JOINT SPECIAL OPERATIONS UNIVERSITY
DEPARTMENT OF STRATEGIC STUDIES

Defense Institution Building … by Design

By Richard D. Newton, Ph.D.

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About the Author

Dr. Richard Newton is an operational-level planner at Special Operations Command Africa. Prior to his current assignment, he was a senior faculty member at the Joint Special Operations University (JSOU), having served at JSOU since its inception. He was also a member of the team that contributed to the early development of the NATO Special Operations School in Belgium.

Dr. Newton holds a doctorate from King's College London, where his research examined the role of air forces in irregular conflict between the two world wars. His master's thesis contributed to the creation of the aviation foreign internal defense capability in the United States Special Operations Command. He is a passionate educator, researcher, and curriculum developer in the fields of special air operations, irregular/asymmetric warfare, special operations planning, and air-ground integration.
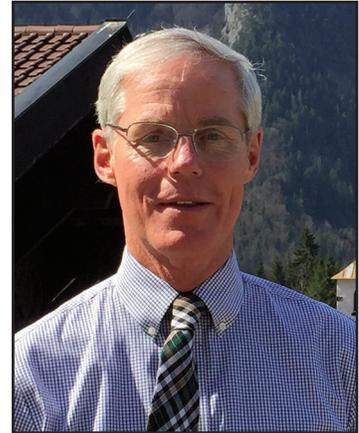
Dr. Newton is one of the four founding members of the JSOU Design Thinking program and has been fortunate to facilitate design thinking inquiries across the Special Operations Forces enterprise. He is a graduate of the United States Air Force (USAF) Academy and the U.S. Army School of Advanced Military Studies. Prior to his retirement from active service, Dr. Newton served 22 years in the USAF as a combat rescue and special operations helicopter pilot, combat aviation advisor, planner, and educator.

Defense Institution Building ... by Design

Introduction

The United States Defense Institution Building (DIB) program was initiated in the midst of the 1990s post-Communist reform, and then redirected after 2001 to accommodate what was then called the Global War on Terror. Today, as the end of the second decade of the 21st century nears, DIB is becoming a key asset in U.S. foreign policy, especially as the U.S. and its allies shift their security emphases towards a new era of great power competition. The 2018 National Defense Strategy clearly articulates the imperative of strong alliances and partnerships in the context of reemerging long-term, strategic competitors,[1] while the 2017 National Security Strategy notes America's expectation that its allies will "modernize, acquire necessary capabilities, improve readiness, expand the size of their forces, and affirm the political will to win."[2] Since the purpose of the DIB is to enhance the capacity of allies and partners to sustainably man, train, equip, and independently employ their own military and security forces in support of common strategic interests, improving the U.S. approach to DIB is a necessity moving forward.

The thesis of this paper is that sustainable strategic effects through DIB requires paradigmatic change among key military stakeholders and their willingness to engage in systemic reform. While Security Force Assistance (SFA), Foreign Internal Defense (FID), and Joint/Combined Exchange Training (JCETs) have long been staples of Special Operations Forces (SOF) engagement, they are often unable to achieve DIB objectives because they are not intended to achieve paradigm shifts and the consequent organizational transformation necessary to organically sustain the new capabilities. Overtly recognizing this discrepancy is essential for improving DIB practices and augmenting allied and partner nations' contributions to collective defense.

This paper begins by describing the purpose of DIB and then differentiating it from SFA, FID, and JCETs. In particular, it introduces the Iceberg Model of learning to frame how the aforementioned training and education activities align with respect to paradigms, or mental models. Next, it reviews the existing literature on DIB, including Department of Defense (DOD) doctrinal publications, in order to understand the history and environment that led to DIB, but also the challenges to successful DIB programs. Then, because this paper recommends taking a design-thinking approach for designing, developing, and implementing a sustainable DIB partnership with a willing nation, an overview of one design-thinking approach will be offered.[3] The paper then offers

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1. *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the America Military's Competitive Edge* (Washington, D.C.: U.S. Department of Defense, 2018), 2, 8-9.

2. *2017 National Security Strategy of the United States of America* (Washington, D.C.: Office of the President of the United States of America, 2017), 28.

3. It is important to note that there are a number of design-thinking models. Most are focused on specific areas such as organizational transformation, product design, curriculum development, process improvement, and military planning. The common goal among all design-thinking approaches is discerning creative solutions to complex or human problems.

a case study of how a design-thinking approach facilitated the transformation of Romania's SOF—a priority DIB effort for Special Operations Command Europe (SOCEUR).

Even with the transformation successes achieved to date in Romania, the DIB collaboration between Romania and SOCEUR continues because, as the review of the literature makes quite clear, DIB is a long-term endeavor but more importantly, design is a continual and ever-evolving approach to problem-solving. The paper concludes by evaluating one design-thinking approach against the existing literature on DIB to show why this case study serves as a potentially useful example of how appropriately tailored DIB programs might influence potential partners' abilities, capacities, and willingness to accept and apply U.S. advice and material assistance.

DIB as a Paradigm Change

DIB is the name given to the range of security cooperation and security assistance programs focused at the national or strategic levels in priority partner nations. These programs address the needs of partner nations' government agencies and the higher military commands that are charged with resource management, developing strategy and policies, force development, force management, and other strategic-level management and resourcing decisions. The goal of such high-level tools is to create networks of reliable partners that will work together to create a safer, more secure world by sharing the burdens, costs, and consequences of international security.[4] No matter where one sets the start date for when the U.S. started emphasizing DIB, be it 1994 with the U.S.-led Partnership for Peace programs in Europe or 2010 with the formalization of the Ministry of Defense Advisor (MODA) program, the fact is that DIB is a relatively new entry into the realm of security cooperation. It should be expected, then, that the specific programs, experiences, training, and supporting elements that define DIB continue to evolve.

The role of ministerial and institutional-level advisors is to influence and modify another nation's decision makers in order to change policies, regulations, programs, or laws affecting resourcing, manning, equipping, and funding. These changes only happen when partner nation decision makers are willing to change practices, priorities, and policies. At the organizational/institutional level, such change can fly in the face of traditions, culture, and accepted social norms. Through study and cultural sensitivity, programs may be structured, and advisors can learn to deal with organizational complexity. It is at the personal level, though, where the DIB environment becomes "wickedly complex."[5] Decision makers are people with

> *Through study and cultural sensitivity, programs may be structured, and advisors can learn to deal with organizational complexity.*

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4. DoDD 5205.82, *Defense Institution Building* (4 May 2017), 13.

5. The term "wicked problems" was coined by Horst Rittel, a German design-thinking theorist, in the 1960s. In 1973, Rittel and his colleague, Melvin Webber, applied the term to social planning, noting that in the human domain there are no scientifically quantifiable solutions. Horst Rittel and Melvin Webber, "Dilemmas in a General Theory of Planning," Policy Sciences 4 (1973). It has come to mean a problem that is impossible to solve because of contradictory and constantly changing components. Wicked problems have no identifiable stopping point.

all the usual gifts, talents, motivations, biases, and character flaws that make them human, and it is this human, often nonrational, aspect that defies mathematical modeling and scientific prediction.

In 2013, the RAND Corporation was tasked by the Office of the Secretary of Defense (OSD) to study the past two decades of U.S. DIB efforts in order to recommend a "set of policy goals and objectives, develop a strategy for achieving them, and propose associated Defense Department roles and responsibilities."[6] RAND's extensive, almost two-year long study, *Defense Institution Building: An Assessment*, was published in 2016. Since then it has served as the baseline document for most other research and analyses on DIB. The study found that in 2014 U.S. SOF were making valuable contributions to DIB efforts, but the United States Special Operations Command's (USSOCOM) role as a functional combatant command without a regional mandate was still evolving.[7] Five years ago, the Theater Special Operations Commands (TSOCs) had been recently realigned from the geographic combatant commands (CCMD) to USSOCOM and the staff had just begun its work to draft a campaign plan for global special operations. Since the RAND study was completed, USSOCOM began bringing the TSOCs together on a regular basis to synchronize the theaters' requirements for SOF and to allocate scarce forces, funds, and capabilities to balance priorities against available U.S. SOF capabilities, availability, and organic training requirements.

