

Developing U.S. Army Officers' Capabilities for Joint, Interagency, Intergovernmental, and Multinational Environments¹

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ABSTRACT

This paper addresses the symposium topic “What are the required competencies for leaders and participants in inter-agency interactions and governance in comprehensive approaches to operations?” To address that question, a RAND Corporation study team conducted a modified job analysis based on interviews and focus groups with U.S. Army officers and their counterparts and co-workers from other services, agencies and nations. The study team found that the combinations of knowledge, skills and abilities required in joint, interagency, intergovernmental and multinational domains probably differ by domain and by organizational echelon, but rest on a foundation of good interpersonal skills.

Law, policy, and current military operations require the United States Army to develop a cadre of officers skilled in the integration of joint, interagency, intergovernmental and multinational (JIIM) capabilities into military operations. Doing so requires identifying the knowledge, skills and abilities (KSAs) officers require to facilitate such integration, and the career patterns by which they might be developed. Previous studies of this issue approached it from a deductive, theoretical perspective. This study employed an inductive, empirical approach, conducting a job analysis to determine what capabilities Army officers require in the JIIM domains and surveying U.S. Army officers to identify the jobs that develop those capabilities.

Our investigation led us to four broad conclusions:

- *JIIM is one acronym, but it represents four qualitatively distinct domains. Each domain remain requires different combinations of knowledge, skills and abilities.*
- *Many of these combinations of knowledge, skills and abilities probably differ at the strategic, operational and tactical echelons within each JIIM domain. Our study was not able to catalog these combinations exhaustively, however.²*
- *Relevant combinations of knowledge, skills and abilities may also differ depending on officers' functional specialties, though we were unable to gather enough data to prove or disprove this hypothesis.³*

¹ This paper essentially recapitulates analysis presented in Markel, M. Wade, Henry A. Leonard, Charlotte Lynch, Christina Panis, Peter Schirmer, Carra S. Sims, *Developing U.S. Army Officers' Capabilities for Joint, Interagency, Intergovernmental, and Multinational Environments*, Santa Monica, Calif: The RAND Corporation, MG-990-A, 2011.

² The U.S. military recognizes three “levels of war:” the tactical level, at which battles and engagements are fought; the operational level, in which battles, engagements and other activities are arranged and sequenced in time and space in order to achieve strategic objectives in a theater of war or operations; and the strategic level, at which a nation or coalition establishes its objectives and employs its resources to attain those objectives (JP 3-0, Joint Operations). Although not doctrinally recognized as a “level of war,” the military also devotes significant effort to the development and maintenance of military capabilities, an endeavor that calls on substantially different knowledge, skills and abilities than the conduct of tactics, operations or strategy; we chose to refer to that as the “institutional echelon.” We hypothesized that even within a given JIIM domain, practitioners might require a different set of KSAs depending on the echelon at which they served.

- *There appears to be no critical area of knowledge, skill or ability in any of the JIIM domains for which U.S Army officers cannot compensate.*

1.0 RESEARCH APPROACH

To arrive at these conclusions, we used an empirical approach based loosely on applied cognitive task analysis, a technique developed for the Navy Personnel Research and Development Center in 1998 to elicit task descriptions from expert practitioners in a cognitive domain. Specifically, we conducted what Militello and Hutton describe as a knowledge audit, in which information about domain specific expertise is elicited by interviewing expert practitioners. In the interviews, the study team asks subjects to identify elements of expertise and then probes for concrete examples that illustrate the particular knowledge, skills and abilities in question. In this study, we began by showing respondents a range of potential tasks in the various JIIM domains. We then probed to get respondents to identify the knowledge, skills and abilities relevant to their performance of those tasks, and the experiences that developed those skills. During these interviews, the team took detailed notes; most of the interviews were digitally recorded as well. The team then transcribed its notes to allow coding and subsequent analysis of the data (Militello and Hutton, 1998). As described earlier, our analyst then broke the interviews down into individual observations and coded those observations according to the specific knowledge areas, skills or abilities described, as well as the echelon and functional category in which they applied.⁴

1.1 Data Elicitation

The study team elicited data from U.S. Army officer practitioners and, to a limited degree, their interlocutors in the JIIM community. We interviewed Army officers with experience at all levels in the various JIIM domains to identify those knowledge, skills and abilities that were either unique to a particular JIIM domain, or uniquely important for success within that domain. More importantly, we also interviewed individuals from other services, U.S. government agencies and nations to get their perspective on this question. Finally, we supplemented these interviews with focus groups at the Army War College, the U.S. Army's Command and General Staff School, NATO's Allied Command – Transformation, and the Department of State.

