, p. 277). The FAO career field is one of the few in the Army with true regional specialization, and it is also one of the only dedicated to relationship-building and persistent contact with foreign partners. FAOs achieve regional specialization through training and career assignments and cultivate this knowledge throughout their careers. Beyond language and regional skills, the FAO develops the following GLN-related unique knowledge:

- an in-depth knowledge of foreign cultures derived from graduate-level education and the experience of living and working in a specific region
- an expert knowledge of regional military forces
- a deep understanding of U.S. foreign policy and regional SC efforts
- an expertise in the political–military, economic, and social issues of their focus areas
- a deep understanding of interagency and nongovernmental organizations' capabilities and institutional cultures (HQDA, 2014h, p. 277).

FAOs are an important part of the GLN because they serve in important GLN billets (e.g., DATT, SCO, country desk officers) and are critical to the successful building, strengthening, and maintaining of enduring relationships with foreign and interagency partners. As of 2015, the U.S. Army had some 1,275 FAOs.[10]

Strategists

Given the importance of engagement activities in U.S. national security guidance, strategists also have an important role to play in the GLN. As with FAOs, the Army identifies strategists as a key SC specialty and as being particularly important for its ability to plan engagement activities (HQDA, 2015c, p. 6). Strategists are generally field grade officers (O-4s or higher) who have the specialized training, education, and experience to lead multidisciplinary groups and facilitate senior-leader decisionmaking by assessing, developing, and articulating policy, strategy, and plans at the national and theater levels. They leverage their skills to help execute the commander's vision by leading planning efforts and allowing senior leaders to make fully informed decisions

[9] FAOs are identified as a "key specialty" to effectively conduct SC activities (HQDA, 2015c, p. 6).

[10] U.S. Army G-3/5/7 Strategic Leadership Division personnel, conversation with the authors, July 16, 2015.

(HQDA, 2014h, p. 284). Strategists are not regional experts, but they have skills that can help commanders develop plans that build and sustain the GLN. Among these unique skills are

- advanced education in such strategy-related fields as history, political science, international relations, foreign policy, geography, and area studies
- expertise in building multidisciplinary, joint, and coalition planning teams and leading through influence and persuasion
- understanding how to integrate Army capabilities with others, including foreign governmental partners
- recognizing the organizational dynamic, structure, doctrine, and operating environment of Army partners, including U.S. allies and foreign partners
- a broad understanding of the procedures and processes for resourcing DoD and for developing national security and military strategy
- the ability to organize and lead multidisciplinary, joint, and coalition planning teams (HQDA, 2014h, pp. 285–286).

Although the FAO career field is the most critical for the development and maintenance of the GLN, with strategist being important SC enablers, other career fields also have important GLN roles. These career fields include military intelligence and civil affairs. This includes strategic intelligence (functional area 34) officers who might have developed regional expertise and who are tasked with developing the intelligence required develop national security policy and theater-strategic plans and operations (HQDA, 2014h, p. 273). It also includes other military intelligence personnel who might have developed regional and language expertise over the course of their careers, which helps facilitate the development of theater campaign plans and the planning and execution of engagement activities. Civil affairs personnel, for their part, routinely interact with partner and host-nation personnel. Civil affairs personnel might also have the area knowledge, linguistic skills, and cultural awareness required to help commanders plan and execute engagement activities. In addition, they are trained to interact effectively with civilian representatives of foreign and indigenous populations and institutions located in the operational area and to assess how civil factors might help, hinder, or affect U.S. and coalition military operations (HQDA, 2014h, pp. 188–189). The Army also recognizes civil affairs personnel as being critical to the planning and execution of SC activities (HQDA, 2015c, p. 6). In addition, although they are not career fields, some command and staff billets are important for the GLN. These include command and staff positions, particularly planning positions, in the theater armies and other HQs important to the GLN. Selecting and preparing people for these positions will be important because they have a key role in developing and executing the GLN.

Institutional Governance

Several institutional organizations are involved with the GLN. They serve as oversight for how the Army engages foreign partners and as those responsible for the programs and activities that underpin those engagements. The Army's institutional organizations are those dedicated to the creation and sustainment of the GLN or that have a critical role in enabling the development of enduring interpersonal relationships.

GLN-related programs are a primary component of their organizational mission. The Army is connected in multiple ways to its partners abroad. Treaties and agreements, such as NATO or various memoranda of understanding,[11] provide the top-down directives to work with partners, while specific programs and activities provide opportunities for partners to form relationships. Key programs are those SC and other programs that involve persistent and long-term engagements that can be used to foster the development of enduring relationships and partnerships. Several programs, described in the rest of this section, are particularly important to the GLN.

The expansion and maintenance will primarily be the responsibility of a small set of Army organizations, personnel, and programs that run current programs focused on engagement or are persistently engaged with partner countries. These organizations include the HQDA Office of the Army Deputy Chief of Staff (DCS) for Operations and Plans (G-3/5/7) and TRADOC.

Headquarters, Department of the Army, Office of the Army Deputy Chief of Staff for Operations and Plans

HQDA G-3/5/7 is important to the GLN because of its role in formulating and executing the SC programs of the institutional Army. HQDA G-3/5/7 shapes U.S. Army SC policy, manages most Army SC programs, and is the proponent for the FAO functional area. It develops, coordinates, and publishes the Army Campaign Support Plan and serves as the principal adviser to the Army Chief of Staff on the politico-military aspects of international affairs (HQDA, 2013b, p. 5). These Army SC programs include the following (HQDA, 2015c):

- American, British, Canadian, Australian, and New Zealand Armies Program
- army-to-army staff talks
- U.S. Army Command and General Staff College (CGSC) interagency fellowship program
- Conference of American Armies
- Conference of European Armies for Noncommissioned Officers (NCOs)
- International Fellows Program of USAWC

[11] For example, the U.S. Army Chief of Staff signed a memorandum of understanding with the chief of general staff in the United Kingdom (UK) in March 2013 to work together to be able to bring the UK 16th Air Assault Brigade into the U.S. Army's 82nd Airborne Division for combined operations. See Tan, 2015b.

- NATO Military Committee Land Standardization Board
- U.S. Army Military Personnel Exchange Program (MPEP)
- U.S. Army Schools of Other Nations (SON) Program
- U.S. Army Sergeants Major Academy Fellowship Program.

G-3/5/7, as proponent for the FAO career field, is responsible for coordinating the development of Army FAOs (HQDA, 2014h, p. 9). G-3/5/7 manages two SC programs (FAOs in-country training and the SON Program) that are critical for the development of fully trained FAOs.[12]

Military Exchange Programs

Exchange programs allow U.S. personnel and their foreign counterparts to work within each other's organizations for an extended period of time. Although the Army participates in several exchange programs, the most relevant to the GLN is the MPEP, which G-3/5/7 has general HQDA staff responsibilities to run. Exchange personnel are assigned to duty positions that already exist within authorized manpower requirements for tours of duty lasting between 12 and 36 months (HQDA, 2011). The persistent day-to-day interactions provide the opportunity for U.S. officers to develop meaningful and lasting relationships with their foreign counterparts and to broaden their regional and cultural understanding. As of 2015, the U.S. Army had 109 personnel working abroad and had received 132 from partners. The exchanges included 15 countries (U.S. Army G-3/5/7 Strategic Leadership Division, undated, slide 14).

U.S. Army Training and Doctrine Command

TRADOC's mission is to recruit, train, and educate U.S. soldiers; develop leaders; support training in units; develop doctrine; establish standards; and build the future Army (HQDA, 2007, p. 3). TRADOC is a key GLN node for two primary reasons: It educates and develops Army leaders, and it provides educational opportunities for personnel from partner countries to develop meaningful relationships with U.S. officers.

TRADOC has the ability to instill and understanding of the importance of partner engagement for the spectrum of Army operations in current and future U.S. Army leaders. TRADOC is also responsible for providing Army personnel with the skill sets required to build and sustain the GLN. TRADOC is the key institution that produces soldiers who understand the importance of engagement and who have the skills required to sustain and expand the GLN.

TRADOC is also responsible for developing the Army concepts that guide Army force and capability development. In this role, TRADOC would ensure that the future Army can sustain, maintain, and execute the GLN concept. All of these roles are important for the internal development of Army capabilities that support the GLN.

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[12] Roughly 30 officers each year participate in the highly selective SON Program, with preference being given to FAOs (HQDA, 2014h, p. 30).

TRADOC runs several educational institutions that bring foreign leaders to the United States (and vice versa) to share in common education. This includes USAWC, CGSC, and the Sergeants Major Academy, where current and future leaders from partner-country armies receive PME (additional description of these programs is below). At these institutions, foreign army leaders have an opportunity to continuously engage with their U.S. counterparts for an extended period of time and to share a common professional experience. This common experience provides an opportunity for, but does not guarantee that, U.S. and foreign personnel to develop deep and lasting ties. These ties can later be used to sustain, maintain, and execute the GLN. To support the GLN in the future, TRADOC could consider examining its educational programs to look for opportunities to maximize the interactions that lead to sustained personnel ties.

Professional Military Education

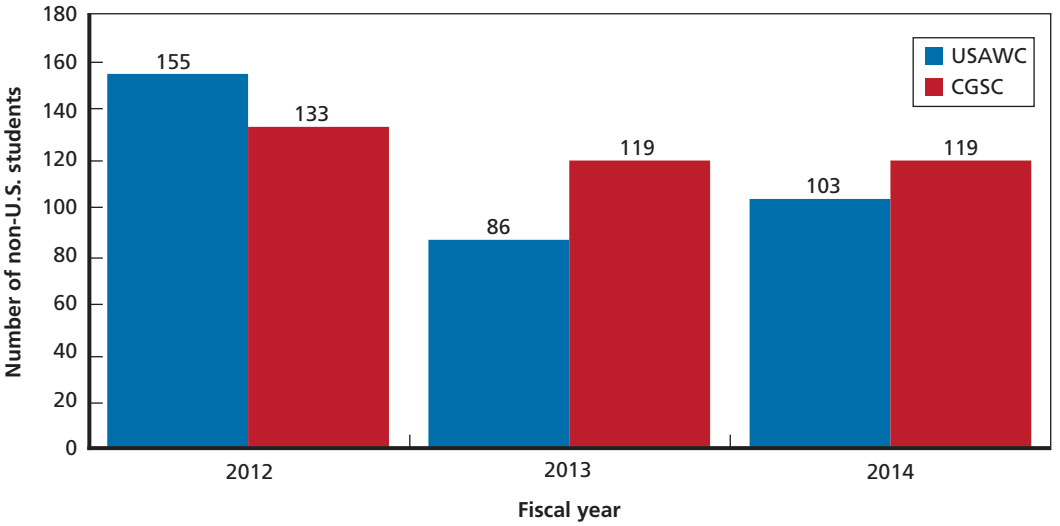
The Army has three international fellows programs that invite foreign military leaders to the United States for PME: International Fellows Program of USAWC, CGSC interagency fellowship program, and the U.S. Army Sergeants Major Academy Fellowship Program.

Through the International Fellows Program of USAWC, the Chief of Staff of the Army invites foreign officers with the grade of lieutenant colonel or colonel to participate in a 40-week course of senior-level PME covering the global application of landpower; military strategy, plans, and operations; theater-level warfare and campaign planning; and command, leadership, and management (HQDA, 2015c, p. 38; USAWC, undated; USAWC, 2015, p. 14-24). In recent years, between 86 and 155 foreign officers have attended USAWC each year (see Figure 5.1). This represents between 12 and 14 percent of USAWC's workload during that period.