USSOCOM makes the claim that its focus for partner capacity building is at the strategic level. The RAND study noted that the USSOCOM mission was institution building, (i.e., engagement at the strategic level that flows down to the tactical level).[8] To facilitate this approach, USSOCOM placed special operators in about two dozen embassies to serve as Special Operations Liaison Officers (SOLOs) to complement and enhance the efforts of the Services' security cooperation officers, few of whom have any special operations background or expertise. The SOLOs synchronize the security assistance activities of deployed SOF—exercises, training, educational opportunities, etc.—and build relationships among the U.S. country teams, the partner nations' SOF, and the TSOCs. The challenge for USSOCOM and the TSOCs has been that not all SOLOs have had the background, training, education, and experiences to help them succeed as strategic-level advisors. Some well-intentioned, but

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underprepared SOLOs thus devolve from the national and strategic level to the tactical world of unit-level training—a perfectly normal expectation from a culture that prides itself on action and results.

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6. Walter L. Perry, Stuart Johnson, Stephanie Pezard, Gillian S. Oak, David Stebbins, and Chaoling Feng, *Defense Institution Building: An Assessment* (Santa Monica, CA: RAND Corporation, 2016), iii, https://www.rand.org/pubs/research_reports/RR1176.html.

7. Perry, et al., *Defense Institution Building*, 35–36.

8. B. Allaire, USSOCOM Directorate of Force Management, 20 February 2014, quoted in Perry et al., 72.

DIB Does Not Equal the Sum of Tactical Security Cooperation Programs

The focus of nearly all security cooperation programs, at least in the second half of the 20th century, has tended to be firmly at the tactical level. The primary activities, events, and programs used to accomplish security cooperation and security assistance tended to be episodic unit-to-unit engagements, joint exercises, and tactical training.[9] As experiences in Afghanistan, Iraq, and elsewhere have demonstrated, however, overdue emphasis on the tactical proficiency of security forces—whether military or law enforcement—without commensurate changes at the ministerial levels, or institutional levels, "undermined hard-won tactical gains."[10]

This tactical emphasis is curious given the necessity for developing the capabilities and capacities of supporting institutions explicitly stated in the definitions of the SFA found in both the DOD Instruction (DODI 500.68) and joint doctrine (Joint Publication [JP] 3-20). SFA, these documents state, is the full range of military activities that help to develop the capabilities and capacity of foreign security forces *and their supporting institutions* [emphasis added]. Typical activities include the professionalization of foreign security forces, but also include training, equipping, and advising foreign military and paramilitary units, as well as nonmilitary security elements, in order to advance U.S. interests in a region.[11]

The complementary and overlapping security assistance program of the SFA is known as FID. FID is what civilian and military agencies of the U.S. government do to help another government free and protect itself from subversion, lawlessness, insurgency, terrorism, and other threats to their security.[12] Like SFA, FID activities typically focus on training and advising host nation security forces. In a combat situation, SOF work with host nation forces to make them capable of operations without U.S. assistance. During peacetime conditions, training, advising, and assisting host nation forces can serve as a preventative measure that hopefully obviates the need for future combat operations. The difference between SFA and FID is that the former focuses on both external and internal threats to security, while the latter is internally focused and supports the host nation's internal defense and development plan.[13]

JCETs are military activities intended to support the continuation and sustainment training of U.S. SOF. Because SOF have the mission of training and advising foreign security forces during wartime, they need to train with partner forces during peacetime in order to enhance and maintain their core competencies: which include instructor skills, foreign language, intercultural awareness, advisory skills, and familiarity with foreign military equipment. The benefits accrued to host nation

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9. Victoria Stattel and Robert Perito, *Innovative Transformation: An Evaluation of the MODA Program in Afghanistan* (February 2012), 1; *Security Cooperation*, JP 3-20, (Washington, D.C.: The Joint Staff, May 2017), III-14.

10. "MODA's Class Nine Deploys," *Defense Security Cooperation Agency News Release*, n.d., accessed 24 January 2019, https://www.dsca.mil/news-media/news-archive/modas-class-nine-deploys.

11. DODI 5000.68, *Security Force Assistance* (27 October 2010); and *Security Cooperation*, JP 3-20.

12. *Security Cooperation*, JP 3-20, II-9.

13. Derek C. Jenkins, "Distinguishing Between Security Force Assistance and Foreign Internal Defense: Determining a Doctrine Road-Ahead," *Small Wars Journal* (2008), 2, https://smallwarsjournal.com/jrnl/art/distinguishing-between-sfa-and-fid.

forces from training and exercising with U.S. SOF are a natural, but incidental, outcome of the activities. Over time, continuous JCETs in a partner nation lead to strong relationships and positive changes in the capability and capacity of the host's security forces. JCETs are one tactical-level tool, among many, available to conduct certain elements of SFA and FID.

Current Issues with DIB

In the course of studying the OSD DIB efforts and programs, the RAND team identified three major challenges.[14] The first was the inherent complexity of the DIB enterprise. It is important here to take a slight diversion in order to introduce the difference between complex and complicated systems.

Complicated problems are predictable and the results repeatable. This characteristic allows for planning towards desired end-states using templates, battle books, and standard operating procedures (SOPs), etc. Complex challenges, on the other hand, are defined by human interaction, emotional decision-making, and continual adaptation. Complex, human-centric systems change based on influencing actions. Quantitative and methodical processes are of little utility when there is no quantifiable end-state and the concept of success is qualitative—based upon feelings and appreciation.[15]

Unfortunately, the RAND study's authors described a complicated system, one that is linear and predictable, although extremely challenging, characterized by overlapping policies, programs, management structures, and funding authorities. While RAND's observations were accurate, their definition missed the inherent complexity of DIB and the influence of human bias, perceptions, interests, and agendas. DIB is a complex undertaking because it must operate primarily in the human domain and deal with social challenges that defy mathematical modeling and prediction.[16]

What was understandably omitted from the RAND study was a discussion on the dangers of mirror imaging—security assistance programs that attempt to shape the host nation in a U.S. model. The omission is understandable given the contentious nature of this subject. U.S. policy makers have the reasonable expectation that host nations will follow Western standards for accountability, management practices, and apolitical security institutions. That expectation, though, belies centuries of indigenous history, tradition, culture, and practices that all create a sense of group identity, or, the unconscious mental models that define a society and help explain why organizations and

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14. Perry et al., *Defense Institution Building*, 181–182.

15. David J. Snowden and Cynthia F. Kurtz, "The New Dynamics of Strategy: Sense-making in a Complex and Complicated World," *IBM Systems Journal* 42, #3 (2003), 462-483; see also David J. Snowden, "The Cynefin Framework," posted by CognitiveEdge 11 June 2010, YouTube video, https://youtu.be/N7oz366X0-8.

16. As used in this paper, the human domain refers to the people who inhabit the physical regions where SOF are operating, but specifically focuses on the perceptions, decision-making, and behavior of those people as they are influenced by social, cultural, physical, informational, and psychological elements. United States Special Operations Command, "Operating in the Human Domain," *USSOCOM White Paper* (3 August 2015), 3.

governments act the way they do and think the way they think.[17] The ability to influence the rules, processes, and institutional behavior of a government (i.e., changing how power is exercised, resources and funding are managed, and citizens' interests are represented) takes time.[18] Moreover, changing a host nation's mental models may not be welcome and cause the opposite effect of what U.S. national goals desire. DIB programs must seek to balance traditional practices with desired behavior and institutional reforms. Unfortunately, episodic unit-level security assistance activities will improve individual and small unit effectiveness but have little to no effect on institutional reforms that ensure the long-term viability of U.S. security assistance efforts made possible through DIB programs at the national level.