Our sampling plan could be represented as a three-dimensional matrix as depicted in Figure 24-1 below. We tried to interview at least one incumbent and one individual from some external organization from each "cell" of the matrix. Often, our respondents were able to provide us with information relevant to other echelons and other domains, which helped shape our sampling plan and also contributed directly to our analysis. Overall, we conducted interviews with 41 individuals and twelve focus groups with two to eight participants each, for a total of 102 individuals from varying backgrounds.⁵

³ The U.S. Army organizes officer branches and functional areas into three broad categories: maneuver, fires and effects, which includes branches like infantry, armor and field artillery that tend to generate effects directly; operations support, including officers that perform technical or cognitive functions that facilitate maneuver, fires and effects, like signal, military intelligence or operations research; and force sustainment, including logisticians, finance officers and others who manage human, materiel and financial resources. At the outset, we thought it probable that even within a given JIIM domain, different functional areas might require different sets of JIIM knowledge, skills and abilities.

⁴ We found this methodology attractive because it promised reasonably accurate results but required relatively little up-front training for the study team. This was an important consideration as only one team member was in fact a credentialed behavioral scientist.

⁵ Identifying experts proved to be a particular challenge, in that few formal, objective and publicly available indices of expert performance in military operations exist. To the maximum extent possible, we tried to find people whose attainments made them recognized experts in their field. We also relied on those recognized experts' identification of other potential respondents. Still, as will be seen shortly, it proved difficult to find enough experts using these criteria, especially at lower ranks. We therefore included a great many individuals who simply had experience in these domains in our sample.

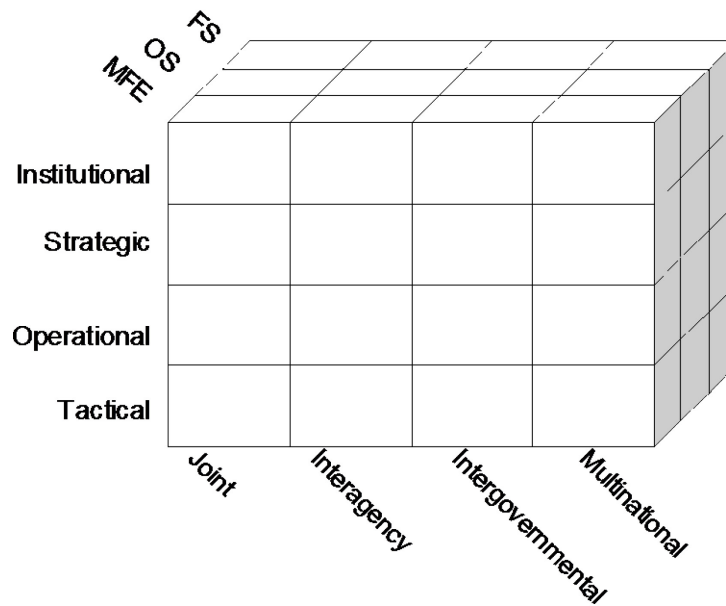


Figure 24-1: Sampling Plan⁶.

Having identified our respondents, we conducted our interviews according to a standard protocol in order to elicit descriptions of the knowledge, skills and abilities associated with each domain. In general, we asked subjects to describe:

- The titles and general duties of the job or jobs they held in a joint, interagency, intergovernmental or multinational context
- What was uniquely joint, interagency, intergovernmental or multinational about those duties
- The specific tasks they performed that were joint, interagency, intergovernmental or multinational in nature
- The knowledge, skills and abilities associated with those joint, interagency, intergovernmental or multinational tasks
- The experiences they felt developed the requisite knowledge, skills and abilities⁷

Our data should be regarded as just a sample of the potential variations in JIIM duties and positions. As this was primarily an exploratory study, we used qualitative techniques to get a rich level of detail on the positions respondents were describing. It was impossible to interview incumbents from all of the possible combinations of echelon, functional category and JIIM domain. Even if that had been possible, the nature of the jobs clearly changed from person to person and with the deployment location, if any, and the nature of the mission at a particular place and time. Thus, we used our purposive sampling strategy to illuminate potential variations across domain, echelon, and functional category rather than to permit broad statistical generalizations.

⁶ MFE stands for “Maneuver, Fires and Effects,” OS stands for “Operational Support” and FS indicates “Force Sustainment.”