The CGSC fellowship program invites foreign officers (primarily majors) to attend the Command and General Staff Officers' Course and the School of Advanced Military Studies (SAMS). The Command and General Staff Officers' Course provides intermediate-level education (ILE) to U.S. Army majors, while the SAMS provides advanced education to select ILE graduates (USAWC, 2015, p. 14-24). The ILE and SAMS courses last approximately ten months. In recent years, between 119 and 133 international students have attended CGSC (see Figure 5.1), with most students attending the ILE. This represented between 5.5 percent and 6.5 percent of the CGSC workload during that period. Only a small number (19) attended the SAMS course (CGSC, 2016, p. 8-1). Seats at the CGSC courses are requested by the GCCs with ASCC input and are allocated by DCS, G-3/5/7, based on the Army SC plan (HQDA, 2015c, p. 39).

The U.S. Army Sergeants Major Academy Fellowship Program invites foreign master sergeants and sergeant major equivalents to attend courses at the U.S. Army Sergeants Major Academy. The Sergeants Major Course lasts about 41 weeks. About

Figure 5.1
Foreign Officers at the U.S. Army War College and Command and General Staff College



SOURCES: HQDA, 2013c, pp. 324, 326; HQDA, 2014b, pp. 350, 352; HQDA, 2015a, pp. 360, 362.
RAND *RR1813-5.1*

50 seats at the academy are made available each year to foreign students. Seats are requested by the GCCs based on ASCC input and allocated by DCS, G-3/5/7, based on the Army SC plan (HQDA, 2015c, p. 40).

The Army and TRADOC provide other training and education to foreign military students that is important for achieving U.S. security goals—for example, the USMA maintains a series of programs that deploy U.S. cadets globally and that bring foreign cadets to the United States. We focused on the programs above given their perceived importance both within TRADOC and by ASCC personnel for building interpersonal relationships with partners.

The three previous programs focus on bringing foreign officers to U.S. Army educational institutions. In contrast, the SON program sends U.S. officers abroad for their PME. The SON program seeks to develop closer U.S. Army relationships with foreign armies by having U.S. Army officers complete their ILE or senior service college education at foreign military staff or senior service colleges. This schooling can be a critical component of FAO professional development, increase U.S. Army presence in a partner country, and influence future partner-country military leaders through prolonged contact with U.S. officers (HQDA, 2014d, p. 78; HQDA, 2015c, p. 32). In 2015, 36 U.S. officers attended schools in 23 different countries.[13] To maximize the SC benefits to the U.S. Army, after participating in the SON program, the officer is gen-

[13] Ten officers were attending senior service colleges, 23 officers were attending ILE institutions, and three officers were receiving postcommissioning education. The majority of these personnel were attending institu-

erally assigned to a 24-month utilization tour at the brigade, division, corps, ASCC, or geographic CCMD (joint) level in support of the AOR where that officer attended school. They might also be assigned to the RAF element slated for operations in support of the AOR where they attended school (HQDA, 2014d, p. 79).

U.S. Army Training and Doctrine Command Liaison Officer Program

TRADOC also has a liaison program to "engage directly with host nation TRADOC equivalent staffs in order to advance interoperability and develop institutional capabilities of key partners" (U.S. Army G-3/5/7 Strategic Leadership Division, undated, slide 16). These institutional liaisons are not officer exchanges as per above, but rather allow for the person to both gather and provide information to help each receiving nation better understand its partner.

Conclusion

Engagement is a new warfighting function, with subsequent cultural and operational development under way. The GLN concept furthers that engagement, with loftier goals (Chapter Two) that, if realized, would have broad implications to the force. Getting the institution to support such endeavors will be important, and this chapter briefly described the key GLN nodes, institutions, and personnel likely involved.

Existing programs provide opportunities for the U.S. Army to engage with partners. The programs are a small part of what the Army does and what Army personnel see. The programs mentioned in this chapter include opportunities for several dozen exchange officers, liaisons, and operational and institutional positions that touch other partners. The programs for engagement tend to be partner army–specific but could be expanded to other landpower as necessary. The nature of the programs is important, so we interviewed each ASCC on its views of how well current programs fit within the GLN concept; the results of these interviews are provided in Chapter Six. In general, the programs provide good representation for how the Army might engage, albeit at a low level of effort.

In terms of personnel, there is a general view that U.S. Army engagement falls exclusively on select groups—chiefly, FAOs and selected strategists. These groups have regional expertise and are effective at building relationships. However, given the broad scope of the GLN within Army core competencies (Chapter Four), relying solely on FAOs and strategists is too narrow and a broader set of participants will be needed. We look more deeply into personnel in Chapter Seven.

The current Army infrastructure supporting the GLN is relatively small vis-à-vis the entire Army enterprise, though it also appears relatively flexible if new objectives

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tions in USAREUR (17) or USARPAC (ten) AORs (U.S. Army G-3/5/7 Strategic Leadership Division, undated, slide 15).

were to be included, new programs and activities stood up, or new partners identified. Given our preceding description, institutionalizing the GLN concept does not imply creating new institutions but might require an expansion in how the currently existing structures view building and leveraging partner relationships. This will entail a significant discussion among G-3/5/7, TRADOC, U.S. Army Forces Command, and the theater armies and led by the Chief of Staff of the Army to determine how important Army relationships with global landpowers will be in the future and how to adjust goals, roles, and responsibilities to leverage them accordingly.

CHAPTER SIX

Army Service Component Command Views of Army Engagement

As the operational HQ overseeing most of the Army's overseas engagements with partner countries, the ASCCs are one of the most important sets of nodes in the GLN. The ASCCs' need to plan, execute, and evaluate Army engagements has made the ASCCs the front line for identifying the benefits of Army engagement. Moreover, because each ASCC operates in regionally specific contexts, works with diverse partner countries, and has limited resources available for conducting engagement activities, each ASCC serves as a test bed for innovations in how to conduct Army engagements. Given the important role that ASCCs play, identifying the challenges they face executing Army engagement is important when considering how to implement the GLN concept.

To identify the role that the ASCCs play in Army engagement and to understand how regional context affects the opportunities and challenges that each ASCC faces, garnering ASCCs' input was an important research component of this study. ASCCs' experiences in theater will need to inform the choices the Army makes with regard to adopting the GLN concept and potentially to strengthening Army engagement more broadly. Two members of the study team visited all six ASCCs.

Overall, we found that, although the regional context for each ASCC created regionally specific considerations, most of the opportunities and challenges that personnel at each ASCC identified for strengthening partner engagement were similar. ASCC personnel with whom we spoke identified five opportunities for strengthening engagement:

- Strong, persistent relationships with partners facilitate access and increase opportunities to work with and through partners.
- Partner engagement can improve Army readiness—but, to do so, engagement activities need to be matched to the right personnel and units.
- Multilateral activities can strengthen regional partnerships, but they are complements rather than substitutes for bilateral engagement.
- A multilateral approach to engagement can enable greater engagement benefits but requires a mind-set shift.
- Interpersonal relationships can jump-start institutional relationships.

ASCC personnel also identified five challenges to strengthening engagement:

- Working well with partners depends on having the right people, with the right skills, in the right place, at the right time.
- Funding uncertainty can undermine partners' trust.
- Lack of accessible data on partner countries makes relationship-building more difficult.
- Assessing whether engagements are successful is difficult.
- An operational HQ structure poses challenges for conducting engagement activities.

Of these challenges, addressing personnel considerations is most relevant for strengthening the GLN concept. Personnel concerns were the ones that ASCC personnel flagged most consistently, and their potential remedies are largely within the Army's purview to implement. In Chapter Seven, we explore options to address these personnel challenges.

Research Approach for Army Service Component Command Discussions

Two members of the study team visited all six ASCCs between August 2015 and January 2016. The study's action officers at TRADOC, who provided names and contact information to the study team, facilitated these visits. Each ASCC organized a series of one- or two-day meetings in which the study team met with interested ASCC personnel. Across the ASCCs, we met with a diversity of personnel involved in the planning and execution of Army engagement. At each ASCC, the study team met with between 15 and 50 people. Although we focused largely on personnel involved in SC planning and operations (G-3/5/7), we also met with representatives from the commanding general's office (e.g., chief of staff), theater support command, fires, and communications. These discussions covered a wide range of ASCC activities and allowed us a more holistic examination of ASCCs' role in partner-country engagement. Participants included Army civilians; enlisted personnel; NCOs; warrant officers; and junior, field, and general officers.

Discussions at each ASCC focused on three questions, which we circulated to each ASCC prior to our discussions: What are the expected benefits of stronger relationships with regional partners? This question was designed to elicit each ASCC's perspective on the benefits of partner engagement to ensure that we captured the full range of reasons the Army pursues engagement and understood how participants perceived strengthening ties as helping the Army achieve its theater-specific strategic objectives.

Our second question asked what types of activities are most likely to strengthen current relationships. As previous work on the effectiveness of SC has demonstrated, engagement activities have varying effectiveness depending on the Army's objectives and partner countries' characteristics (O'Mahony et al., 2016; McNerney et al., 2014; Paul et al., 2013). We included this question to get a sense of what types of activities participants saw as most effective for accomplishing CCMD objectives, what types of activities provided the best understanding of partner countries, and what types of activities would strengthen relationships with countries with which the United States already has good relations versus countries with which it might try to build better relations.

The third question was what challenges exist for expanding Army engagement with partner countries. We designed this question to identify the range of challenges that might constrain Army efforts to increase partner-country engagement. We wanted to identify the extent to which any challenges identified reflected concerns, such as internal Army processes (e.g., personnel or data management considerations), resource availability (e.g., funding or forces constraints), or partner-country characteristics (e.g., saturation of partner countries' interest or absorptive capacity).

Benefits to Army Engagement

Global Landpower Network Value Propositions

During discussions at the six ASCCs, we provided the examples that support all eight value propositions introduced in Chapter Two, although participants did not see all as equally important across the ASCCs. The different emphases on which components of the GLN value proposition are most important to each ASCC highlight the importance of tailoring engagement objectives to match regional context—a point expressed that all ASCC personnel with whom we spoke saw as very important.

Unanimously, ASCC personnel with whom we spoke highlighted the importance of engagement for building stronger relationships with partner countries and for understanding partners. All personnel with whom we spoke perceived trust to be the foundation for strong relationships with partner countries. Some personnel broke the concept of trust down into two key components: (1) a belief that the United States had shared interests with the partner country and could be counted on to work toward common goals and (2) reciprocated respect for partner-country personnel and their capabilities. Because trust is built through sustained engagement and better understanding, ASCC personnel argued, relationships can transition to enduring and fruitful ones.

Many ASCC personnel with whom we spoke also emphasized the importance of Army engagement for gaining and maintaining access. It is important to note, however, that, for ASCCs that had access agreements with enduring partners, participants saw securing access as a less important rationale for increasing engagements than building

trust with a greater number of partners or interoperability gains. For example, some personnel at U.S. Army Central (USARCENT) and ARSOUTH noted that, currently, the United States has robust access throughout their regions; expanding access was not likely to be a priority for strengthening regional engagements.

Personnel in ASCCs with more-capable partners and with partners with long histories of working closely with the United States—in particular, personnel working at USAREUR and USARPAC—valued the importance of building partner capacity and interoperability with the United States most highly. However, personnel in these ASCCs also commented on the difficulty of achieving actual interoperability. For USAREUR, NATO standards provide a strong focal point, but not all partner countries in Europe are members of NATO, nor do they have the capability or desire to conform to NATO standards. As a result, we were told that personnel at USAREUR are trying to develop a new approach to multinational interoperability, raising important questions as to what constitutes interoperability and how to identify the standards to which forces will become interoperable.