RAND's second DIB challenge is directly related to the first—the impossibility of quantifying success. The study notes the measures of effectiveness in DIB are normally qualitative in nature and the hoped-for causal relationships between security cooperation programs and institutional changes may be impossible to determine.[19] For Western planners, advisors, and decision makers imbued with traditions of scientific theory and the supposedly rational mindset of national decision-making, the ambiguity and unpredictability of DIB can be maddening for senior leaders and their staffs. Too often, DIB assessments resort to symptomatic evidence, that is, measures of performance (MOPs) that lend themselves to quantitative metrics (e.g., number of graduates, shooting range accuracy scores, maintenance availability of aircraft, etc.). These sorts of assessments fail to address the structural and policy aspects of a partner's situation that the DIB program was created to address. Moreover, MOPs are of little use to gauge the effectiveness of programs to influence cultural and social mental models that must transform to achieve institutional change. As shown in the discussion of the Iceberg Model (fig. 2), MOPs that reflect the "tip of the iceberg"—that is the evidence and symptoms that are easily observed and quantifiable—have no effect on the underlying mental models that define a host nation, its practices, its way of perceiving reality, and how it engages in resourcing, training, and employing its force.

Identifying appropriate DIB partners and commensurate DIB activities constituted the third challenge identified by the RAND researchers. As the study described this challenge, it appeared to be the easiest one to address in large part because it lacked the complexity of the first and second challenges. Different methodologies among the CCMDs for selecting candidates for DIB, disconnects between U.S. agencies' priorities, and competition between DIB providers complicated the process of selecting DIB partners, but none of these were truly complex problems. Instituting a rules-based approach leading to common operating procedures and agreements for prioritizing partners and programs would go a long way towards improving the administration of DIB writ large.

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17. Ralph Jacobson, *Leading for a Change: How to Master the 5 Challenges Faced by Every Leader* (London: Routledge, 2000), 101–104.

18. Douglas Hurst, Bill Mandrick, and John McElligott, "A Governance Advising Framework for the Security Force Assistance Brigade (SFAB)," *Small Wars Journal* (2017), https://smallwarsjournal.com/jrnl/art/governance-advising-framework-security-force-assistance-brigade.

19. Perry, et al., *Defense Institution Building*, 143.

RAND reviewed and endorsed the process for selecting viable DIB candidates used by the Defense Institutional Reform Initiative (DIRI). DIRI developed a conversational process that reached out to as many interested parties as possible. DIRI's graphic representation of how it approached country selection illustrates its intentional process of consultations with the CCMDs, OSD, and the country teams (fig. 1). Partner selection orients on the center of the diagram, where the three U.S. stakeholders intersect with those countries willing and able to accept DIB programs.[20] RAND recommended creating a consultative process involving the OSD, the CCMDs, country teams, and ultimately, the

Figure 1. DIRI methodology for selecting DIB partners. SOURCE: AUTHOR

partner nations and offered a viable approach for overcoming the challenge of selecting DIB partners and appropriate activities.[21]

In 2017, the Center for Complex Operations (CCO) at the National Defense University published a collection of essays, *Effective, Legitimate, Secure: Insights for Defense Institution Building* to deal with the dearth of thinking, writing, and analysis dedicated to the emerging practice of DIB.[22] Where the RAND study was constrained to evaluating programs and authorities then on-going in the theaters and USSOCOM, CCO was able to offer deeper insight and analysis because it was an academic undertaking that incorporated interagency, nongovernmental organizations, and international perspectives, filling gaps in the research that RAND's study did not consider. The conclusions reached by the editors as a result of the CCO authors' research and analysis were similar to RAND's: (1) institutional transformation is a long-term effort; (2) DIB programs and activities do not fit into templates and thus must be molded to the unique cultural, historical, and sociopolitical context of the intended partners; and (3) the partners' interests, capabilities, and willingness to change are tremendously important planning factors.[23] This study was much clearer than RAND about the criticality of the human dimension epitomized by the phrase found in the conclusion that "the partner's existing culture is the starting point."[24] This glimpse into the importance the authors placed on the human domain suggests a unique insight into the core requirement for successful DIB

20. Perry, et al., *Defense Institution Building*, 56.

21. Perry, et al., *Defense Institution Building*, 73.

22. Alexandra Kerr and Michael Miklaucic, eds., *Effective, Legitimate, Secure: Insights for Defense Institution Building* (Washington, D.C.: National Defense University, 2017), https://cco.ndu.edu/News/Article/1385447/effective-legitimate-secure-insights-for-defense-institution-building/.

23. David A. Cate, Alexandra Kerr, and Renanah Miles, "Conclusion," in *Effective, Legitimate, Secure*, eds. Kerr and Miklaucic.

24. Cate, Kerr, and Miles, "Conclusion," 367.

and how design-thinking tools can be helpful for planners who are normally firmly rooted in the linear world of military planning.

Querine Hanlon and Robert Perito's article, "DIB in the Broader Security Architecture," emphasizes that U.S. DIB programs may bring internal and external risks to a receiving nation needing to manage the perception of its relationship with the United States.[25] Planners need to research and be cognizant of any possible consequences of reforms initiated by the U.S. that might threaten key actors' status, prestige, incentives, or power base. The authors' perspective serves as a clear illustration of the inherent complexity of DIB—the impact of personal motivations and self-interests competing with or affecting institutional programs intended to improve security and thus impact the overall prosperity of a receiving nation.

Similarly, former-Deputy Assistant Secretary of Defense Thomas Ross, Jr.'s article, "Defining the Discipline in Theory and Practice," used a review of the Malian Army's performance against al-Qaeda -sponsored rebels in 2012 as a case study to illustrate the necessity of robust and consistent DIB programs. Despite a decade of U.S. training, equipment, and support, Tuareg rebels seized almost 60 percent of the country. The conventional wisdom and social media narrative would have one believe that the Malian Army (*Forces Armées et de Sécurité du Mali*) was roundly defeated by a motley crew of militants. What was not brought out in news reports was the flawed defense institutions that failed the soldiers and units defending their nation. Soldiers ran out of ammunition and food because the logistics system could not sustain them. Stocks of U.S.-provided equipment were inoperative because the maintenance system failed. Furthermore, training and leadership among conventional units was inconsistent and mismanaged due to a flawed human resource management system.[26]

The conclusions Ross reached were that institutional change required persistent and cooperative efforts to identify shortcomings, develop potential solutions, and then the adjustment of solutions during implementation based on the dynamic circumstances that continuously (re)defined the changing environment.[27] While true, what Ross overlooked was that U.S. and international security cooperation efforts with Mali had focused on the tactical-level engagements, training, and activities. The unit-oriented approach to helping Mali created competent tactical units but failed to influence change at the structural and political levels, and thus had little effect on the cultural and social mental models that drove Malian institutions. The battlefield defeats and loss of

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25. Querine Hanlon and Robert M. Perito, "DIB in the Broader Security Architecture," in *Effective, Legitimate, Secure*, eds. Kerr and Miklaucic.

26. Thomas W. Ross, Jr., "Defining the Discipline in Theory and Practice," in *Effective, Legitimate, Secure*, eds. Kerr and Miklaucic, 21–22.

27. Ross, "Defining the Discipline," 30.

territory were the price Mali paid for not addressing institutional reforms at the same time and pace of its tactical reforms.

Jeanne Giraldo's article, "Assessment and Program Design," contrasts DIB practices with traditional models of program design and assessment. Giraldo, the founding program manager of the DIRI, noted that institutional reform is fundamentally political reform that has the potential to alienate powerful stakeholders in a government. She illustrates how the very real human traits of self-interest and self-preservation might create powerful internal actors who benefit from the status quo and therefore oppose institutional reforms that change the bases of power. Giraldo recommends an informed political-economic analysis as part of a DIB program's initial design.[28] The challenge for most DIB providers, though, is that tactical-level units and programs rarely conduct or see the value of strategic-level political, social, and economic analyses. This begs the questions: Who should examine the political-economic aspect, and who determines how to hold the partner nation responsible for institutional change? To be fair, these questions were beyond the scope of her chapter, but still must be addressed moving forward.