⁷ When respondents were hesitant to name tasks or knowledge, skills, and abilities, we presented them with detailed potential task lists and KSA lists to give them an example of the range that could be addressed; however most respondents were fairly fluent and did not require these aids. Naturally, not every interview followed the same lines. Almost invariably, respondents’ relative emphasis on various knowledge, skills and abilities provided an implicit assessment of their relative importance and helped us filter the important from the merely desirable. During the interviews and focus groups, team members took detailed notes, often supplemented by digital recordings, then transcribed those notes for subsequent analysis.

1.2 Data Analysis

We used O*NET KSAs⁸ as the skeleton of our coding model and the basis of the instrument we used as a prompt when participants were having difficulty generating necessary attributes. As noted by Sackett and Laczó (2003), O*NET KSAs are at a level of generality that allows for comparison across occupational areas. Realizing that these formalized knowledge, skills and abilities were not designed to describe military jobs in a conflict environment, we then added knowledge domains, skills and abilities implied by the JIIM tasks we had included on our task lists.⁹

We tested our hypotheses based on the frequency with which a particular knowledge, skill or ability was associated with a given domain, echelon or functional category. First, we associated each knowledge area, skill or ability that emerged from our interviews with one of the JIIM domains. Next, we attempted to associate it with a particular echelon. Finally, we attempted to align the various knowledge areas, skills and abilities with one of the three functional categories. Each of these analyses was independent from the others. That is, we did not classify a knowledge area, skill or ability as being characteristic of a given JIIM domain and echelon and functional area. Given the low frequency of occurrence of the KSAs, we deemed it inappropriate to analyze more than one dimension at a time as such fine parsing of the data might render our conclusions less stable.

In general, we aligned a particular knowledge area, skill or ability with a given domain, echelon or functional category only when that association was clear and unambiguous. For example, if it was unclear in which domain a necessary knowledge area, skill, or ability fell, we excluded it from our analysis. However, we did examine the frequency with which knowledge areas, skills and abilities occurred by domain, by echelon, and by functional area. When a given knowledge, skill or ability was mentioned more than twice overall and 50 percent of the time or more in conjunction with a given domain, we considered it to be associated with that domain. Some skills, including general interpersonal skills and conflict resolution and negotiation skills, were mentioned with such frequency across JIIM domains that, although they were not primarily associated (in our sense of the word) with a given domain, we considered them essential for all. We performed similar analyses for knowledge areas, skills and abilities by echelon and functional area. Finally, we checked our results by conducting an analysis of intra-rater reliability, or, in layman's terms, the degree to which our coder's assessment was consistent. Percentage agreement was acceptable given the complexity of the coding at 81 percent for the 50 aggregated categories.

2.0 FINDINGS

Perhaps our most significant finding was that none of our respondents identified any particular knowledge, skill or ability as being an absolutely critical characteristic, one for whose absence they could not compensate in a JIIM context. That is, lacking any one knowledge, skill or ability was unlikely to cause any officer to fail in any given job, according to our respondents. Beyond that, respondents tended to accord more weight to general skills and abilities than to domain knowledge, according the greatest importance to

⁸ The Bureau of Labor Statistics, in conjunction with several other research institutions, have identified a standard taxonomy of knowledge, skills and abilities that might be required in any given job. These standard lists, available at <http://www.onetcenter.org/questionnaires.html>, allow for comparison and differentiation between jobs.

⁹ The majority of the information (i.e., 60 percent of KSA instances) was obtained via interview, reflecting the comparative richness and depth that can be elicited in that context. Certainly, Fern (1982) indicated that interview format elicitation generated more ideas than did focus group format, so our finding that more information was generated during interviews is not surprising. In general, however, the range and frequency of knowledge, skills and abilities identified did not differ significantly in the interview context than in focus groups. The only exception to this was the knowledge area of statutory, regulatory and policy environment for homeland defense, which was more frequently elicited via interview. As that knowledge area was uniquely associated with the intergovernmental domain, as discussed below, and since the majority of the data elicited for this domain was from interviews, this finding also is not surprising.

people skills, overall the most commonly noted KSA. In other words, skills in establishing relationships, communication, and the skills to negotiate with individuals from other organizations and influence them was an important underpinning for achieving success in a JIIM context. Moreover, the same sets of skills and abilities tended to be required in each JIIM domain, to varying degrees.