In the absence of a regionally relevant interoperability standard, such as NATO standards in the Pacific, USARPAC has had some success but also faced challenges achieving technical and procedural interoperability with U.S. systems (Judson, 2015). To address similar challenges, personnel with whom we spoke at ARSOUTH noted that ARSOUTH has shifted its focus from building interoperability to strengthening multilateral readiness—in which partners identify critical gaps, increase capabilities jointly, and develop processes for compatibility on the battlefield. That said, ARSOUTH personnel also noted an increased interest from some of their partners to adopt some NATO standards to make it easier for them to engage in global peacekeeping operations.

Personnel with whom we spoke at USARAF downplayed the importance of building partner capacity and argued that it was a secondary concern for them behind relationship-building. This prioritization of benefits reflected both a relative paucity of resources for engagement vis-à-vis the large number of partners with which they engage and the relatively low absorptive capacity of many African partner countries, which makes it difficult to build high levels of partner capacity.

Benefits and Challenges of a Multilateral Approach to Engagement

In discussing the specific benefits of the GLN, some ASCC personnel highlighted the importance of engaging multilaterally in general and working with U.S. partners' partner countries in particular. Because U.S. strategy and Army doctrine highlight the importance of networks of partners, some ASCCs are developing plans to reconfigure their engagement strategies to increase multinational participation in training and interoperability-building activities, rather than only bilateral participation.

In USAREUR, focusing on a multilateral approach to engagement has led to a reprioritization of engagement activities that increase interaction with countries with

which the United States had not worked closely in the past but that work closely with other NATO allies. USAREUR planners with whom we spoke felt that their expanded set of engagements was helping to build a more capable network to address potential aggression in Europe. However, they also highlighted that partner prioritization was more difficult when working multilaterally; it was no longer sufficient to prioritize potential partner countries in a list and undertake more activities with the more highly prioritized countries.

USARAF planners have introduced the African Land Forces Summit (ALFS) as a solution to the mostly bilateral nature of their engagements across the African continent. ALFS is a senior-leader summit held in conjunction with regional exercises. Following the 2015 Southern Accord exercise held in Zambia, 37 African leaders participated in ALFS. The summit did not have a set agenda, and discussions ranged from tactical to operational to strategic issues. ALFS has enabled USARAF to engage with a greater number of partner countries without using the same amount of resources that multiple bilateral activities would have expended. More importantly for USARAF, ALFS has provided a forum for African leaders to engage with both the United States and each other to identify regional challenges, develop regional solutions, and engender greater buy-in from regional partners to commit their own resources to address regional concerns.[1] ALFS's strength as a regional forum might reflect the relatively low level of interaction between many of the region's security forces. As such, ALFS represents a good opportunity for regional countries to increase their understanding of others' perceptions of regional concerns and capabilities to address these concerns. Although a multinational forum, such as ALFS, does not build partner capacity in and of itself, it can be used to pinpoint capability gaps and develop a way forward to address these gaps.

Personnel with whom we spoke at ARSOUTH also emphasized the importance of regional forums for identifying regional problems and garnering support for regional solutions. The Conference of American Armies has been an important venue for discussing multilateral challenges, both formally and informally, and developing courses of action that bilateral interactions were unable to generate.

In conjunction with the GLN concept, USARCENT is developing a plan for a Regional Land Power Network. The Regional Land Power Network is predicated on the importance of relationship-based networks throughout U.S. Central Command, and the concept is designed to build opportunities for multilateral cooperation and operations to address regional security challenges.

It is important to note, however, that, although multilateral engagement can provide additional leverage to respond to regional problems, many ASCC personnel argued that multilateral engagement cannot supplant bilateral activities. They gave two main reasons for this. First, they perceived one-on-one interactions as more effec-

[1] ALFS has not had a set agenda.

tive at building trust and demonstrating U.S. commitment to partners. Second, many partners prefer to engage bilaterally with the United States and will not engage at the same level (if at all) at multilateral venues. ARSOUTH planners pointed out, though, that they have seen many capabilities on which the United States has worked bilaterally with partners diffuse throughout the region as region members work together and pass on lessons learned from the United States.

Unless participating countries have enduring relationships with each other, such as exist in NATO, building as strong an understanding of partner countries in multinational engagements as in bilateral engagements can be difficult.

Moreover, multilateral activities that are more intensive than seminars or tabletop exercises can be logistically difficult. As the USAREUR example mentioned above implies, expanding activities to the partners of partners in a resource-constrained environment could come at the expense of engagement with traditional partner countries. Increasing the scale of participation and potentially the size of an event entails a greater logistical burden on ASCC personnel and financial resources. This is exacerbated for USARPAC and USARAF, where the tyranny of distance serves as a constraint to the scale and scope of multinational engagements.

Activities and Programs That Army Service Component Command Personnel Identified as Particularly Effective for Engagement

Interviewees consistently mentioned five types of activities across ASCCs as most effective for Army engagement:

- senior-leader engagement
- exercises
- PME, such as partner-country officers' attendance at U.S. schools, such as USAWC and CGSC
- officer exchange programs, such as the MPEP
- Army National Guard SPP.

Across ASCCs, personnel with whom we spoke identified general officer visits as the most effective mechanism for engaging with partner countries and signaling U.S. commitment. The amount of time general officers can devote to visiting or hosting partner countries' senior leaders is limited, partner countries understand.[2] As a result, general officers spending time with partner-country personnel is seen as a strong signal of the command's desire to build relations with partner countries. Moreover, ASCC personnel have found that, when senior leaders meet, there is often greater efficacy in

[2] Partner countries' senior leaders are similarly constrained. Meetings between senior leaders represent a high-level commitment on both sides.

identifying regional concerns, developing regional solutions, and agreeing to areas for collaboration.[3]

For all ASCCs, exercises tend to be the prioritized engagement events around which other engagements in the region are built. Exercises tend to be the most resource-intensive activities in which ASCCs engage with partner countries, short of operations.[4] Exercises range from tabletop scenarios and culminating exercises to wrap-up seminars and large-scale maneuver exercises involving force deployments. For highly capable, enduring partners and allies, exercises cover a comprehensive array of topics, such as joint combat operations to secure weapons of mass destruction, homeland defense, and cyberattacks. For less capable partner countries and for partner countries to which the United States is trying to reach out, exercises have focused on issues, such as humanitarian assistance and disaster relief. Although participants viewed exercises as important for building interoperability and for understanding partner countries, many ASCC personnel also noted that they were quite resource-intensive and absorbed a large amount of the resources that the ASCC could devote to partner-country engagement. Exercises' resource-intensiveness is particularly constraining as the benefits from exercises are most apparent when exercises are held with the same countries for multiple years.[5]

Personnel with whom we spoke at USARPAC, USAREUR, and ARSOUTH also emphasized the importance of exercises for building unit readiness. Exercises allow units to prepare for future operations in more-realistic environments than exist for training rotations held at continental United States–based training centers. Because most operations in which the Army is likely to engage will occur overseas and are likely to be undertaken with coalition partners, exercises held abroad with partner countries allows tactical units to train with partners while also providing an opportunity to involve necessary logistics and sustainment support. USARPAC's Pacific engagement activities have been designed with readiness gains as a key objective.[6]

Participants saw interpersonal relationships as critical for maintaining strong relations between the Army and partner countries. Personal ties make it easier for Army personnel to reach out to partner countries. They also enable a better understanding of partner countries' interests and capabilities. Personnel with whom we spoke at every ASCC had examples illustrating how interpersonal ties formed between U.S.

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[3] Some ASCC personnel have highlighted the dangers in moving too fast or promising too much at senior-leader engagements. In meetings in which U.S. senior leaders are not familiar with the theater SC objectives and constraints, senior leaders have promised items that the Army was unable to provide.

[4] An exception to this is large-scale security force assistance, which generally occurs as part of a named operation.

[5] Previous RAND work has highlighted the importance of persistent engagement for securing gains from SC investments (Paul et al., 2013).

[6] Pacific Pathways is a series of three exercises conducted in the Pacific in which Army forces and equipment are moved from one location to another as part of a unified operation.

and partner-country personnel, particularly at the senior level; enabled new initiatives; and were critical for forestalling adverse circumstances from eroding army-to-army relationships. Interpersonal relationships appeared to provide the most benefit when developing new partnership areas. The interpersonal ties were catalytic to developing partnerships. However, once a partnership was established, it could be maintained institutionally and could survive personnel turnover.

Two key mechanisms for enabling enduring interpersonal relationships with partner countries are partner countries' participation in U.S. PME programs and officer exchange programs. ASCC personnel with whom we spoke indicated that, when partner-country personnel attended schools in the United States or served with U.S. officers, their shared understanding of U.S. systems and capabilities, in addition to any goodwill that their experiences engendered, made it easier for Army personnel to build trust and deeper relations. USARAF has developed an alumnus symposium in which it invites African alumni of U.S. PME programs, such as USAWC and CGSC, to participate. It has seen good participation, and the symposium both keeps U.S. ties to these alumni alive and fosters deeper ties between African military leaders who are U.S. PME alumni.

A key feature of these PME and officer exchange programs is that they tend to focus on junior and midcareer officers. ASCC personnel suggested that providing opportunities to increase interactions with junior leaders, particularly those on track to become senior leaders, is an effective use of Army resources. Targeting younger officers and maintaining these relationships over time can provide greater access to partner countries' senior leaders as they advance in rank. Building on this logic, a few ASCCs have developed in-country SC activities focused on professional development for junior officers and NCOs.

A study of Australian and New Zealand general officers found that the ties they developed in U.S. PME and officer exchange programs, as well as by serving with U.S. officers at multinational HQ, led to strong interpersonal relations on which they drew in their day-to-day activities (Cavanaugh and Howard, 2015). Majors Matt Cavanaugh and Nick Howard interviewed 21 Australian and New Zealand general officers and asked them to whom they might reach out for advice when they had a particularly tough issue to solve. They found that U.S. officers were a very important source of advice for Australian and New Zealand general officers: "Although no Americans were interviewed, more were included in the network than any other nationality" (Cavanaugh and Howard, 2015, p. 78).

ASCC personnel across all ASCCs also highlighted the importance of the National Guard's SPP. The SPP matches state National Guard contingents with individual partner countries. The state and the partner country conduct engagements on which they mutually agree. Engagements have focused on topics, such as humanitarian assistance and disaster relief, border security, cyber capabilities, and deployment planning. There are currently 70 state partnerships—22 in U.S. European Command,

22 in U.S. Southern Command, 12 in U.S. Africa Command, eight in U.S. Pacific Command, five in U.S. Central Command, and one in U.S. Northern Command (National Guard Bureau, 2015).

SPP partnerships are seen as a particularly important form of partner engagement because of the enduring nature of the interactions and the continuity of personnel involved in the engagements. When Ebola broke out in Liberia in 2014, Brig. Gen. Daniel Dee Ziankahn, the chief of staff of the Armed Forces of Liberia, reached out first to the Michigan National Guard for assistance. Similarly, USAREUR noted that interpersonal ties that developed between Poland and Illinois have helped set the ground for logistical planning. For ASCCs that do not have assigned forces, the SPP increases the number of deployments that can occur in their AORs. This was a key advantage of the program for USARAF.

There are important constraints on SPP involvement in Army engagement. National Guard personnel are limited to relatively short deployments. To make more-efficient use of the time when National Guard personnel will be deployed, USAREUR has adopted a strategy to preposition materiel that SPP deployments might need. Personnel at multiple ASCCs noted that there are also constraints on the types of activities that the National Guard can undertake. The most-common SPP activities typically fall within three categories: (1) knowledge sharing and subject-matter expert exchanges, (2) military senior-leader visits, and (3) nonmilitary senior-leader visits, often between state adjutants general and senior leaders of the partner country, but sometimes including nonmilitary senior leaders from each partner. SPP activities do not generally involve more-intensive training or combat-related activities. Finally, ASCCs have a limited role in directing SPP activities.