Giraldo's second major point is to caution against a checklist approach to DIB planning based on lessons learned from past security assistance efforts. She contends that the majority of security cooperation and assistance communities in both the U.S. Departments of State and Defense still base their program design efforts on best practices and lessons learned.[29] "Checklists and templates," she says, "can prescribe specific and sequenced steps for addressing complicated technical problems … they are less appropriate for complex problems like institutional reforms, in which human beings are involved and the context significantly affects results."[30] Giraldo advocates a methodology that echoes a design-thinking approach to DIB program design.

Two overarching doctrinal publications are also important in this regard. Both the DOD directive (DODD) 5205.82, *Defense Institution Building*, and the JP 3-20, *Security Cooperation*, were published in May 2017. They offer definitions of DIB that emphasize the strategic nature of the program and articulate the goal of establishing or reforming partner nations' ministerial-level defense institutions.[31] The DODD is a relatively short document that establishes policy to guide U.S. defense organizations and agencies participating in DIB, while the JP is a much broader document that addresses the full range of security cooperation programs from tactical through strategic levels. Both are necessarily broad in scope but provide a consistent policy and guidance message that is useful to the Services and combatant commands as they promulgate procedures for DIB planning, program design, implementation, and assessment. The Services and USSOCOM use the DODD and JP to create domain specific (i.e., air, land, maritime, and special operations) doctrine, tactical procedures,

28. Jeanne Giraldo, "Assessment and Program Design," in *Effective, Legitimate, Secure*, eds. Kerr and Miklaucic.

29. Giraldo, "Assessment and Program Design," 76.

30. Giraldo, "Assessment and Program Design," 78.

31. *Defense Institution Building*, Department of Defense Directive 5205.82 (Washington, D.C.: Office of the Under Secretary of Defense for Policy, January 2016), 13; *Security Cooperation*, JP 3-20, GL-5, offers a truncated version of the DOD Directive's definition.

and operating procedures for delivering security cooperation programs. Security cooperation providers then apply Service planning processes to develop and resource their events and activities.

Unfortunately, as the literature review reveals, many of the episodic engagements, exercises, and unit-level training opportunities tend to not be harmonized with the strategic-level plan for the partner nation and the institutional reforms necessary to sustain the tactical-level improvements. That is, budgets, maintenance programs, human resourcing, spare parts, etc. are not addressed and sad episodes like what happened in Mali in 2012 can occur.

Overall, the focus on DIB has proven to be a positive one by the U.S. because it has generally helped ensure the funds, resources, and people invested in tactical-level security assistance programs were sustainable over the long term. Whether DIB has also achieved its additional goals of increasing transparency, improving governance, and increasing efficiencies among partner nations remains to be seen. Organizational and institutional bureaucratic changes take time, often years, to implement and evaluate. Transformations that also seek to change culturally-based and traditional practices, while also breaking precedents, may take generations.

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Design-thinking techniques, on the other hand, consciously enable country-appropriate approaches for developing comprehensive security cooperation plans that synchronize structural and political changes with tactical events, while addressing and influencing the cultural and social mental models. The SOCOM Design Way (SDW),[32] for example, has proven to be one viable design-thinking methodology.

DIB Through a Design-Thinking Approach

In 2015, USSOCOM proposed an adaptation of the design-thinking efforts then on-going in industry, academia, and the military to address the complexity and interconnectedness of the modern operating environment. The result of that effort was the SDW[33]—a unique application of the design-thinking principles that had been developed to foster creativity, critical thinking, and innovation among those communities.[34] SDW demonstrated its utility in helping staffs at USSOCOM and subordinate commands deal with some of the personal and organizational blinders preventing planners and decision makers from seeing beyond the tangible evidence, and to address the underlying causes of complex, social-based challenges, (i.e., problems in the human domain). It is important to note that SDW is but one of many different design-thinking approaches. Its utility is that it was intentionally designed and developed for the SOF enterprise. The author acknowledges

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32. See David C. Ellis and Charles N. Black, *Complexity, Organizational Blinders, and the SOCOM Design Way* (Tampa: Joint Special Operations University Press, 2018).

33. Ellis and Black, *Complexity, Organizational Blinders*.

34. Charles N. Black, Richard D. Newton, David C. Ellis, and Mary Ann Nobles, "U.S. Special Operations Command's Future, by Design," *Joint Forces Quarterly* 90 (2018), 43.

that there are other design-thinking tools that are better suited to complex problems in other functional areas.

SDW went beyond standard military planning practices and operational design doctrine.[35] Like many similar design-thinking models, it is comprised of three elements: Appreciate the Context, Define the Problem, and Develop an Approach, all of which operate in the realm of open systems. In human behavioral terms, open systems are those where people learn, adapt, and transform to take advantage of opportunities and overcome unexpected obstacles—a critical element when designing and developing DIB programs appropriate for each host nation's security sector and institutional environment. Conversely, closed human systems are isolated from their environments, either by circumstance or by choice, and are unable or unwilling to learn, adapt, and transform when faced with complex challenges. When faced with inherently human problems, (i.e., those driven by emotion, feeling, fear, perception, culture, or self-interest), linear, mathematically-based processes that seek predictable and repeatable results often break down. In situations such as these, tried and proven processes for addressing complicated challenges such as the Military Decision-Making Process (MDMP) and Joint Planning Process (JPP), are left wanting, usually with catastrophic results.[36]

The first element of SDW is appreciate the context. This is the most important phase and the one that consumes the most time. The intent of appreciation is to synthesize diverse and often divergent perspectives, experiences, and personalities in order to produce a comprehensive visualization of an issue or situation.[37] Design-thinking values and encourages diverse and divergent thinking when dealing with human-centric challenges like DIB because of the impossibility for one individual or organization to fully comprehend all aspects and nuances of a complex environment. Experience gained during applications of design-thinking to real operational and organizational challenges has shown that successful design teams are those that intentionally recruit and include participants who bring unorthodox and unconventional experiences and perspectives to the effort.

When dealing with complex open systems, the focus of exploration should be on why a system is doing what it is doing, why trends are moving in a particular direction, and how actions might be adjusted to change the system's behavior. The Iceberg Model (fig. 2) has proven to be one of the most useful tools to help design-thinking teams address the mental models that drive human interactions and influence changes in the structures of human lives and the patterns and trends that define the character of societal groupings.[38]

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35. Operational design is the process of constructing a framework for operational planning. It is based upon developing a quantifiable and rational understanding of the operational environment based upon doctrine and commander's guidance. *Joint Planning*, JP 5-0, (Washington, D.C.: The Joint Staff, June 2017).

36. Black et al., "U.S. Special Operations Command's Future," 45.

37. The term, "appreciation," was intentionally chosen by the team, over "understanding," in order to place the planners and staff analysts into the human domain. Where *understanding* is rooted in the cognitive realm and implies quantifiable metrics and predictability, appreciation leads one to the human domain and affective influences of emotion, feeling, and perception.

38. Black et al, "U.S. Special Operations Command's Future," 45.

Most humans tend to base their decisions on the "tip of the iceberg," those tangible or assumed pieces of evidence that provide measurable data that supports, or can be manipulated to support, preconceived hypotheses or opinions. People usually act and respond to events and evidence they can see and measure. Pointed out earlier, security assistance programs also tend to focus on the MOPs and quantifiable evidence as they define and assess a situation. For example, symptoms such as host nation units being unable to conduct effective combined arms fire and maneuver or not being capable of generating sufficient aircraft sorties to meet the needs of infantry units during operations, are easily observed, measurable, and relatively simple to fix. Problems such as these lend themselves to short-term, unit-level training events.

When the subject is human, or the situation is rooted in the human domain, then design teams need to look below the surface, asking why the evidence or symptoms are what they are. The first level below the surface includes the host nation's doctrine, SOPs, and other rules that determine how the units operate, what their standards of performance will be, and how resources are distributed. Often, it is possible to find rules-based explanations for lack of training time, materials, spare parts, and working hours that led to ineffective infantry units or substandard aircraft maintenance practices.