This analysis indicated that the JIIM domains were in fact qualitatively distinct. The joint, interagency, intergovernmental, and multinational domains each required different combinations of knowledge, skills and abilities, grouped as indicated in Table 24-1 below. This finding contrasts significantly with the current joint qualification system, which essentially treats all four of the JIIM domains as aspects of “jointness,” on the basis that they are all components of unified action (JKO, 2008). The existence of this difference suggests that officers serving in these different domains may require different developmental patterns.¹⁰

¹⁰ Several of the skills and abilities listed in the multinational column of Table 2.1 would seem to apply more generally, e.g., “training management.” Respondents, however, were identifying knowledge, skills and abilities that were particularly important in a given JIIM context. The relatively higher frequency of responses associated with the multinational context could stem from respondents’ involvement in training indigenous security forces, which places a premium on basic, functional military competencies.

Table 24-1: Knowledge, Skills and Abilities Associated with Each JIIM Domain.

Joint	Interagency	Inter-Governmental	Multinational
<p>U.S. Army Capabilities and doctrine (K) Joint capabilities and doctrine (K) Joint organization and processes (K) Strategic issues (K) Other services' capabilities, culture and processes (K) U.S. Army structure, processes and culture (K) Joint planning processes and system (S) Management of financial resources (S) Originality (A)</p>	<p>Other government agencies capabilities, culture and processes (K) Cultural metaknowledge (K) U.S. government strategy and policy (K) U.S. government law, policy and processes for allocating resources (K)</p>	<p>Statutory, regulatory and policy environment for homeland defense (K) National Incident Management System (K)</p>	<p>Area expertise (History, geography, culture) (K) Allied nations' capabilities, culture and processes (K) Partner nations' capabilities, culture and processes (K) International and nongovernmental organizations capabilities, culture and processes (K) Stability and counterinsurgency theory and doctrine (beyond official U.S. doctrine) (K) NATO capabilities, culture and processes (K) Active/self-initiated learning (S) Change management and project management (S) Employing U.S. Army capabilities (S) Instructing (S) Judgment and decision-making (S) Management of personnel resources (S) Training management (S) Comfort with ambiguity/adaptability/ (A) Flexibility (A) Conscientious-ness/integrity/decisiveness (A) Deductive/induct-ive reasoning (A)</p>

Our analysis also indicated that different sets of JIIM knowledge, skills and abilities were required at the echelons habitually associated with the three levels of war and in military institutions. For instance, an officer serving as the operations officer in a joint task force needs to understand joint capabilities and doctrine, while it is more important for an action officer on the joint staff to know joint organization and processes. The association of distinct knowledge, skills and abilities with different echelons is shown in Table 24-2 below.

Table 24-2: JIIM Knowledge, Skills and Abilities Associated with Echelon.

Strategic	International and nongovernmental organizations capabilities, culture and processes U.S. Government strategy and policy Strategic issues Other services' structure, processes and culture U.S. Army structure, processes and culture Social perceptiveness Comfort with ambiguity/adaptability/flexibility
Operational	National Incident Management System NATO capabilities, culture and processes
Tactical	Area expertise Stability operations and counterinsurgency theory and doctrine (beyond U.S. doctrine) Cultural metaknowledge Employing Army capabilities Coordinating with personnel from other nations Employing joint capabilities Foreign language skills Stress management Self-awareness Training management

A brief look at the table above indicates that at least some of these associations are counterintuitive, at best. Probably the most valid conclusion to be drawn is that JIIM knowledge, skills and abilities do in fact differ by echelon, though perhaps not always and exactly in the ways identified in Table 24-2. Our respondents' subjective assessments supported our quantitative analysis. Several respondents with experience at several echelons agreed with the assertion that there were significant differences between the JIIM knowledge, skills and abilities required at different echelons, some emphatically; none disagreed. Their first-hand experience of the differing requirements posed at different echelons carries special weight.¹¹

¹¹ Moreover, while combining the results of Table 24-1 with Table 24-2 to form a matrix aligning knowledge, skills and abilities by domain and echelon might recommend itself as intuitively obvious, unfortunately this would not be a valid approach. This is because such fine parsing would require reliance on comments made by very few of our participants in many instances and so any firm conclusions would be an over-extrapolation.

We were unable to differentiate the knowledge, skills and abilities required in the JIIM domains by Army officers' functional category. That is, our analysis did not uncover any difference between the knowledge, skill or abilities required by maneuver, fires and effects officers, operations support officers and force sustainment officers working in the same domain, at the same echelon.^{12, 13}

Perhaps the most cogent observation from our respondents was that the most important element of success in the JIIM domains was that practitioners simply need to realize that they are in a different environment, with different dynamics, which requires different behaviors. This observation obtained in several contexts. With this understanding in mind, practitioners could take measures to adapt successfully to the environment in which they found themselves.