In addition to the five sets of programs and activities discussed above, many ASCC personnel mentioned that the Army's RAF initiative has made deploying personnel to undertake engagement activities easier. The Army developed RAF to provide combatant commanders with forces that can be tailored and scaled to help shape the environment. These forces can come from every level of the active Army, the Army National Guard, and the Army Reserve, and they can be of almost any size, ranging from one or two soldiers to entire brigades. They can engage in or help with a wide range of capabilities, including combat, combat support, and combat service support. The largest component of the RAF concept is the brigades that are aligned with each geographic CCMD. Participation in RAF and aligning the brigades to each AOR has streamlined the process for deploying forces for partner engagements, particularly for large-scale exercises.

For those personnel with whom we spoke who have worked with RAF, their impressions were generally favorable, highlighting that RAF allows ASCCs to provide personnel rapidly and flexibly. But unlike the SPP, which provides continuity, person-

nel involved in RAF are only temporarily provided for partner-country engagements.[7] As USARCENT personnel noted, RAF was a great vehicle for getting more people into the region, but, because of personnel and unit turnover in the forces aligned to each region, RAF was not seen a vehicle for building long-term engagement where continuity in interpersonal interactions is paramount. Moreover, although some regionally aligned brigades have developed programs to increase their personnel's regional and cultural understanding,[8] ASCC personnel from USARAF and USAREUR both flagged RAF brigades' personnel's lack of regional and cultural understanding and ability to navigate partner countries' processes as a fundamental shortcoming of the concept. Similarly, for engagements that required subject-matter expertise, assigned RAF brigades did not include the right personnel mix to meet partner-country needs.[9]

Finally, technological innovations in communication have made it easier to engage multilaterally and overcome the constraints that distance poses. USAREUR is working to harness these communication advances in how it conducts training exercises with partners. Working through the Joint Multinational Readiness Center, USAREUR is now conducting training simulations that are multinational and distributed. Other countries use real-time communications to take part in exercises held in Germany.

Challenges for Army Engagement

In addressing our question about what challenges exist for expanding Army engagements with partner countries, most ASCC personnel focused on internal Army procedures and characteristics that limited their ability to build and sustain enduring partnerships. The key challenges ASCC personnel highlighted fell into the following categories:

- magnitude and uncertainty of ASCC resources
- personnel selection, assignment, and training
- data management
- evaluation of the effectiveness of partner-country engagement
- ASCC structure.

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[7] Angela O'Mahony and her colleagues (O'Mahony et al., 2016) found that, although the 2nd Brigade Combat Team, 1st Armored Division, served as RAF for USARAF, the majority of its SC deployments were less than one week in duration.

[8] See O'Mahony et al., 2016, for a discussion of the Dagger University program that 2nd Brigade Combat Team, 1st Armored Division, developed to increase regional and cultural knowledge organically for deploying personnel.

[9] For a more detailed discussion of using RAF for SC, see O'Mahony et al., 2016.

Resources Available for Partner Engagement

ASCC personnel are asked to leverage Army resources as effectively as possible to accomplish their combatant commanders' strategic intent. To do so, they identify and prioritize engagement activities that they perceive will support U.S. security interests. In every ASCC, the list of potential activities far outstrips available resources. As a result, it is unsurprising that a key challenge ASCC personnel noted was achieving their engagement goals with available resources. Although resource constraints are a perennial challenge, two characteristics exacerbate these constraints further.

First, ASCC engagement planners highlighted the role that funding uncertainty plays in undermining partner-country trust. Although ASCC engagement planners use a two-year planning cycle for planning activities, for most events, funding is unavailable until much closer to the event; for some planned events, funding shortfalls lead to event cancellation. For partner countries, it is often difficult to discriminate between U.S. lack of interest and lack of funding, particularly when the United States is viewed as a wealthy country that could fund events if it wanted to. Second, although funding is always seen as an issue, for many ASCCs, personnel shortages were more keenly felt than funding shortfalls. This might reflect the effect of personnel drawdowns in ASCCs, coupled with an increased focus in national security documents on the importance of working with partner countries. ASCC personnel identified the number of staff available to plan and execute engagement activities as a key bottleneck to expanding the GLN in particular and partner-country engagement more broadly.

Personnel Considerations

Concomitant with concerns over access to personnel are the concerns that personnel with whom we spoke at every ASCC raised about whether the right personnel were available for partner-country engagement. Personnel concerns were the most consistently flagged challenges in our discussions. These concerns addressed the following dimensions:

- lack of regional expertise, both in the ASCC and in deploying units
- suboptimal personnel assignment
- lack of continuity in personnel
- disincentives to develop interpersonal ties with partner-country personnel
- lack of Army culture valuing partner engagement.

We discuss these concerns in detail below and present a series of recommendations to address these personnel concerns in Chapter Seven.

Regional Expertise

Within the Army, FAOs (Army military occupational specialty 48) and strategists (Army military occupational specialty 59) have the greatest LREC knowledge. Participants viewed FAOs and strategists as highly valued members of ASCC staffs, and

their expertise was in high demand for enabling partner engagement and for knowledge of partner countries' interests, capabilities, and constraints. Each ASCC identified having more FAOs and strategists on staff as a key desideratum. Although most personnel focused on the need for regional knowledge and FAOs, some highlighted the importance of strategists who could help navigate regions' geostrategic waters, as well as provide expertise for linking partner engagement to theater-strategic objectives more effectively.

To better understand the roles FAOs and strategists play for partner engagement, the study team met with the Army's FAO and strategist proponents. They noted that FAOs and strategists already form an important informal "human network" with global reach that facilitates Army engagement around the world. FAOs in particular are trained to maintain and sustain interpersonal network ties within the Army and with partner countries. FAOs help facilitate the flow of information through regions. Given the informality of these networks, the proponent offices raised concerns that Army efforts to formalize the GLN could have unintended adverse effects on maintaining these networks. As the Army develops strategies to strengthen partner engagement, it will need to recognize the benefits that FAOs' and strategists' informal interpersonal ties generate within the Army and with partner countries.

Many in the ASCCs noted, though, that there are insufficient FAOs to fill billets that would benefit from regional expertise. As the FAO proponent noted, FAOs can fill only about 88 percent of current allotted FAO billets. As a result, FAOs are rarely assigned below the ASCC level. Deploying units and their HQ elements do not tend to have access to FAOs. The higher-echelon nature of their billets has the unintended outcome that most senior leaders do not have the opportunity to work with FAOs and strategists until later in their careers and, as a result, are less familiar with the skill sets they bring to the table. One solution to this challenge would be to train more FAOs. However, because the training pipeline for FAOs is five years, this could potentially be a costly endeavor.

ASCC personnel with whom we spoke also suggested that, although FAOs were important to have, particularly in ASCCs, for deploying units, having some personnel with a higher level of regional expertise than exists now but at a lower level of regional expertise than a FAO has would be valuable. Three strategies were suggested to accomplish this. First, many ASCC personnel suggested developing a new skill designator identifying how much experience an officer has in a particular region. This could be used to track personnel assignments in regions. For example, one officer with whom we spoke at USARAF was on his third tour focusing on the African continent. He saw this as a great advantage for working in USARAF and for engaging with African partner countries. In addition, this skill identifier could be incorporated into an assignment system that would incentivize billets that built regional expertise. Second, many ASCC personnel suggested developing a new specialization that would serve as a less intensive version of the FAO program. Personnel in this track would primarily serve in their

main specialties but would augment their skill sets with additional LREC training. Third, personnel at ARNORTH and ARSOUTH suggested developing more regionally focused U.S. PME curricula.

Each of these courses of action suggests implicitly increasing the habitual regional alignment of some personnel. More broadly, participants often raised increasing habitual alignment of either personnel or units as a strategy to make Army engagement more effective. ASCC personnel drew on their knowledge of (1) SOF's conceptualization of regional knowledge as a template for developing regional skill sets for Army personnel and (2) partner countries' systems of regional alignment (e.g., UK, France, and Australia).

USARAF personnel noted that some of the most effective engagements they observed for RAF deployments occurred when operational units included Africa-born personnel—particularly when the personnel were from the partner countries. These personnel were employed as liaisons with the partner-country forces and were effective at bridging language and cultural obstacles. Some deploying units, such as the 2nd Brigade Combat Team, 1st Armored Division, when it deployed as RAF for Africa, worked to develop regional expertise and cultural skills organically. This is a model that some ASCC personnel suggested is a good strategy at the ASCC level as well. Personnel at USARPAC noted that their assigned units have also been developing regionally specific skills organically.[10]

Overall, the majority of ASCC personnel who commented on the need for greater LREC skills agreed on the following:

- Not all deployed personnel need LREC skills; a few personnel within a unit below the ASCC level would be sufficient for working effectively with partners.[11]
- Regional expertise and cultural understanding were easier to build than language ability and would be sufficient for working effectively with partners, particularly if deploying personnel received greater training in the use of interpreters.[12]
- All deployed personnel need some predeployment regional expertise and cultural awareness briefings. These should focus on regional deployment dos and don'ts.[13]
- More-mature, seasoned personnel tend to do better when engaging with partner-country forces.

[10] Although LREC skills elicited the greatest amount of discussion, they are not the only regional skills needed for regional deployments that ASCCs highlighted. For the Pacific, participants also flagged developing jungle skills as important.

[11] Whether the right level was the brigade or the battalion was uncertain and would depend on the types of missions undertaken.

[12] Although most personnel saw greater facility in using interpreters as important, some were forceful in their argument that using an interpreter is suboptimal to maintaining organic language ability.

[13] Although it was implicit that the units would conduct these, each ASCC might be in the best position to develop such a briefing.

In addition to our meetings with ASCC personnel, the study team met with personnel at the Office of the Deputy Assistant Secretary of Defense for SC. In parallel with ASCC observations, these staffers noted that increasing the regional expertise and cultural understanding of Army personnel who interact with partner countries would be valuable. They also flagged the need for greater training for Army personnel interacting with partner countries to understand all of the instruments the U.S. government uses for conducting SC. Many planners at the ASCCs, who emphasized the need for planners to understand the authorities and funding that can be used for partner engagement, echoed this. Of the approximately half-dozen people who had taken the SC planners course with whom we spoke, reviews were generally favorable. The most valuable part of the course appeared to be the training on authorities and funding. Some respondents suggested that they would have appreciated more emphasis on long-term strategic planning and assessment of partner engagement.

Personnel Assignment

In conjunction with comments about the need for more personnel with LREC skills, the majority of respondents were unhappy about actual personnel assignments. Personnel at each ASCC provided examples in which personnel appeared to be suboptimally assigned to ASCCs. The most–commonly voiced examples were ones in which personnel with LREC skills were not assigned to the regions in which they had expertise. For example, we met FAOs with Asian specializations at USARAF and African specializations at USAREUR.

Continuity in Personnel

In addition to assigning the right people with the right skills, the majority of ASCC personnel with whom we spoke noted that rapid turnover in personnel limited the depth of the interpersonal relationships that could be developed between ASCC personnel and partner-country forces. Some personnel noted that this was particularly frustrating for partners that maintain personnel in the same positions for long periods of time. Moreover, for some partner countries (USARCENT personnel noted that this was particularly the case in the Middle East), developing long-term interpersonal ties is paramount for building trust and gaining access.