The next level down examines the organizational structure, laws, and relationships between organizations that resulted in the doctrine, SOPs, and rules that drive unit functions and effectiveness. Just as in the U.S., partners and allies' security institutions create organizations and develop relationships to overcome indigenous institutional challenges. Understanding those challenges can help explain why doctrine, SOPs, and rules are what they are.

At the bottom of the iceberg is the foundational element—mental models, or those unconscious habits, assumptions, and perspectives that determine how partners think and act, and why they believe what they believe. These are the beliefs and value systems that are ingrained in humans from birth due to faith, culture, tradition, history, parenting, etc. The structures of human existence—be they tribes or clans, organizations, or the laws that govern a society—are derived from the mental models. These mental models help to explain why Western society is so different from Eastern society, but also why someone from New York City thinks differently than his or her counterparts from rural Mississippi. Doctrine, SOPs, and rules set the observable standards for human groupings and govern acceptable and unacceptable behavior. Thus, when observing, researching, and assessing a social group or a partner nation, one needs to look beyond the events and symptoms to delve into the patterns and trend, structures, and mental models that caused the events, symptoms, and evidence to exist. The Iceberg Model helps to explain DIB partners' paradigms.

The structures of human existence—be they tribes or clans, organizations, or the laws that govern a society—are derived from the mental models.

Most tactical training events provided under the umbrella of SFA and FID address the tip of the iceberg—the evidence and symptoms of unit-level problems (fig. 2). The U.S. military made this part easy because they created military organizations whose job it is to solve tactical level

problems. With the emphasis on DIB, the U.S. has had to create new programs such as the MODA, that are better able to influence doctrine, SOPs, and rules, while helping the host nation address their organizations, laws, and relationships at the national level. Thinking back on the earlier discussion of mirror-imaging, design-thinking practices using tools such as the Iceberg Model encourage the host nation to transform in ways that are appropriate to their national situation and hopefully, in the process, create new institutions that are better able to accept and absorb U.S. assistance, and eventually stand on their own without U.S. help.

Figure 2. The Iceberg Model with associated assistance to foreign militaries. SOURCE: USED WITH PERMISSION FROM DAVID C. ELLIS AND CHARLES N. BLACK/GRAPHIC MODIFIED

The individuals comprising a design-thinking team normally begin by offering observations and perspectives related to the issue or situation being considered. Practically speaking, someone from the team is capturing these observations. An unrelated, and hopefully impartial facilitator, who is also not one of the sponsoring organization's senior leaders, provides the useful role of ensuring all participants' perspectives are heard and included. This is an important consideration when dealing with the military and other intentionally hierarchical organizations that must deal with complex challenges. In such situations, junior personnel can be reluctant to offer contributions that differ from their bosses or from the party line. In today's hyper-connected and youth-oriented world, however, it can be a mistake to exclude the junior participants as they are often able to offer insights into mental models that older, established analysts might reject. Additionally, younger participants are less likely to seek templates and proven processes if empowered to design innovative approaches. The successful facilitator establishes an environment where all participants feel empowered to contribute.

Once the group's initial observations have been recorded, a facilitator can help the team reflect on their initial work and further explore the situation. The initial product from this effort is the initial frame—a visualization of the situation or issue. Experience has shown this initial framing tends to be pretty conventional in its perspective and usually reflects official policy and the organization's common practices. This is where diverse and divergent perspectives become so valuable to DIB. Successful design teams use the group's initial, conventional frame as a starting point to expand the appreciation and explore any unstated conditions and overlooked opportunities. By embarking on a cyclical process of appreciating—framing—reflecting—reframing, the design-

thinking team is able to update the host nation's appreciation as the situation or issues continue to evolve, which is an inherent characteristic of human-centric challenges. In complex social situations, there is rarely a stopping point. Instead, one should expect a succession of new beginnings based upon the design team's constant learning through exploration, reflection, framing, and reframing in the journey to an acceptable future state.[39]
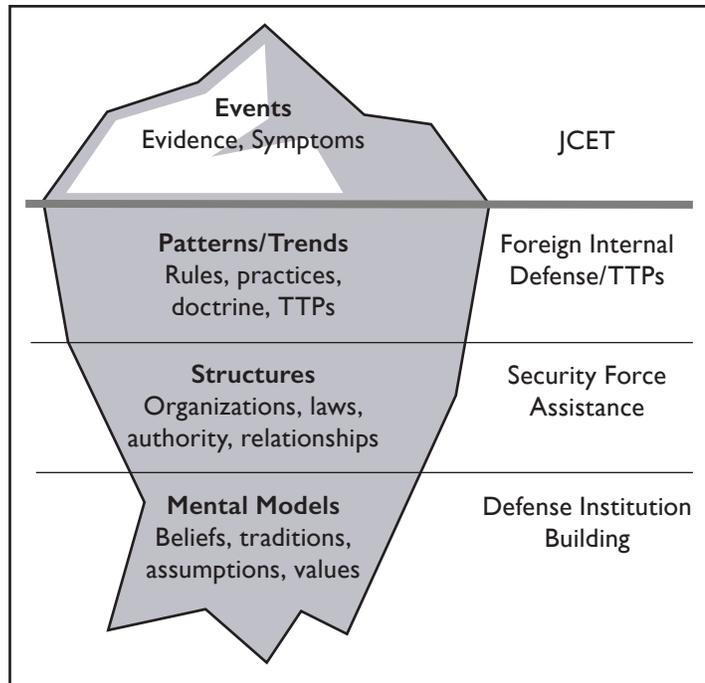
Design-thinkers reject the notion of a desired end-state—a singular, predetermined concluding point—when considering a complex situation. Instead, they prefer to nudge the organization towards a range of acceptable future states, accepting the reality that human challenges never really end. They reach an acceptable level of consequences, or some form of "good enough." For example, it is highly unlikely that big city crime will completely cease. Therefore, planners and officials strive to achieve the level and types of crime that a society will accept. The same logic holds true for military situations and DIB. It would be impossible for U.S. planners to develop a DIB strategy for a host nation because vast hidden assumptions could not be known prior to engaging in the process. A design-thinking foundation takes this discovery as a baseline effort that then empowers host nation personnel to navigate its culture and bureaucracy for more positive interventions.

At the conceptual level, an end-state can serve a valuable purpose, especially when dealing with linear or complicated challenges that have clearly defined objectives and predominantly known variables. With complex human challenges, though, not all variables can be known, human behavior challenges mathematical modeling, and effective dynamic decision-making, (i.e., based on hunches and gut-feel) frustrating military leaders and civilian officials who need quantitative decision aids.
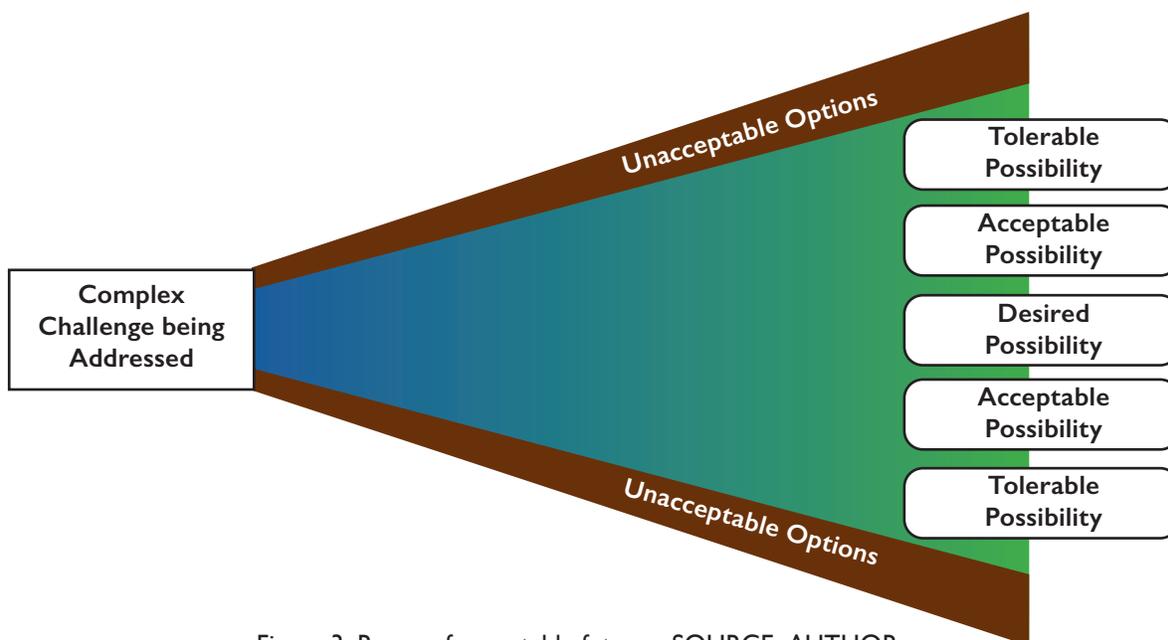
Figure 3. Range of acceptable futures. SOURCE: AUTHOR.