The following sections describe first, the knowledge areas, skills and abilities generally required in all the JIIM domains, and then those knowledge domains, skills and abilities unique to each JIIM domain.

2.1 Knowledge, Skills and Abilities Required Across the JIIM Domains

The five most frequently mentioned knowledge areas, skills and abilities overall were:

- General interpersonal skills
- Knowledge of other U.S. government agencies' capabilities, culture and processes
- Communication skills (both written and oral)
- Conflict resolution and negotiation skills
- Knowledge of other services' capabilities, culture and processes.

Over half of our respondents identified people skills, emphasizing the development and maintenance of relationships as the single most important knowledge, skill or ability in the JIIM domains. About half of these respondents specified multiple different aspects of interpersonal skills, emphasizing its importance to them. According to Lieutenant General Frank Kearney, then Deputy Commander of U.S. Special Operations Command, "JIIM is easy – it's about trust and relationships." Most respondents attached significantly higher importance to people skills than to domain specific knowledge.¹⁴

Negotiation ranked a close second in number of affirmations. Approximately 40 of our respondents noted that joint, interagency, intergovernmental and multinational circumstances require cooperation and collaboration between many different organizations, with different national and organizational cultures and

¹² Statistical analysis did suggest alignment of some JIIM knowledge, skills and abilities with functional categories, but those results were highly counterintuitive.

¹³ At least, we were unable to discern any differences that made sense. For instance, "instructing" appeared to be uniquely aligned with the force sustainment functional category. This finding may have more to do with our method than the actual truth of the matter. Our interviews were too short to penetrate to the details of an individual's job. Because there were not enough of such observations, all we could conclude with any confidence was that officers needed to understand joint capabilities pertinent to their functional category. Such differences are amply accommodated by current assignment and education patterns.

¹⁴ Clearly, the term itself is somewhat imprecise, but in the context of our interviews and focus groups, our respondents seemed to define people skills as those skills that allow an individual to foster positive interaction with his or her counterparts and co-workers. Building and maintaining relationships appears to be a major aspect of people skills. The Army's FM 6-22, *Army Leadership* (2006), offers that relationship building is a "technique in which practitioners build positive rapport and a relationship of mutual trust, making counterparts more willing to support requests." In fact, our respondents' description of people skills resembled FM 6-22's description of "influence techniques," especially those that did not rely on coercion or compulsion. We should note that these influence techniques rest on a firm academic foundation, as a brief scan of FM 6-22's non-military bibliography will reveal.

different objectives. In the words of one student at the U.S. Army Command and General Staff School, "Everything's a negotiation."¹⁵

Almost as many respondents thought critical thinking and analytical skills were important. This emphasis on critical thinking is of course a staple of all recent studies on military professional development and knowledge work in general. In spite of the utter predictability of its inclusion, critical thinking is genuinely important in JIIM contexts because many of the problems officers encounter are both knotty and unfamiliar. There were about half as many affirmations (thirty-seven) of the importance of critical thinking as there were for people skills. In other words, our respondents seemed to think that people skills were substantially more important to success in JIIM contexts than critical thinking.

Respondents who worked at the strategic echelon were generally more likely to attach great importance to critical thinking and analytical skills.¹⁶ One respondent went so far as to say that an officer with high intelligence and a rigorous graduate school education would probably be more useful for analyzing strategic issues in the course of working staff actions than a more senior officer who was simply a War College graduate.¹⁷

Skills in written and oral communication were closely linked with critical thinking skills. Respondents in every domain, in every echelon felt that it was important to understand their audience and to convey facts, concepts and plans in a manner that their audience would understand. Even more fundamentally, demonstrating effective communication skills requires practitioners to accumulate and present facts, assumptions and conclusions in an orderly, logical manner. Communication skills assume particular importance in JIIM contexts, in which participants probably share neither the same lexicon nor the same worldview.

We should not close without noting that many respondents (about 35) felt that functional proficiency formed the foundation of their effectiveness in the JIIM domains. Respondents' strengths in the knowledge, skills and abilities we describe enabled them to successfully apply their proficiency as infantry officers, engineers, analysts and so forth in joint, interagency, intergovernmental and multinational contexts. Functional proficiency, combined with people skills, allowed officers to successfully overcome shortcomings in other knowledge, skills and abilities associated with the JIIM domains. The converse was not true, however. No degree of specific JIIM competency could overcome incapacity in an officer's functional domain. This conclusion accords with that of a Caliber Associates study for the U.S. Joint Staff J-7 (Morath *et al*, 2006).