Long-serving Army civilians in ASCCs often provide institutional memory and maintain interpersonal relationships with partner countries that can offset the lack of continuity in partner-country interactions caused by turnover in assigned active-duty personnel. For ASCCs located overseas, however, DoD's five-year rule, which limits how long a DoD civilian employee can remain overseas, makes it difficult for civilian employees to work at ASCCs outside the United States for more than five years.[14] As

[14] Although overseas civilians can get exemptions to remain in their positions, recent changes to the five-year rule have limited their ability to maintain their overseas housing allowances.

a result, for USAREUR and USARAF, civilian turnover limits their ability to provide continuity in interpersonal relations with partner countries.

Across ASCCs and across uniformed personnel and civilians, personnel highlighted, although the civilian workforce is very important for partner engagement, it cannot substitute for uniformed personnel. Uniformed personnel more effectively convey U.S. strategic intent and demonstrate U.S. commitment to partner-country personnel than civilian employees do.

Disincentives to Developing Interpersonal Ties with Partner-Country Personnel

Although they were not identified as a significant concern, perceived disincentives to developing interpersonal ties with partner-country personnel was a recurrent complaint. Army personnel face a trade-off between the need to safeguard U.S. security and sensitive information and the benefits of building interpersonal relationships with partner-country personnel. For each new relationship that U.S. personnel develop, there is a need to consider the potential security vulnerabilities the relationship might engender. To do so, personnel are required to report foreign contacts. For many personnel, this process is considered onerous and a disincentive to reaching out to partner-country personnel.

Army Culture

For some ASCC personnel, changing perceptions of the importance of engagement was the most critical step the Army could take to make Army engagement with partner countries more effective. For some ASCC personnel, there was a concern that engagement was seen as something the SC sections took care of and that it was not valued or understood within other parts of the ASCC or the Army more broadly. ASCC personnel felt that the extent to which partner engagement was valued across ASCC directorates reflected whether engagement was seen as a priority for the ASCC's commanding general. For ASCCs in which the commanding general prioritized partner engagement, opportunities for engaging partners were identified across all ASCC sections, and all ASCC activities were planned with an eye to how they fit within the ASCC's engagement strategy. In contrast, when the commanding general did not emphasize the importance of engagement, engagement activities were often sidelined. Senior-leader attention to engagement activities helped to remove stovepipes between directorates, allowed greater insight to the relationships the Army has built with partner countries, and enabled the treatment of engagement as a component of all ASCC activities.

In case the Army decides to invest more resources for partner engagement, ASCC personnel flagged three considerations for greater understanding within Army culture:

- Relationships with partner countries are a two-way street. They are built not only on an understanding of what the United States wants to accomplish but also on an understanding of what partner countries want to accomplish.

- U.S. messaging with partner countries should be consistent. Engagement is more effective if all Army personnel interacting with partner countries know what U.S. objectives are and what steps the United States has taken to accomplish them.
- Army commitments to partner countries need to be honored. Partner-country trust in the United States reflects Army follow-through on previous agreements, and the adoption of agreed-to items, such as joint doctrine (e.g., the Army, in accordance with NATO agreements, needs to adopt the doctrine to which it has agreed through NATO standardization agreements).

Data Management

A source of frustration across ASCCs was the difficulty personnel had accessing information on partner countries. ASCC personnel have different data needs depending on what type of interactions they are undertaking with partner countries. Respondents talked about the value of country overviews that presented top-level information on partner-country characteristics and interests, U.S. objectives with the partner country, and U.S. engagement and commitments with the partner country. They believed that this would be particularly valuable for senior leadership. ASCC planners discussed the value of data on U.S. engagements with partner countries, partner countries' engagements with other countries, and, ideally, U.S. and partner-country personnel's interactions with each other—for example, attendance in PME programs, officer exchange programs, liaison positions, or time in international HQ. Deploying units would benefit from information on partner unit capabilities and points of contact. Logisticians discussed the value of data on doing business in country and points of contact in the partner country's military and civilian workforce for contracting and sustainment.

For some of these data needs, sources already exist, but ASCC personnel are either unaware of them or do not have access to them. Participants highlighted Defense Security Cooperation Agency data on foreign military sales and contacts as one example. Army G-3/5/7 collects information on MPEP billets. Another source of information that ASCC personnel highlighted as useful was information on partner-country alumni from PME programs. Many of the people with whom we spoke suggested that U.S. schoolhouses probably kept information on alumni but that this information did not appear to be accessible to ASCC personnel.[15] We found that, in both FY 2009 and FY 2010, information on foreign student attendance was recorded in G-TSCMIS. A spreadsheet was attached to the TRADOC entry on education that provided information on the foreign students. It included the student's name, rank and grade, course taken, location, program type, case identifier, and the start and end dates of the course. Other data that ASCC personnel collect internally, such as logistical information, are often lost when personnel turn over.

[15] In contrast, one person with whom we spoke at ARSOUTH directly contacted Army schoolhouses that many partner-country personnel attend to get information on in-region alumni.

For data on U.S. activities with partner countries, data collection quality varies across CCMDs and types of engagement. G-TSCMIS is the data repository for DoD SC. However, as all of the ASCCs acknowledged, not all events get entered into G-TSCMIS. USARPAC personnel with whom we spoke noted that events that they are funding will not get funded unless they are entered into G-TSCMIS.[16] Personnel with whom we spoke at USARAF and USAREUR also discussed efforts to increase compliance. However, as USAREUR planners noted, it is often difficult for deploying units to recognize what ought to be considered SC. In the case of recent Army deployments in Europe, there is what planners referred to as an "operationalization of SC," in which deploying units did not recognize training activities that built interoperability with partner countries as SC, so those activities were not entered into G-TSCMIS. In addition, people with whom we spoke at USARAF noted that units that do not normally undertake SC, such as some of the units tasked to conduct SC missions through RAF, are unfamiliar with the G-TSCMIS process and are unaware that they are supposed to enter their events into the system. Moreover, although ASCCs are working to increase uptake of G-TSCMIS at the planning stage, there is far less use of G-TSCMIS at the event assessment stage. Personnel with whom we spoke at ARSOUTH also noted that many SC activities falling under the rubric of humanitarian assistance activities are entered into the Overseas Humanitarian Assistance Shared Information System instead of G-TSCMIS.

After-action reports also represent an often underutilized source of partner-country information. Planners' access to after-action reports varies across ASCCs. Discussions with USARPAC SC planners revealed that planners had access to very few after-action reports. In contrast, the USARAF planners with whom we spoke indicated that they reached out to units to structure the information that was included in after-action reports and to make certain the reports were completed.

All of the personnel with whom we spoke recognized that capturing data on interpersonal ties, although potentially valuable, would be difficult and resource-intensive if they were applied to all Army personnel. One respondent suggested a smaller-scale pilot program identifying general officer interpersonal ties. Data could be collected from the foreign contact information provided to the Office of Personnel Management as part of the security clearance process. If this data set proved useful, it could be developed more broadly to apply to other Army personnel.[17]

In our discussions with the USMA Network Science Center, we identified that the Network Science Center is well placed to develop a prototype data management system for partner-country information. Some of its recent projects have focused on

[16] Each funding request requires a G-TSCMIS event number.

[17] The study team did not look into the plausibility of this suggestion or identify the authorities under which this could be implemented.

collecting, updating, and disseminating disparate data within the Army enterprise information management systems.

Assessing the Value of Partner-Country Engagement

With respect to data management, a few ASCC planners noted that two of the critical challenges to planning partner-country engagement were (1) a poor understanding of what engagement activities were effective for achieving theater-strategic objectives and (2) limited metrics for assessing the outputs and outcomes of Army engagement activities. They raised concerns about the difficulty of assessing partner engagement and the effectiveness of quantitative metrics for assessing engagement. Although most respondents argued that the Army needed to keep better track of the outcomes resulting from Army engagement activities, they also believed that a qualitative approach to doing so might be more fruitful than a quantitative one. USARPAC and ARNORTH in particular have adopted new frameworks for SC assessment. USARPAC has developed a political, military, economic, social, information, and infrastructure–based framework to track partner-country environmental characteristics. ARNORTH has developed a joint planning and assessment framework in which it works with partner countries to identify, prioritize, and assess partner engagements.

Army Service Component Command Organization

Finally, for some respondents, the structure of ASCCs was one of the key challenges to ASCCs' ability to plan, execute, and evaluate Army engagements with partner countries. They argued that the staff-directorate structure in which ASCCs are organized made it difficult to adopt a comprehensive approach to engagements. Unlike combat operations, some respondents argued, partner-country engagements were not well suited to the staffing structure that governs ASCCs. As a few respondents noted, every directorate has a role to play in engagement; however, executing operations does not equate to relationship-building. In both USARAF and USAREUR, there were suggestions that a different, more integrated process—from planning through execution—was needed. In USAREUR, this has led to the adoption of cross-staff battle rhythm briefs that keep all USAREUR directorates informed of partner engagement events. This has been particularly important for USAREUR, where partner engagements are much more operationally focused than in other geographic CCMDs.

Personnel with whom we spoke at USARPAC explained that USARPAC's commanding general, GEN Vincent K. Brooks, undertook a large reorganization of tasking throughout the ASCC. One result was that a strategic effects office, which manages USARPAC's engagement activities from planning through execution and assessment, oversees much of the partner-country engagement undertaken through USARPAC. ARNORTH also reorganized its SC organization by setting up a long-run strategic planning office to oversee the prioritization of SC activities vis-à-vis its campaign objectives.

It is important to note, however, that, for all personnel who commented on the constraint that ASCC staff stovepipes impose, senior-leadership attention to partner-country engagement can (and, on occasion, has) overcome these constraints.

Although most challenges ASCC personnel identified focused on internal Army processes, a few noted that partner-country characteristics and broader U.S. policy could also act as a constraint on Army engagement. Many ASCC planners cautioned that strengthening relationships with partners was not simply a matter of what the United States wants. What partner countries want and what they can absorb are fundamental constraints on how intensively the Army can engage with a country.

Conclusion

ASCCs are key nodes in the GLN. They play an important role in building and sustaining the Army's relationships with partner countries. The ASCC personnel with whom we spoke suggested that engagement with partner countries helps the Army achieve its strategic objectives. Strong, persistent relationships with partners can facilitate access and increase opportunities to work with and through these partners. ASCC personnel emphasized that engagement activities, such as exercises, can improve Army readiness—both by enabling Army personnel to work with partners and by providing opportunities to train in contexts that might more closely resemble future operating environments, as well as by exercising the Army's expeditionary sustainment and support capabilities.

ASCC personnel identified several important challenges to intensifying their engagement missions. Most ASCC personnel highlighted personnel selection, training, and assignment constraints as important challenges to effective engagement. Having the right people, with the right skills, in the right place, at the right time is a key ingredient for successful engagement. Many interviewees, as well as the Army Chief of Staff's SSG indicated that creating an Army culture that values partner engagement would increase incentives for Army personnel to engage with partners and would foster a mind-set that would enable leveraging partnerships more effectively.[18]

Fixing current limitations on engagement is necessary should the Army move forward with the GLN. With regard to engagement, the first area that should be fixed is personnel limitations apparent both at the ASCCs and elsewhere. In Chapter Seven, we address several actions the Army can take with regard to personnel. Second, the Army needs to develop a deeper culture of understanding, appreciation, and commitment to engagement as a component of Army warfighting for the future. Without

[18] Personnel from the SSG participated in RAND's GLN stakeholders' workshop, were involved in a series of stakeholder teleconferences, and briefed the RAND study team on their findings.

addressing these two limitations and the considerable activities each necessitates, any movement toward GLN will be limited at best.