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39. Charles N. Black, Tracy Moss, Christopher Phelps, and Richard D. Newton, "Design Thinking for the SOF Enterprise," *United States Special Operations Command White Paper* (29 January 2016), 2.

With complex human challenges, there is no easily determined end-state. Thus, design-thinkers use an alternative construct, the range of acceptable futures, (fig. 3) to orient the design team's efforts. Metaphorically, the team is oriented towards a cardinal direction vice a precise GPS point. If one accepts that future social conditions, personnel changes, and politics are unknowable and thus unpredictable, then basing success on a single, definable objective promises a high probability of organizational failure. Like an end-state, the range of acceptable futures tool orients the design team towards a desired future. But it is not a vector with specific direction plus time and resource constraints. Instead, it is an initial heading and future course headings, and subsequent events will become known, as physical, cognitive, and affective influences on the system are discovered and dealt with as they arise.

At some point, though, an organization employing design-thinking must act. The SDW version of design-thinking methodology encourages action when dealing with complex situations. David Snowden suggests that when faced with complex situations, one probes the system, senses how the probing actions influence the system, and then responds by reinforcing desired behavior or dissuading responses that may lead to an unacceptable future state.[40] In the complex environment of DIB, the partner nation's institutions will continue to adapt, new actors will appear, previous actors will disappear, and conditions will change over time. Opportunities for continual adjustment and refinement will abound, seeming to validate the probe—sense—respond system of dealing with complex, human-centric challenges such as DIB.

Once the design team reaches the point that they have sufficient appreciation of the context, (e.g., the current situation), the members have agreed to a range of acceptable futures, and they have identified the initial obstacles (policies, budgets, manpower, equipment, mental models, etc.) that prevent the system from moving towards an acceptable future state, they should transition to defining the problem. The resulting problem statement is based upon the design team's revised understanding of the situation. Deep and comprehensive learning during the appreciation stage significantly increases the likelihood that DIB program designers will address the correct mental models and structural problems the partner nation is facing so that U.S. planners can have sufficient knowledge to develop an approach that will stimulate the system to action.

In the third phase, a design team creates a concept that will exert influence on the system and encourage it to move from its current condition towards an acceptable future condition. The approach stage takes the form of a broadly written narrative and is usually accompanied by a visualization that will later help guide DIB planners as they develop the documentation—operations plan, campaign plan, theater security cooperation plan, etc.—needed to implement appropriate security sector reforms using security cooperation tools. The approach stage may take the form of a doctrinally correct Commander's Guidance (purpose, tasks, desired future state, acceptable risk, etc.) or, alternatively, a simple document that articulates the strategic-level goals, unacceptable future conditions, and the approach to be used in order to move the system towards the range of acceptable

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40. Snowden, "The Cynefin Framework."

future conditions. What follows is a case study of a successful, albeit still ongoing, DIB effort that illustrates how design-thinking helped to facilitate a partner nation's SOF transformation.

Practical Application of Design-Thinking to DIB: The Case of Romania

Romania is one of the United States' staunchest allies in Eastern Europe. It has been among the first to answer U.S. calls for troops and capabilities to support coalition operations. Romania's strategic position on the Black Sea, south of Ukraine and only 400 km from Crimea, makes it a priority country for the U.S. in an era of growing Russian aggression. Beginning in 2016, facilitators from USSOCOM were invited to assist the Romanian Chief of the General Staff (CGS) during a design-thinking inquiry aimed at organizational transformation of Romanian SOF. This initial inquiry lasted about nine months, during which a team of Romanian special operators, headquarters staff officers, and special operations enablers used design-thinking tools to explore, frame, reflect, and reframe their appreciation of Romania's strategic situation and the role and structure of their SOF. With the CGS team, the USSOCOM design team conducted seven 1- to 2-week iterations/working groups to develop the team's appreciation of the context. The U.S. SOLO to Romania was a full participant in the process.

As expected, the initial stage of the inquiry considered the organizations, performance, and practices of Romanian Special Forces—all tangible and easily measured indicators of performance. The CGS and his advisors felt improvements were desirable and possible, but he wanted to take a systemic approach before considering any changes. Individually and as small units, Romanian land and maritime SOF (ROUSOF) had proven themselves capable partners during coalition operations. Over the years, the U.S. had invested, through security assistance programs, in an ongoing series of training, education, and exercise programs with their SOF counterparts in the Romanian Land Forces, Navy, and Air Force. Additionally, the U.S. had provided equipment and corresponding training to improve the tactical capabilities of ROUSOF units. While these event-driven activities certainly strengthened the relationship between U.S. and Romanian units and individuals, they were squarely focused at the tip of the iceberg. Training, equipping, and exercises did little to influence the doctrine, SOPs, rules, organizational structures, and policies governing ROUSOF. In fact, it was outside the U.S. units' assigned missions to do more than train, exercise, and operate with their counterparts on specified tactical scenarios.

The CGS was seeking appropriate institutional-level changes that would transform the way ROUSOF could be employed in the defense of Romania, but that would also lead to a more capable and effective force during Romanian contributions to international operations and exercises. Thus, he asked the SOLO for U.S. help to examine and consider partner capacity building at the headquarters and Service levels; that is, he wanted help transforming Romanian defense institutions.

Between each iteration participants were given homework—specific topics to research and explore. Each time the design team reassembled, the results of the members' research were shared and adjustments made to the group's collective appreciation of the context. The participants' iterative

research and contributions to group understanding helped broaden and deepen the design-thinking team's knowledge and appreciation of Romania's political, geographic, organizational, and security context. It was very much a comprehensive approach. During each iteration of the design inquiry, as the participants sought understanding, they also created new questions, as research often does, that when also researched ended up leading to even deeper appreciation of Romania's aspirations and challenges. At the CGS's insistence, the design-thinking team broke out of its comfort zone to develop a joint Romanian appreciation. Among the unexpected findings uncovered during their appreciation of the Romanian context were significant obstacles based upon legacy compensation and training systems that had not been modified after Romania changed from a conscript to an all-volunteer military—very deeply entrenched mental models, indeed.

Romanian defense officials at the time identified low base pay as one of the challenges they were dealing with. Like most militaries, Romania offered incentive and hazardous duty pay to soldiers and sailors who qualified for and maintained their status in certain high-risk military skills. These typically include static line parachuting, military free-fall parachuting, explosives/demolition, and combat diving for example. Special operators in Romania, like their counterparts in Europe and NATO, were often the beneficiary of these incentives. These facts were among the evidence that design team participants identified as being at the tip of the iceberg. As they looked at the doctrine, SOPs, and rules associated with incentive pay, they discovered that unlike other militaries, Romania paid incentives by the event. In other words, there was no proficiency standard for say, parachuting. In most Western militaries, there is a minimum number of parachute jumps required to be considered qualified and current for combat parachute operations. Once a soldier has accomplished the minimum number of parachute jumps, she or he receives the incentive pay prescribed by statute. In Romania, however, the more jumps one made the more money could be earned. Given the low base pay, it was not a surprise that parachute qualified soldiers and sailors jumped often, sometimes 3–4 times as often as their counterparts in other NATO nations. A similar phenomenon was found for combat divers—the more dives made, the higher the incentive pay. The unintended consequence of such an incentive system was that other tactical training tasks were valued as less important than parachuting and diving. The design team identified the management of incentive pay as a structural obstacle to the creation of a highly credible, joint special operations command in Romania.