2.2 Joint

Predictably, what distinguished the joint domain from the other JIIM domains was the knowledge required. A thorough understanding of joint organization and processes, combined with an equal degree of understanding of other services' capabilities, culture and doctrine, greatly facilitated success in the joint domain. As we have noted, respondents also tended to feel that such understanding was less important than people skills that enabled effective collaboration.

¹⁵ Like "people skills," there is extensive academic research on negotiation theory and practice, much of which can be found at the Harvard Negotiation Project's website. <http://www.pon.harvard.edu/research/projects/hnp.php3>, accessed November 18, 2008.

¹⁶ According to O*NET, critical thinking consists of "Considering the relative costs and benefits of potential actions to choose the most appropriate one. Analysis of complex problems to determine appropriate solutions (O*NET, 2003)."

¹⁷ From the study team's perspective, that observation highlights an important nuance related to work at different echelons. The tasks performed at the strategic echelon do not consist solely or even principally of developing strategy. Officers working in the strategic domain typically perform tasks that enable others to develop strategy. Staff officers analyze issues, write papers and present briefings. Critical thinking skills are obviously useful in these tasks, and are important in formulating strategic courses of action as well. They are hardly sufficient for the development of proficiency at the strategic level, however.

The nature and degree of understanding required varied by echelon, however. Officers serving at the operational and tactical levels required a fairly detailed, intuitive understanding of joint and service capabilities, while those at the strategic level needed to know just enough to understand when other service representatives were making unrealistic proposals.

While understanding other services' capabilities was useful, understanding the U.S. Army's capabilities, culture and processes was essential. Army officers could compensate for shortfalls in knowledge of other services' capabilities through collaboration. In collaborative joint processes, officers from each service bring that knowledge to the table. Several respondents also noted that it was important for U.S. Army officers to understand the distinctive aspects of U.S. Army culture in order to identify potential friction points. To enable successful joint planning and execution, Army officers have to bring at least a working understanding of the availability and utility of the full range of Army capabilities.

Not surprisingly, respondents in interviews and focus groups at the strategic echelon tended to think it was important to comprehend the various strategic issues at play at any given time. By strategic issues, we mean the major strategic problems confronting the United States. This observation may be a function more of the echelon at which our respondents worked (generally in the Office of the Secretary of Defense) than of their association with the joint domain. In other words, while the office was joint, the issues were not necessarily so, nor even uniquely military in nature.

Competence in joint planning processes and supporting systems facilitated effective collaboration. There are two aspects to joint planning processes. One is the general analytical approach to understanding military problems. JP 5-0, *Joint Operations Planning* (2006) describes this approach, which resembles the Army's military decision making process very closely. Army planners with joint and interagency planning experience told us that the military decision making process described in FM 5-0, *Army Planning and Orders Production*, provided an excellent basis on which to conduct joint and interagency planning. Beyond that conceptual approach, however, there are the actual processes by which plans and ideas are translated into execution. The voluminous Chairman, Joint Chiefs of Staff series of manuals on the *Joint Operation Planning and Execution System (JOPES)* (CJCSM 3122) describes these processes. Put another way, the general conceptual approach described in JP 5-0 helps planners discern what they need to do and what capabilities they need to do it, while the systems and processes described in CJCSM 3122 are required to actually obtain and employ the required capabilities.

2.3 Interagency

The interagency domain required knowledge, skills and abilities similar to those required in the joint domain. Instead of understanding other services' culture, capabilities and processes, officers working in this context had to understand the culture, capabilities and processes of other government agencies. Respondents thought that a working knowledge of how the U.S. government allocates resources and responsibility was important, since deciding which agency pays for which activities is often the first order of business.

Eighty-eight percent of specific observations pertaining to the interagency domain identified understanding other agencies' culture, capabilities and processes as important. This need for understanding other agencies extended to quite low echelons. For example, officers with experience on Brigade Combat Team staffs in Iraq also cited their need to understand what other agencies did and how they might contribute to ongoing security and reconstruction efforts.