CHAPTER SEVEN

Implications for the Army of Adopting the Global Landpower Network: Personnel Issues

As noted in Chapter Six, personnel concerns were the most consistently flagged challenges in our discussions with the ASCCs. This chapter explores those concerns in more detail because they were so often cited in those discussions and because the potential remedies are largely within the Army's purview to implement. The key question this chapter addresses is this: "How can the Army personnel selection, assignment, and training systems and processes better support GLN-related activities, primarily engagement?"

The approach we take to answering this question uses as a point of departure our definition of the GLN and the opportunities and challenges that the ASCCs identified.[1] In the first section of this chapter, we use those to identify the desired outcomes from personnel systems and processes and then to identify options for changes to those systems and processes that can help to achieve those outcomes.

This analysis rests on two assumptions. The first is that engagement yields positive results, which would mean that improving the Army's ability to undertake engagement would be a worthwhile endeavor. The second assumption is that the ASCCs accurately understand the opportunities and challenges of engagement.

What Is the Desired Outcome?

The first step in improving any system is identifying what the system should be generating. In Chapter Two, we proposed the following definition of the GLN:

> The GLN is the existing and evolving network of partners, connected by a dynamic set of relationships formed through formal agreements, informal interactions, and shared infrastructure, with a common interest in developing and delivering landpower-based options to further collective security objectives.

[1] This chapter cites many points that came up in the project team's discussions with the ASCCs. Those discussions occurred between August 2015 and January 2016. These points are explicitly attributed to the ASCCs in the remainder of this chapter but are not individually footnoted.

This definition suggests the ultimate outcome—furthering collective security objectives—and a path to achieving it by engaging and working with like-minded partners.[2]

The previous chapter described five key opportunities related to partner engagement that we identified during discussions with ASCC personnel:

- Strong, persistent relationships with partners facilitate access and increase opportunities to work with and through partners.
- Partner engagement can improve Army readiness—but, to do so, engagement activities need to be matched to the right personnel and units.
- Multilateral activities can strengthen regional partnerships, but they are complements rather than substitutes for bilateral engagement.
- A network approach to engagement can enable greater engagement benefits but requires a mind-set shift.
- Interpersonal relationships can jump-start institutional relationships.

The first and last of these are the most relevant to a discussion of personnel policies and can be most directly affected by those policies.

The ASCCs also identified five key challenges to engagement:

- Working well with partners depends on having the right people, with the right skills, in the right place, at the right time.
- Funding uncertainty can undermine partners' trust.
- Lack of accessible data on partner countries makes relationship-building more difficult.
- Assessing whether engagements are successful is difficult.
- An operational HQ structure poses challenges for conducting engagement.

The first of these is directly relevant to our consideration of personnel policies.

Combining the GLN definition and the relevant opportunities and challenges yields a set of desired results if personnel policies are to support the GLN effectively. Such policies would enable working together to achieve common objectives by (1) having people with the right capabilities, (2) in the right positions, (3) in order to develop strong, persistent relationships with partners. The following sections discuss these considerations.

[2] For convenience, we use the term *partners* here to include both allied nations—those nations with which the United States has a formal and generally long-term agreement—and other nations with which the United States might be working through less formal arrangements.

Having People with the Right Capabilities

The GLN reflects relationships that have been developed with partners through engagement activities.[3] Although there is some overlap between the capabilities needed to undertake engagement and warfighting, engagement requires different capabilities. *U.S. Army Functional Concept for Engagement* states that engagement "requires trained and educated future Army leaders, Soldiers, and Army Civilians who can advise and assist, influence, build, and fight alongside indigenous populations in permissive, uncertain, or politically sensitive situations" (TRADOC, 2014a, p. 21).

These requirements suggest the need not only for soldiers who are competent in their warfighting functions but also for people who are regionally knowledgeable; who are capable of teaching others; who are capable of understanding that foreign militaries might have objectives that are different from those of the U.S. military; and who are able to work, empathize, and develop and maintain relationships with people from other cultures. Past RAND research confirmed that knowing how to instruct others, the ability to develop and maintain relationships, area expertise, and skill in communicating across cultures are perceived as important attributes for soldiers working in a multinational environment (Markel, Leonard, et al., 2011, pp. 26, 30, 39).

During our discussions, ASCC personnel identified a lack of regional expertise in deploying units and in personnel assigned to ASCCs as a significant obstacle to effective engagement and relationship-building. In its study, the Institute for Defense Analyses (IDA) also identified a deficiency in preparation with respect to regional knowledge (Adams et al., 2014, p. vi). The idea that additional knowledge about a region, its culture, and its situation can make personnel more effective in their jobs in that region might seem intuitively correct. Moreover, anecdotes from ASCC personnel highlighting the problems resulting from the actions of personnel without such knowledge emphasize the costs of a lack of regional expertise. However, rigorous analysis linking higher levels of regional knowledge to increased effectiveness has not, to our knowledge, been done (Markel, Hallmark, et al., 2015, pp. 48–49). In the options presented below, we have included several that could increase deploying personnel's access to regional knowledge. These options vary in how difficult they would be to implement. We urge caution in choosing to implement the more significant changes until the link between increased regional knowledge and increased effectiveness can be more convincingly demonstrated.

[3] The term *military engagement* is defined as "[r]outine contact and interaction between individuals or elements of the Armed Forces of the United States and those of another nation's armed forces, or foreign and domestic civilian authorities or agencies to build trust and confidence, share information, coordinate mutual activities, and maintain influence" (JCS, 2014, p. 152). In common use, it is generally shortened to simply *engagement*.

Options for Improving Personnel Capabilities

We describe several options for changes to the Army personnel and training systems that could improve the alignment between the capabilities in the force and the capabilities needed if the GLN is institutionalized. All of these options would require trade-offs based on an assessment of priorities. We return to the issue of priorities later in this chapter.

Increase the Number of Foreign-Area Officers and Strategists

The ASCCs identified shortages of FAOs and strategists as challenges to increasing engagement. One obvious way to increase the regional expertise available for engagement missions would be to increase the number of FAOs and strategists in the Army.

This approach is not without challenges. It takes several years to develop both strategists and FAOs. In the case of FAOs, the Army would be required to predict the regions for which it will need them some years in advance, which involves some risk of future mismatch of supply and demand for various regions. Also, in a time when the size of the Army is declining, devoting additional slots to FAOs and strategists means pulling those slots from other specialties. This approach would mean acknowledging that engagement is a priority high enough to make those trade-offs.

Creating more FAOs and strategists in the reserve components would be another way to increase access to these specialties. However, when being a FAO is not one's full-time job, it might be difficult to maintain currency in area knowledge and language fluency.

Create Regionally Knowledgeable Specialists

Another option for increasing access to specialized regional knowledge would be to create a cadre of personnel, in the officer or enlisted ranks or in both, who have more regional knowledge than most soldiers but are less specialized—and thus less time-consuming to develop—than FAOs. This could be done by decreasing the amount of LREC training required of a FAO or by focusing training on regional and cultural knowledge. This second option would require devoting less time to language fluency and providing training in the use of interpreters. Developing regionally focused PME courses, another ASCC suggestion, could also be part of this approach.

Create a Cadre of Foreign-Area Warrant Officers

Creating a new warrant officer specialty would be another way to improve access to regional knowledge. This approach could allow for creating more specialists while not taking commissioned officers away from command track positions. A new warrant officer specialty could also create a path for advancement for regionally focused soldiers. Exceptions to "up or out" promotion rules could be made for some or all personnel in the specialty, allowing for longer-term retention of area specialists.

Provide More Predeployment Regional Training

ASCC personnel suggested that personnel need more regionally focused training and training in the use of interpreters prior to deploying. Some brigades, such as the 2nd and 4th brigades of the 1st Infantry Division, have developed and undertaken such training on their own. But the extent to which such training happens can depend on commanders' inclinations, unit initiative, and funding availability. Also, there are resources across the Army that units might not realize are available, such as organizations and units with regional and cultural training programs, language training resources, and available funding (U.S. Government Accountability Office, 2015, pp. 26–28). This reflects the broader challenge of increasing information across the Army of resources available to enable regional knowledge.

Create Engagement Units with More Senior Personnel

In our discussions with ASCC personnel, they noted that more senior personnel in the officer and enlisted ranks are more useful and appropriate for engagement with foreign counterparts because engagement missions require more maturity and experience. The Army could consider creating units consisting of only officers at captain and above and senior enlisted soldiers, without more-junior personnel.[4]

Provide More Training on How to Train Others

Training partner soldiers requires both functional area skills and the ability to teach those skills to others. Although soldiers gain functional competence through the standard decisive-action training that Army units undertake, they do not necessarily know how to train others in those skills. If the GLN is going to involve more emphasis on building partner capabilities, providing more training to at least some U.S. soldiers in how to train other soldiers might be a worthwhile investment.

Study Further the Issue of Relationship Development

Building and sustaining relationships successfully with members of partner militaries will be key to the GLN. What specific attributes make someone good at relationships, why some people are good at it while others are not, and whether and how someone can learn the skill are intriguing questions that deserve further exploration. Although there are some specific skills—such as negotiation and communicating across cultures[5]—that can be taught and can contribute to successful relationships, having those skills is not enough to guarantee that someone will be capable of developing relationships. A

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[4] In addition to providing the personnel most frequently needed for engagement missions, these units could provide a basis for expanding the size of the Army more quickly in case of future need because junior enlisted and officer personnel can be recruited and trained more quickly than the senior ranks.

[5] See, for example, the Program on Negotiation at Harvard Law School, which has courses and materials on topics that include general negotiating skills, dispute resolution, and negotiating in international environments (Program on Negotiation, undated), and the USMA West Point Negotiation Project, which teaches "military leaders to negotiate in complex, challenging situations during both war and peace" (USMA, undated).

deeper understanding of what contributes to the ability to develop relationships could help the Army to select for, train, and foster this ability.

Having Capable People in the Right Positions

Getting people with the right capabilities is a necessary but insufficient condition for enabling the GLN. Those capable people then need to be put in the right jobs. The process of matching people to jobs can be broken down into three parts. First, the Army needs to know what people are available for assignment and what their skills and qualifications are—in other words, the supply of talent. Second, the Army needs to know what skills and qualifications are needed for the open jobs—in other words, the demand for talent. Finally, the Army needs a system for matching one to the other—using the supply to fulfill the demand.

The ASCCs called out the existing personnel assignment process as another obstacle to engagement. Personnel without regional knowledge are assigned to jobs that require it, and personnel with knowledge covering one region are assigned to jobs requiring knowledge about a different region. The assignment process has also been identified in previous research as an issue:

> The problem is that it is very hard to match the supply with the demand. For the most part, data about soldiers' regionally relevant experience, education, and training are available neither to assignment personnel nor to units in the field. (Markel, Hallmark, et al., 2015, p. xvi)

Another study noted, "Except for specialty communities, regional experiences and capabilities are not uniformly monitored across the Department [of Defense]" (Adams et al., 2014, p. iv). This is, as another study noted, not the fault of the Army's human resource professionals but of the ineffective system they must use (Bukowski et al., 2014, p. 3).

Options for Improving Personnel Assignment

Track Regional Skills and Experience

The ASCCs and previous studies have suggested that keeping track of regional knowledge and experience and making that information available to personnel managers would improve the outcomes of the assignment process. A 2015 RAND study suggested making that information available to personnel managers using personnel development skill identifiers (PDSIs), which already exist and are used to track some regional skills and experience, including specialized training, language skills, and special deployments and operational experience (Markel, Hallmark, et al., 2015, p. xvii). Adding PDSIs and making them more easily accessible to personnel managers could

improve outcomes in the assignment process and could be done within existing systems without significant investment of resources.[6]

Implement an Information System to Help Better Match Talent Supply and Demand

A more comprehensive option would be to implement a system that could do a better job addressing all three pieces of the assignment process: knowing individuals' skills, knowing the skills needed for open positions, and matching the two efficiently. A pilot project by the USMA Office of Economic and Manpower Analysis (OEMA) implemented such a system for Army engineers. The system, called Green Pages, provided a way for more information to be supplied on the skills and other qualifications of engineers (the supply of labor) and on the jobs needing those skills and qualifications (the demand for that labor) and for that information to be accessed more easily (OEMA, 2012a, pp. 2–3).