The unintended consequence of such an incentive system was that other tactical training tasks were valued as less important than parachuting and diving.

Another symptom the team uncovered was the low rate of success for initial-entry recruits into SOF. Special operations training is intentionally challenging, but Romania's accession rates were so low that the units could not sustain the losses due to normal attrition—change of career choice, retirement, injuries, etc. As the design team researched the systems and structures that governed SOF qualification training, they discovered obstacles based on the legacy mental models that had been overlooked or ignored when conscription was abolished in 2005.

Under conscription, there were more recruits and candidates than could be absorbed into the Special Forces. The qualification training ethos prior to 2005 had been to eliminate as many

Figure 4. USSOCOM facilitators and Romanian CGS conduct a design-thinking inquiry. SOURCE: AUTHOR

candidates as possible. Physical standards were set impossibly high and at times considered harsh. Many desirable candidates were lost to SOF because they got hurt during training and Romania had no system available to rehabilitate and recycle good people back into the training pipeline. The approach that the design team eventually developed led to a joint SOF initial qualification school for both land and maritime SOF, with physical training, rehabilitation, and coaching programs included in the new institutional structure to ensure highly promising candidates were not lost due to circumstances beyond their control.

As the design team explored these and other challenges to transforming Romanian SOF, they discovered that many of the practices and processes (patterns, from the Iceberg model) governing recruiting, training, incentives, and organizational structures were codified in law or regulations (structures, from the Iceberg model). Some of the rules could be changed by the CGS, while others needed support from the legislature—obstacles and opportunities that helped the team develop a Romanian approach to transform their SOF into a joint, strategic force with commensurate headquarters functions—policy, resourcing, budgeting, etc. What resulted from this first design-thinking effort was a Romanian SOF Command, a joint command with operational and peacetime authorities over both land and maritime SOF. With U.S. and NATO support, and based on the fruits of the USSOCOM facilitated design inquiry series, DIB programs were developed and implemented. Two years later, the initial results have been promising and Romania continues to use design-thinking techniques to address its most difficult challenges.

In July 2018, the CGS requested support from USSOCOM to continue the design-thinking effort and to facilitate a second design inquiry series. The challenge this second time was to address recruiting and retention issues that were preventing sufficient numbers of otherwise qualified

candidates from volunteering for ROUSOF. Romania's SOF predominantly recruit from the existing forces. They also recruit from the general population, but with fewer numbers of qualified candidates. The Romanian military overall was below authorized end-strength and their current accession programs were not closing the gap. Compounding the recruiting and retention problem was the perception that law enforcement agencies in Romania were "stealing" the best people after the military had invested in their initial and follow-on training.

Going into the first recruiting and retention workshop, the participants were strongly focused on two primary symptoms: (1) recruiters and recruiting programs were severely underfunded and undermanned, and (2) the Ministry of Defense (MOD) could not compete with law enforcement agencies for recruits because of differences in pay and incentive schemes. They were adamant that the problem was money—an assumption clearly based on tip of the iceberg evidence. As the Romanian design team explored below the tangible evidence and questioned their assumptions, beliefs, and perceptions, their appreciation of the situation significantly changed and correspondingly, so did their definition of the problem.

Once again, the design team found legacy practices, rules, processes, and attitudes that had barely evolved since the elimination of conscription. For example, physical fitness standards for entry to basic training were intended to eliminate candidates instead of setting a minimum standard for entry with the intention of using basic training to improve the candidates' fitness over time. Marketing programs aimed at 18-to-25-year-old males emphasized patriotism, stability, and job security—themes that were less attractive to young people than the opportunity to gain 21st century skills and knowledge in the civilian sector. The team also came to realize that their target audience was too constrained; by focusing primarily on males they were not considering the potential contributions of women. Moreover, young Romanian men and women were motivated by the opportunity to gain technical skills that would prepare them for good paying jobs rather than patriotism, stability, and job security. The MOD had not taken advantage of the government's recent decision to transform the military into a highly-technical force—a theme that would have played well with potential tech-savvy young people looking for education, training, and experience they could parlay into future civilian jobs.

By the close of the second phase of the recruiting and retention inquiry, the team's appreciation of the context had evolved to the point that they began defining a problem. What they came up with was completely different from the strongly held opinions they had held at the start of the design inquiry. All the organizational, cultural, and social obstacles they had identified and refined during the iterative process of exploration, framing, reflection, and reframing, became contributing or supporting factors to the one major obstacle that had not been known before—Romania did not have a recruiting problem, they had a training capacity problem.

After all physical, medical, and psychological screenings of potential candidates were completed there were approximately 3,500 qualified candidates, both male and female, ready and willing to join the military. Basic training, though, could only accommodate 2,500 candidates per year. One thousand qualified candidates who wanted to serve were lost each year because the system could

not get them into basic training. While changing fitness entry standards, reorienting marketing programs, and changing recruiting incentives would in all likelihood increase the number of qualified and willing candidates, Romania would still be unable to reach its 80,000 person target until it addressed its basic training bottleneck. With the correct problem now identified, Romania and the U.S. began collaborating to develop appropriate DIB programs to change legacy processes and practices, but also increase throughput while maintaining quality at Romania's basic training facilities.

The third design inquiry series in Romania began in September 2018. The question the design team was asked to address was how the Romanian Air Force (ROU-AF) should provide appropriate air power to ensure ROUSOF could accomplish its strategic mission while still meeting its assigned national defense tasks. This stage of Romania's design journey was a bit different from the other two in that air power, in nearly every nation, tends to be tied to equipment issues. Air

> *This stage of Romania's design journey was a bit different from the other two in that air power, in nearly every nation, tends to be tied to equipment issues.*

forces are necessarily technological services because of the science and engineering required to sustain aerial flight. Therefore, observations and reflections about transforming air forces normally center on aircraft and flight-related equipment such as night vision devices, defensive systems, and range extenders (aerial refueling or forward area refueling points). It is generally difficult for airmen to consider special air operations within the human domain (i.e., how to be unconventional and innovative in the third dimension with existing equipment in order to act in ways unexpected by the adversary). Because the air capabilities of U.S. SOF are among the most technologically sophisticated in the world, potential partners willing and wanting to create their nation's special air operations capabilities aspire to mirror-image U.S. capabilities.

During the first three design-thinking workshops, conducted between September 2018 and February 2019, the ROU-AF team used design-thinking tools to critically examine their current situation; reflect on the strategic mission requirements of ROUSOF; frame acceptable and unacceptable future states; and identify the structural, procedural, and regulatory obstacles that hampered their ability to develop a Romanian special air operations capability. Like their land forces and navy counterparts during the earlier ROUSOF design inquiries, the ROU-AF began with their leadership's stated end-state: the minimum special air operations capability specified by NATO— one special operations air task group (a unit-level headquarters element) and three special operations air task units (SOATUs) (two rotary wing SOATUs of two helicopters each, and one fixed wing SOATU with a single transport airplane).

The mental models that had guided their organizational structures and drove their doctrine and rules were based upon legacy policies and basing schemes. As the team explored the ROU-AF situation, they discovered that the limitations on their ability to meet proposed mission requirements were not based upon the capabilities and numbers of their helicopters and transport aircraft. Rather, the air force's efforts to transform and create a dedicated special air operations capability

were hobbled by peacetime regulations and training policies that minimized risk at the expense of operationally realistic training.