As noted, understanding how the U.S. government resources its activities abroad was important for success in unified action. This is particularly true since U.S. government processes and authorities for resourcing integrated operations are somewhat immature. The U.S. government funds operations in Afghanistan and Iraq using Title 22 (Foreign Assistance) funds, Title 10 (Defense) monies, monies appropriated for counter-narcotics operations and monies appropriated specifically for operations in those places, just to name a few

sources. Each have certain restrictions placed on them. For example, foreign assistance funds cannot generally be used for the purchase of arms and equipment, at least without a waiver.

Several key respondents, including former ambassador to Afghanistan Ron Neumann, asserted that understanding the culture, geography and politics of the area of operations was extremely important to success in the interagency arena. On the other hand, Jim Dobbins, who had been one of Neumann's predecessors as ambassador to Afghanistan and who had coordinated U.S. efforts in the Balkans in the 1990's, felt that while such area expertise was somewhat important, the relevant information could be acquired relatively quickly and easily. In Dobbins's view, while the challenges U.S. authorities faced were infinitely varied and complex, the U.S. government possessed only a limited range of tools with which to address those challenges. What U.S. officials really needed to know was how to apply those tools.

2.4 Intergovernmental

We were not able to elicit much input about the knowledge, skills and abilities required in the intergovernmental domain. Beyond fairly obvious requirements, like the need to understand the statutory, regulatory and policy environment for homeland defense, respondents stressed the need to forge and maintain personal relationships. The Director of the U.S. Army National Guard emphasized the fact that each of the fifty-four states and territories has its own unique constitutional, political and cultural context. While not as alien as operational environments abroad, the very familiarity of domestic environments might lull Army officers into ignoring important distinctions. Civil support operations have intensely political overtones, especially in the wake of natural disasters, and military officials need to be careful not to trespass either on the authority or the prestige of state and local officials. Supporting those officials effectively requires both an understanding of both their official responsibilities and their personal strengths and limitations.

Respondents felt that a thorough understanding the statutory, regulatory and policy environment for homeland defense was very important in the intergovernmental domain. There are important constraints and limitations on what military forces can and cannot do in a domestic context. This environment includes the U.S. Code, including Title 10, Title 32 (Reserve Components); the National Incident Response Plan, and other federal and local policies.

2.5 Multinational

Most of the observations we recorded pertained to the multinational domain. According to many respondents, the key to success in the multinational environment was simply being aware that he was in a different environment and being willing to adapt to its dynamics. Obviously, respondents found knowledge of allies' and partners'¹⁸ capabilities and culture to be important; the issue was one of degree. Respondents thought that they needed enough knowledge to envision multinational partners' ability to contribute to a particular operation or to anticipate their reaction to a given initiative. Similarly, several observed a need for skills in cross-cultural communication. And, while understanding NATO doctrine and processes may seem equally obvious, it still bears explicit mention because NATO doctrine and processes have an impact well beyond operations conducted under NATO's aegis. Less obviously, respondents asserted that a broad understanding of theory and doctrine on counterinsurgency and stability operations facilitated interaction with the bewildering array of national, international and non-governmental entities with which they had to deal.

Oddly, respondents found that activities in a multinational context required them to be able to coordinate with personnel from other U.S. organizations to a greater degree than activities in the joint, interagency or intergovernmental domain. The multinational context also seemed to call more heavily on generic skills and

¹⁸ Throughout the study, we distinguished between allies, with whom the U.S. shares a formally defined and long-standing relationship, and partners, with which the U.S. relationship may be of more recent vintage or more temporary in nature.

abilities than did the other JIIM domains. “Active learning” was very important, as were “instructing,” “adaptability/flexibility,” “deductive reasoning,” and “management of personnel resources.” The nature of current operations, which are heavily multinational at virtually every level, probably skews our findings. It also seems probable that the ambiguity and variability of the multinational context calls most heavily on general skills for understanding and adapting to unfamiliar contexts.

Finally, understanding and being able to navigate U.S. rules governing the transfer of classified materiel was a sensitive issue with many allied officers, though this area of knowledge was not necessarily a distinguishing trait of the multinational domain. Successful multinational operations require sharing information, but classification rules are designed to protect information, sources and methods by restricting access. If U.S. officials lack a firm grasp of classification rules and foreign disclosure procedures, it can result in over-classification and shut down the necessary flow of information. This is not to argue that classification rules are too restrictive, but that U.S. officers working in a multinational context need to understand them well enough to share information as well as protect it.

3.0 COMPENSATING COMPETENCIES

As the study progressed, we began to note a striking similarity between our findings and that of another RAND study, *Compensating for Incomplete Domain Knowledge* (Scott et al., 2007). In this study for Project Air Force, a RAND research team investigated the question of how Air Force general officers were able to manage large and complex enterprises with which they had had little prior experience. For example, how could an officer who had risen as a fighter pilot cope with the challenge of managing the Air Force Materiel Command?