According to OEMA, Green Pages is not a purpose-designed talent management information system and would not be usable for the entire cohort of Army officers (OEMA, 2012a, p. 39). However, it might be worth investigating whether it could be implemented for those GLN-related positions requiring more-specialized knowledge and skills once they are identified. Such an approach could perhaps provide an interim solution while a broader talent management approach is implemented in the Army, along with the supporting processes and information systems.[7]

Another system worth considering as a potential model is LinkedIn, which many professionals use as a way to market their skills, recruit for positions, and develop and maintain a network of professional contacts. A similar system could provide a range of useful functions in the GLN.

Developing Strong, Persistent Relationships with Partners

If capable people are put in the right jobs, the next step is for them to develop strong, persistent relationships with partners. This process can be broken down into two parts. First, there need to be chances to meet personnel from partner militaries to start relationships. Second, there must be opportunities to maintain and strengthen those relationships.

Some opportunities already exist for soldiers to meet and become familiar with partner military personnel. ASCC personnel identified combined exercises, partner attendance at U.S. PME programs, and military officer exchange programs as effective activities for creating relationships. There are also programs that send U.S. personnel to partner countries for educational opportunities.

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[6] Markel and his colleagues provide an in-depth explanation and suggestions for how these identifiers could be created and used to good effect. See Markel, Hallmark, et al., 2015, pp. 51–58.

[7] U.S. Army Combined Arms Center, 2015, describes the Army's plan for implementing talent management.

Enhancing and maintaining relationships once developed seems to be the more difficult challenge. The size of the U.S. Army, the range of its units and activities, and the normal rotation of personnel through those units and activities make it unlikely that soldiers will again encounter foreign military personnel with whom they have previously worked. The ASCCs called out the lack of continuity in U.S. personnel as a particular challenge to undertaking engagement, a point that the Army Strategic Studies Institute also made (Bukowski et al., 2014, p. 7). ASCC personnel cited the National Guard SPP as being very effective in creating and maintaining relationships with partner military personnel, a point made in an IDA study as well (Adams et al., 2014, pp. 24–25). Because the guard personnel change units less frequently than active-duty personnel and because the relationships between guard units and partner countries are enduring, it is much easier to create and maintain persistent relationships.

Options for Improving Relationships with Partners

Increase Engagement Activities

Giving soldiers more opportunities to meet and work with foreign counterparts is one obvious way to develop the relationships that could enhance the GLN. This approach is consistent with the strategic guidance described in Chapter Three. As the high deployment demands from the past decade abate, units might have more time to engage in these types of activities. More activities would, of course, require more resources, which could require a change in priorities if defense budgets remain fixed or decline. Later in this chapter, we discuss the issue of priorities.

Revisit Overseas Civilian Policies to Reduce Turnover

The ASCCs suggested reducing civilian turnover as one way to increase the continuity in U.S. personnel. Because military career development drives relatively frequent changes in position, civilian personnel can provide important continuity. Policies that limit the terms of employment of civilians serving overseas and the allowances that they receive can encourage turnover. Such policies can have goals other than encouraging personnel continuity (such as providing employment opportunities for military families and providing developmental opportunities) (Office of the Under Secretary of Defense for Policy, 2012, p. 3). Reexamining these policies, an option that a recent IDA report also suggests (Adams et al., 2014, p. 62), could provide a venue for weighing the priority of the various goals and modifying the policies in ways that would enhance continuity.

Increase Habitual Alignment of Personnel and Units

The existing Global Force Management process (by which forces are selected for deployments around the world) does not seek to return units to areas of the world to which they have previously deployed. In fact, this process is counter to two of the goals of the GLN: developing regional knowledge and developing enduring relationships. Having units and individuals deploy repeatedly to the same area of the world could

help progress toward both of those goals. Although sending a unit to the same area repeatedly does not guarantee that U.S. personnel would encounter the same foreign personnel they have encountered before, it certainly improves the odds above mere chance. Even if many of the same people are not present, there are likely to be some people who remember previous associations between the units, which can pave the way for relationships.

Making a greater effort to send people to the same area repeatedly would also improve the odds of repeated encounters with known foreign personnel. Such an approach might also provide greater incentives for people to maintain those relationships on their own and would allow people to build on previously acquired regional knowledge.[8] Increasing habitual alignment for units or people would, however, require some fairly significant changes in some Army processes.

Create an Analogue to the State Partnership Program for Active and Reserve Units

As noted earlier, the SPP is cited as being very effective in maintaining persistent relationships between guard units and personnel and their partner counterparts. Such relationships could be created for active-duty and U.S. Army Reserve units as well. This would be one way of creating the habitual alignment for units suggested above. Such an approach could provide for activities with partners that are more frequent, longer, and more varied than are possible for guard units.[9]

Consider Reducing Foreign Contact Reporting Requirements

ASCC personnel noted that there are some disincentives to developing interpersonal ties with partner-country personnel, particularly the requirements to report contacts with such personnel. It would be worth considering ways to make these reporting requirements less time-consuming, perhaps by reducing the amount of information that must be provided, streamlining the way the information is reported, and focusing reporting on specific countries. Security issues must obviously be considered, but there might be ways to ensure security while reducing administrative burdens.

The Fundamental Issue: Culture and Priorities

For sound and sensible reasons, the Army's culture and priorities have focused on warfighting. That remains its primary mission. Its promotion system, its education and training approaches, its assignment system, and its unit rotation approach all focus on warfighting skills and needs. Modifying these enterprises to focus more on the requirements for undertaking engagement is not a trivial task. Yet changes might be neces-

[8] This point has also come up in our discussions with Army personnel about the RAF policy.

[9] There are restrictions on the types of activities that guard units can undertake when on overseas deployment training, as well as on the length of those activities. See HQDA, 2004, pp. 4–5.

sary if engagement is to become a priority mission and if the GLN is to be successfully implemented. In fact, ASCC personnel noted in our discussions that Army culture is not perceived to value engagement. That perception is an obstacle to its success.

We use the following definition of organizational culture:

> (a) a pattern of basic assumptions, (b) invented, discovered, or developed by a given group, (c) as it learns to cope with its problems of external adaptation and internal integration, (d) that has worked well enough to be considered valid, and therefore (e) is to be taught to new members as the (f) correct way to perceive, think, or feel in relation to these problems. (Schein, 1990)

Organizational change is usually evolutionary because basic aspects of organizational culture in a mature institution generally have existed for a long time and they tend to become embedded in the organization, internalized widely, and new members are socialized into the culture (Carrillo and Gromb, 2007). Because of such deeply ingrained aspects of organizational culture, senior leadership in an organization needs to either lead or at least accept any attempt at change in the organization's culture. Although some organizations within the Army are more open to a culture of engagement, large-*n* survey-based data show that there are some institutional impediments as to how deeply internalized such a culture might be (Larson et al., 2013).

The Army should consider whether undertaking engagement is truly going to be an important priority mission. By saying this, we do not mean to question whether engagement is worthwhile; nor do we mean to suggest that prioritizing engagement is the only sensible approach. That is a choice best made by leadership. But we do suggest that an explicit discussion and a decision should occur as to engagement's priority. If engagement really is a priority mission, changes will need to be made in the Army's culture and in some of its most important processes and systems. These kinds of changes require ongoing attention and commitment from senior leaders, as well as explicit official statements and reinforcement over several years, if they are to succeed. And actions will need to match rhetoric. For example, if engagement is said to be a priority mission, personnel who focus on it will need to be more often and more visibly promoted.

If policy and actions are perceived not to match, Army culture will not adapt, and many of these recommendations will fail. In fact, if engagement and the GLN are not truly important priorities, many of these recommendations should not even be attempted.

Conclusion

Army leaders call people "the core of our Army" and its "collective strength" (Murphy and Milley, 2016, p. 6). People are key to undertaking the Army's missions, and this is

certainly the case with engagement. If engagement becomes a mission of equal priority with the Army's warfighting mission, the personnel system will need to adapt to ensure that people with the right capabilities are put in the right positions so that they can develop strong, persistent relationships with partners. This chapter presented several options the Army could implement to make some of those adaptations. Chapter Eight integrates those options with additional recommendations designed to help the Army to institutionalize the GLN and expand engagement.

CHAPTER EIGHT

Conclusions and Recommendations

The GLN concept described here is a means to integrate, sustain, and advance the considerable ongoing efforts in the U.S. Army to meet the top-level mandate for engaging more partners in more ways to meet national goals. The value propositions we posited for the GLN extend engagement from what were often strategic-level issues, performed by a select group of highly trained linguistic and cultural experts, to include more tactical and operational benefits that a larger swath of U.S. Army personnel would perform. This creates opportunities for tangible benefits to be seen and felt by the whole of the Army—from senior leaders engaging foreign landpowers to unit leaders who might need to train and operate in foreign lands. As a result, institutionalizing the GLN will necessarily involve a broader range of offices from within the Army than has historically been involved in guiding Army engagement regionally and globally. A concept with such scope, therefore, will need to be seen as a whole-of-Army approach with consistent institutionalization within the Army.

The GLN concept is built on a foundation of previous and ongoing networks, such as the GMN and the GSN, as well as a growing literature and understanding of how networks are built and used for different purposes. These experiences highlight the benefits to a network approach for the Army as its partner relationships grow and evolve. However, they also highlight downside risks as relationship management and planning become more complex and the Army engages more intensively with more partners. Beginning to integrate the growing understanding of how networks are formed and maintained and how they will respond to perturbations will help to mitigate these risks.

The GLN concept provides the Army with a framework to develop a more sophisticated and nuanced view of Army relationships with external actors and to use its limited resources more effectively to accomplish U.S. goals.

Implementing the concept of GLN is a long-term undertaking, and moving forward means pursuing a wide range of initiatives. Some of the recommendations, pertaining to near-term institutionalization of the GLN, are designed to set the stage for further progress down the road. Others are in the realm of improvement of current processes or are designed to raise the status of engagement within the Army. Other than some essential early steps, such as determining a champion for the GLN, the

recommendations can be pursued simultaneously, leading to periodic recalibration. In the rest of this chapter, we list several recommendations to move the Army toward this vision and fully institutionalize the GLN into its culture.

Near-Term Institutionalization of the Global Landpower Network

In the near term, developing the GLN concept will require senior-level support, greater information on the activities that enable the GLN, and integration into Army doctrine and procedures.

Determine a Champion for the Global Landpower Network

The GLN implicates several three- and four-star commands in its execution: those that control the programming and policy for SC, those that perform the activities, those that feel the operational benefits, and those that plan for the future of how the Army will operate. It also includes high-level interactions with senior leaders in other land forces, both within the United States and abroad. Therefore, a high-level figure will necessarily be the champion for such an endeavor.

Recommendation: Given the whole-of-Army approach the GLN represents, the Chief of Staff of the Army should champion the concept with appropriate delegation for activities.