For example, they were not allowed to refuel their helicopters with the engines running ("hot gas") nor were they allowed to train for forward area refueling at night, which would extend the employment range and operational capabilities of their helicopters. Both of these procedures are relatively commonplace for other NATO air forces that have learned to mitigate risks through training and operationally relevant regulations. As a result of the first three iterations, the ROU-AF team asked the U.S. to assist with developing fast rope insertion/extraction system and forward area refueling point system capabilities. These relatively minor, incremental changes were envisioned as catalysts that would influence joint training opportunities with Romania's land and maritime SOF, demonstrate the ability of the ROU-AF to mitigate and manage risk, and take the first steps towards achieving the special air operations capabilities needed in support of the ROUSOF strategic mission.

Follow-on iterations are planned to determine the appropriate organizational structure for whatever the Romanians determine their SOF air force needs to be; the command and control relationships needed for peace, operations (NATO, European Union, United Nations, etc.), and wartime; any training programs that will help create and sustain their air capabilities; and appropriate manpower/personnel policies, budgets, and future aircraft.

Over the past three years, Romania has used design-thinking tools to critically examine their institutions, programs, regulations, and mental models. The process of designing a Romanian approach to DIB was neither fast nor easy, and it is still not over. But what design-thinking has yielded was buy-in from a valued partner nation and high confidence from the U.S. that DIB investments made in Romania are most likely money well spent because they reflect viable, enduring structures. Engagement in the design inquiries by the SOLO, representing both SOCEUR and the U.S. security cooperation office, meant the approaches the Romanians developed will exert positive influences on the tactical level assistance and advisory events used to support DIB at the Services and joint commands, while remaining consistent with the United States' strategic-level goals in the region.

Why Take a Design Approach to DIB?

In the frenetic environment after the terrorist attacks of 9/11, little effort was expended during U.S. security cooperation efforts to fully appreciate our partners' strategic environments or establishing long-term approaches to regional security and stability. Often, the U.S. took a tactical/quick-win approach that in the worst cases led to mirror-imaging—U.S. officials telling partners they needed to "look" like the U.S. if they wanted to operate together or become the recipient of U.S. equipment, training, and funding. U.S. security cooperation has consequently skewed heavily towards incentivizing partners with U.S. equipment, training, and funding so that they will contribute troops, and their "flag," to U.S.-led security coalitions in the Middle East, Afghanistan, East Africa, West Africa, and elsewhere. This rather short-term approach has reaped short-term gains, but has often left less well-off partners dependent upon and at risk of U.S. strategic capriciousness.

The trend seems to be changing, though—at least the early signs are positive and encouraging. Since 2010, the security cooperation trend has been towards DIB, intentionally shifting the emphasis towards the national level by creating, transforming, or bolstering the institutions in partner nations who want U.S. help, are able to accept the help, and are willing to contribute to U.S. and regional security goals and objectives. The new direction in security cooperation emphasizes effective organizations, comprehensive security planning, responsible spending and resource allocation, and responsible governance, over individual or unit-level capabilities.[41]

It is important to take a moment to discuss what is meant by capability, capacity, and performance when it comes to security cooperation programs. In general, the three are related and necessary, but different concepts. A nation's capability can often be measured in quantitative terms by assessing education levels, current equipment and availability rates, unit manning levels, throughput at training facilities, and personnel qualifications and currency rates. Capacity, though, is much more contextual. When assessing a partner's organizational structure, institutional silos, relationships (NATO, bilateral, interministerial, etc.), regulations, laws, traditions, and strategic environment, one must be more subjective and thus qualitative in perspective. Capability is the visible and most quantitative type of evidence to measure. In other words, capability is what a potential partner can do. Capacity, on the other hand, answers why a partner acts in particular ways in terms of the laws, regulations, traditions, legacies, etc., that cause the system to be what it is and do what it does. The most contextual of assessments, however, is performance, especially when evaluated over the long term.

Capability is the visible and most quantitative type of evidence to measure.

When assessing a potential partner's performance, one must consider how people are used to achieving a nation's national goals. There is a litany of factors that affect the ability of humans to perform to standards including training, attitudes, resources, recency, and motivation. As is well known, the ability to perform a skill to very high standards requires constant practice. It is possible to measure how many sorties pilots have flown, the number of tactical jumps by each paratrooper, and the number of dives a combat diver has made. Just as individual skills are perishable, so too is institutional performance. As the RAND study showed, the metrics that measure the effectiveness of institutions are rarely quantitative. They are normally qualitative in nature and defy quantitative measurement of long-term return on investment.

Capability, capacity, and performance each can be measured, but in different ways. Performance (results) is the most dangerous metric to assess because DIB outcomes are largely qualitative in nature and long-term propositions. MOPs record the now, that moment-in-time—usually quantitative assessment—that, if the result of a crisis or failure, can be the catalyst for change. The lack of crisis or other irresistible impetus for change may mean the U.S. is not even engaged.

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41. "Chapter 16, Security Cooperation, Section 332," in *National Defense Authorization Act for Fiscal year 2017*, P.L. 114-328, (23 December 2016).

Performance metrics tend to foster a reactive approach to international engagement and the U.S. has typically resisted proactive interventions due to Western concepts of sovereignty and noninterference.

Capacity tends to be oriented towards the future and the recipient's ability and willingness to act. It would be nice to think that capacity-based engagement is proactive, if not prescient, but that is rarely the case. It usually takes a catalyst, often an existential threat, to cause the U.S. to act. Once it happens and the U.S. commits to improving the capacity of a partner, the focus needs to be on long-term development and sustainability, or a campaign approach to DIB. This leads back to the United States' own institutional challenge: the staffs charged with developing these campaigns do not have the experience, education, or ethos to design and develop capacity building campaigns. As the old saw notes, "In the absence of knowing what to do, do what you know." If previous successes at the tactical level have resulted in promotions and awards (MOPs), then no need to change, especially if the next assignment is back to the tactical level and long before any results will be realized from capacity-oriented assistance programs.

Capability should be the least equal of the three in large part because it is the easy part of DIB. Tactical, short-term engagements between small units and individuals are still the bread and butter of partner engagement and capacity building and should remain so. These activities are the province of squadrons, battalions, companies, and teams, though, and miss the strategic focus of defense institution building. Tactical engagements serve to address those tip of the iceberg, performance-oriented challenges that caused the U.S. to become involved. They are "Band-Aids," though, and do not address the underlying rules, structures, or mental model issues that may have caused the host nation to be at the point where the U.S. feels the need to assist.

Orchestrating tactical-level engagements over a number of years—essentially planning a campaign of programs, activities, and engagements that also addresses economic, organizational, and political aspects along with military/security concerns—is how DIB can achieve positive strategic results. The challenge, then, is changing the mindset of those who plan, resource, and assess the nation's partner capacity building programs so that they take a campaigning approach and impart the strategic-level goals and objectives—the "why"—to those conducting and managing the engagements; this is where DIB gets difficult.

Linear planning methods such as the MDMP and the JPP are ill-suited to the human domain—that aspect of the human existence that goes beyond the rational, objective, and physical. Humans are inherently complex, often unpredictable, and therefore tend to make decisions based on emotion over reason—fear, self-interest, and honor.[42] Institutions reflect the complex nature of humans and similarly reflect human complexity. The actions of institutions (activities, evidence, and symptoms) are the result of the rules and processes, organizational structures, laws, and relationships that support the nation's values, traditions, and beliefs. Something is needed to overcome the limits of MDMP, JPP, and other linear planning models that rely on rational, predictable, and repeatable processes. For the special operations enterprise, though, there exists a tool that embraces the complex

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42. Thucydides, translated by R.B. Strassler, ed., *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War* (New York: Touchstone Press, 1998), 15.

human-centric systems and is nonlinear in its application. Since 2015, the design-thinking has offered SOF planners and commanders a practical tool for problem-solving in the human domain. And, as the Romania case illustrates, design-thinking when applied to DIB works.

Joint Special Operations University
Department of Strategic Studies
7701 Tampa Point Blvd.
MacDill AFB, FL 33621