Test and Codify the Value Propositions of the Global Landpower Network

The value propositions presented in this report are still just that—propositions. We collected them from ample relevant anecdotes, widely perceived as real by military leaders, and used as justification for significant programmatic activity in SC. Testing and discussing the value propositions will need to continue in order to refine these propositions. Moreover, the academic literature is still under development to empirically determine the basic phenomenology embedded in global and regional networks and the value of networking approaches in general. In this study, we developed a preliminary framework to help Army planners develop a network approach to engagement. More work is necessary to understand and refine how to apply that networking approach to operational situations in which the Army is interested.

Recommendation: The Army schoolhouses and the ARCIC should continue to explore, through research, the link between engagement and operational outcomes.

Recommendation: The ARCIC should engage in tabletop planning to identify how network approaches would lead to different operational outcomes.

Discuss the Importance of Engagement and Demonstrate Commitment to the Global Landpower Network

Engagement is still being integrated as a warfighting function and thus is still a relatively new concept with champions and detractors throughout the Army and DoD. Thus, the GLN concept, as a further extension, will have to overcome many of the same institutional barriers, which will necessitate senior leaders having knowledge of it and explicit support for its proposed values and risks. This can happen through many different activities, including discussions that might be internal, external, or done through educational or other proxies. Senior leaders should take this opportunity to firmly establish or disestablish support for a larger engagement effort by way of the GLN. If the perceived value of engagement is to be increased throughout the Army, both explicit decisions and visible, persistent support for it will be required.

Recommendation: The Army should endeavor to discuss the position that engagement should have within the Army vis-à-vis other warfighting functions.

Recommendation: Appropriate Army senior leaders should explicitly pronounce their support for the GLN concept in order to move it forward.

Determine Roles and Responsibilities for the Global Landpower Network

The Army will need to explicitly determine the various roles and responsibilities for the GLN, including those of the ASCCs, the schoolhouses, G-3/5/7, operational units, and even individual soldiers. This needs to be codified in an appropriate Army publication.

Recommendation: TRADOC should codify roles and responsibilities for the GLN into an Army regulation or pamphlet.

Integrate the Global Landpower Network into Strategy, Vision, and Doctrine

The GLN concept is consistent with current Army and national strategy but will need to be explicitly mentioned and integrated elsewhere to codify it. The concept will then need to be fully integrated throughout Army doctrine and other publications and especially explained with regard to the engagement warfighting function, which is still becoming institutionalized. This will then drive how the Army plans to leverage the GLN to enable Army leadership, personnel, planning, and operations to accomplish objectives more effectively.

Recommendation: When appropriate, the GLN should be integrated into the Army strategy, vision, doctrine, and other publications.

Improve Data Collection and Data Access on Engagement Activities

ASCC personnel highlighted their difficulties using the data available to them to develop a common operating picture for regional engagement. This reflected both poor data accessibility—data that had been collected, such as records of foreign students attending Army schoolhouses, were either unknown or unavailable to them—and poor data collection. G-TSCMIS is the Army's data repository for SC. However, engage-

ment planners noted that the set of activities included in the system is incomplete and that, for many of the activities that are included, information is incomplete. ASCC personnel suggested that incomplete data entry might stem both from lack of knowledge from executing units that their activities constituted SC and thus entering them into G-TSCMIS was a requirement and from lack of guidance suggesting that entering data into G-TSCMIS was a priority. In our data analyses to baseline the GLN, the information gaps in G-TSCMIS were notable. Moreover, other RAND work (Watts et al., in production) has reported that ASCC planners often do not receive completed after-action reports for engagement activities.

Recommendation: If G-TSCMIS is to continue as the data repository for Army SC activities, the Army should socialize G-TSCMIS to units undertaking SC activities.

Recommendation: The Army should work with the USMA Network Science Center to develop a prototype data management system for partner-country information.

Recommendation: The Army's engagement community of interest should baseline current relationships based on engagement activity data.

Improve Assessment of Engagement Activities

ASCC personnel noted that two of the critical challenges to planning partner-country engagement were (1) a poor understanding of what engagement activities were effective for achieving theater-strategic objectives and (2) limited metrics for assessing the outputs and outcomes of Army engagement activities. Congressional attention has also focused on the need to assess SC effectiveness more rigorously, including a requirement for assessment in the 2016 National Defense Authorization Act. Each ASCC currently has an SC assessment strategy in place, in keeping with Army assessment guidance. However, engagement activities are often difficult to assess effectively. The strategic objectives for which engagement activities are designed are often long term, sometimes not well defined, and influenced by factors beyond the Army's control, which makes assessment challenging. The international aid community faces similar challenges evaluating development-focused activities and has been developing evaluation techniques to address them.

Recommendation: The Army should prioritize assessment for engagement activities.

Recommendation: The Army should identify lessons learned from international aid organizations that can be incorporated into the Army's current SC assessment framework.

Medium-Term Expansion of Engagement

If the Army decides to institutionalize the GLN concept, in the longer term, it will need to undertake steps to incorporate the GLN concept throughout the Army.

Develop a Stronger Culture of Engagement

Current Army culture and priorities have focused on warfighting, which remains the Army's primary mission. However, discussions with ASCC personnel highlighted that they did not perceive Army culture as valuing engagement. Modifying Army culture to value engagement is not a trivial task. Yet changes might be necessary if engagement is to become a priority mission and if the GLN is to be successfully implemented.

Recommendation: If Army leadership decides that engagement is a priority mission, consider reshaping Army culture to value engagement activities. This would require ongoing attention and commitment from senior leaders, as well as explicit official statements and reinforcement over several years. Senior-level Army leadership spearheading the effort is essential, and actions will need to match rhetoric.

Realign and Expand Structures and Programs to Support a Global Landpower Network

The structure underpinning engagement is small vis-à-vis the entire Army enterprise, although it also appears relatively flexible if new objectives were to be included, new programs and activities stood up, or new partners identified. From our description, institutionalization of the GLN concept does not imply creating new institutions but might require an expansion in how the currently existing structure views building and leveraging partner relationships.

The programs underpinning current engagement provide opportunities for engagement and are a small part of what the Army does and what personnel see. These programs might need to eventually grow to cover alternative landpowers, be expanded to new and different partners, and take on a new character of inclusion, depending on results of critical thinking about how the network will function.

Recommendation: The Army should plan for growth in and new forms of engagement activities.

Recommendation: The Army should reinforce institutions that bear the brunt of growth in engagement activities from the GLN.

Expand the Meaning of the Engagement Warfighting Function

The engagement warfighting function eventually will need to be expanded to include all aspects relevant to the relationships expected in the GLN.

Recommendation: The ARCIC should expand engagement warfighting function in line with the GLN concept, with concomitant follow-on effects in various other doctrinal materials.

Expand and Cultivate the Pool of Engagement Personnel

The Army has an increasing number of engagement opportunities afforded to it, given all the interest in recent years to relationship-building. However, those skills are typically either at the high end, with certain specialties, such as FAOs and strategists,

focused on engagement or at the low end for forces with minimal predeployment training. As the GLN is built out and more tactical and operational values are ascribed to those relationships, a larger portion of the Army will need to be prepared accordingly to engage.

Several sources in this work confirmed the lack of regional expertise in deploying units and in personnel assigned to ASCCs as a significant obstacle to effective engagement and relationship-building. Working with foreign partners depends greatly on the people executing engagement activities and having the right people with the needed expertise in the right positions. Although the existence of a connection between regional knowledge and operational outcomes is commonly believed, empirical data supporting this connection are scarce. Nonetheless, there is a growing cadre who do believe that having more cultural and regional knowledge is better.[1]

Recommendation: The Army should consider assessing the relationship between additional regional knowledge and increased effectiveness in engagement.

Recommendation: The Army should consider growing regional and cultural expertise throughout the army. Options for doing so include the following:

- adding personnel with LREC skills to ASCCs and units below ASCCs
- increasing the number of FAOs and strategists
- creating regionally knowledgeable specialists, which fill the gap between full-up FAOs and predeployment training
- creating a cadre of foreign-area warrant officers
- providing more predeployment regional training
- creating new curricula for LREC that focus less on language and more on regional and cultural knowledge, along with use of interpreters.

Actively Manage Engagement Personnel Consistent with the Value of Engagement

In addition to having the right people with the right skills, those people need to be placed into the right positions to have an effect. The existing personnel assignment process was highlighted in various interviews as an obstacle to engagement. The fix is to build better systems for tracking and managing and better metrics for capturing regional and cultural expertise.

[1] There are, of course, practical limitations: Developing detailed regional knowledge about all possible places in which the Army might conceivably operate would be prohibitively expensive. Again, developing priorities will be important.

Recommendation: The Army should extend personnel systems to manage engagement talent in order to force the right skills to the right positions in the right regions. This might include the following:

- tracking regional skills and experience (perhaps through PDSIs) and making those data available to personnel managers to affect the assignment process
- implementing an information system to help match talent supply and demand.

Increase Opportunities to Develop Strong, Persistent Relationships with Partners

Our discussions in this study highlighted the importance of time in building relationships. Being able to manage personnel and provide them with ongoing activities to build relationships over longer timelines will be necessary to maintaining and growing the GLN. ASCC personnel noted the importance of certain activities that provide such opportunities.

Recommendation: The Army should work toward managing personnel and investing in activities that allow for habitual and deep relationships. This might include the following:

- increasing engagement activities, in general
- changing overseas civilian policies to reduce turnover
- increasing habitual alignment of personnel and units
- creating an analogue to the SPP for active and reserve units
- reducing foreign contact reporting requirements.

Develop and Integrate Network-Centric Planning Procedures and Visualization Tools

Army planners considering engagement and engagement-like activities will need to integrate new planning templates, procedures, and visualization that better align partners with and plan activities based on GLN value propositions, putative network archetypes, and existing relationship data.

Recommendation: The Army should incorporate network-centric approaches to planning.

Recommendation: The Army should develop country and regional dashboards summarizing GLN activities, country characteristics, and relationship data.

Overall Assessment

Overall, the GLN, although consistent with senior-level intent, has significant operational and institutional challenges to its realization. GLN is a broad concept for recasting engagement to be much bigger across the Army, involving not only the typical professionals, such as FAOs and strategists, but also individual soldiers and their

engagements with and in other countries. A network approach to relationship-building assumes that the Army (or anyone) could manage or at least understand and plan complex relationships for tactical and operational gains alongside the Department of State and other agencies and their needs. Implementing the GLN concept also assumes that the Army can overcome the perceived lack of support for engagement and allow it to flourish as a warfighting function alongside conventional functions. Building relationships is still perceived as taking valuable time away from conventional warfighting, which is currently striving to overcome its own gaps.

Very little empirical data exist that shows the value of more and different relationship-building, cultural knowledge, and the like. Opening the aperture on relationships, formal and informal, will be under at least the same level of scrutiny as engagement in general: The GLN is a more vague, inclusive, and nebulous set of evolving actors.

Broadly speaking, a cultural change is needed in the Army to extend such thinking on networks and relationships. That change will follow explicit senior-leader support for the GLN concept and engagement in general and will further change as Army personnel involved with engaging partners sense that the Army's system values them and their skills appropriately. The GLN concept will not materialize through the ambient atmosphere of relationship-building alone.

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The U.S. Army has introduced the global landpower network (GLN) concept as a means to integrate, sustain, and advance the Army's considerable ongoing efforts to meet U.S. national security guidance emphasizing the importance of working closely with partner nations to achieve U.S. strategic objectives. This report develops the GLN concept further and addresses three questions: What benefits can a GLN provide the Army? What are the essential components of a GLN? What options exist for implementing the GLN concept? By developing the GLN concept, the Army has the opportunity to transition the way it engages with partners from an often ad hoc and reactive set of relationships to one that the Army more self-consciously prioritizes and leverages as a resource to meet U.S. strategic objectives.

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