The RAND team found that such officers applied a number of competencies. Those competencies fell into four broad categories: enterprise knowledge, integration skills, problem solving skills, and people skills. “Enterprise knowledge” refers to understanding of the overall goals being pursued, and the role one’s organization played in support of those goals. “Integration skills” refer to the ability to identify the right sources of information and analysis to bring to bear on a particular problem, and the ability to integrate relevant outputs into a solution. “Problem solving skills” are those general skills which can be applied to any given problem, including defining the problem, establishing facts, identifying relevant analytical frameworks, and so forth. “People skills” means the general ability to foster effective collaboration on a particular issue.

There are several parallels with the knowledge, skills and abilities that our respondents identified in the JIIM domains. “Enterprise knowledge” corresponds to observations on the importance of understanding stability operations and counterinsurgency theory and doctrine, particularly as it describes the roles and functions of civilian and military organizations and efforts. “Integration skills” and “problem-solving skills” would resonate with the significant and determined minority who maintained that common Army planning skills, associated with mastery of the military decision making skills, were essential and largely sufficient for mastering JIIM contexts. Moreover, “delegating to the right talent” sounds a lot like the approach of many senior leaders to coping with the multinational context. Finally, our respondents found “people skills,” especially in building and maintaining relationships, to be the very foundation of success in all JIIM contexts.¹⁹

The similarity between these “compensating competencies” and the knowledge, skills and abilities we have associated with the various JIIM domains probably stems from a similarity in situations. Like the Air Force general officers struggling to master an unfamiliar organization, Army officers are struggling to master an

¹⁹ Our respondents’ emphasis on interpersonal skills also highlights the relevance of the concept of “emotional intelligence,” as described by Daniel Goleman in *Emotional Intelligence*, New York: Bantam Books, 1995, particularly his emphasis on empathy and social skills.

unfamiliar operational context. Just like Air Force generals, Army officers may not immediately understand the dynamics of their area of operations, but it helps to know what the U.S. is trying to achieve in a given operation and what the Army's role in that effort is. Just as Air Force general officers approach problems by ensuring that the right people collaborate, Army officers ensure other agencies are represented in planning and assessment venues. And, of course, the foundation of the military decision making process is a thorough understanding of the problem. Finally, as in any collaborative enterprise, people skills are required to reduce the friction inherent in differing worldviews and differing objectives.

This similarity would seem to recommend further investigation of the application of "compensating competencies" to the JIIM context. It also recommends a certain degree of circumspection, however. As *Compensating for Incomplete Domain Knowledge* establishes, "compensating competencies" enable officers to perform satisfactorily in unfamiliar contexts. Those who have developed domain knowledge already, however, usually perform better than those who are compensating. Similarly, the knowledge, skills and abilities we have identified may simply be those general competencies which enable officers to cope with unfamiliar contexts. True expertise may very well require a more extensive and more highly-developed range of knowledge, skills and abilities.

4.0 CONCLUSION

Our analysis should be treated with some caution. Detailed identification and specification of the full range of knowledge, skills and abilities associated with each JIIM domain and each echelon, as well as establishing their relative importance, will require further research. In this sense, a key ancillary contribution of our findings is that they can be a framework for further study and analysis.

We can nevertheless draw some broad conclusions with reasonable confidence. First, no single knowledge, skill or ability appears to be critical for effectiveness in any JIIM context. Overall, the quality and functional expertise of an officer appear to have greater weight in successful performance than any knowledge, skill or ability unique to any of the JIIM domains. Second, each JIIM domain is in fact cognitively distinct from the others, meaning that developing thorough expertise in that domain requires focused education and significant experience within that domain. Third, the strategic, operational, tactical and institutional domains appear to comprise distinct domains as well, though the precise outlines of those domains are less clear. Fourth, while domain knowledge is important, it assumes this importance mostly at the level of colonel and higher. Below that rank, officers can function effectively in JIIM contexts without specialized JIIM knowledge. Finally, people skills are probably the most important element of success in any of the JIIM domains, just as they are in a broader sense. In short, if an officer is expert in his or her branch or functional area, willing to listen to other perspectives and able to integrate outside input, and able to integrate knowledge and insights from these perspectives in a logical way, there is every reason to believe he or she will be effective (even if not actually expert) in a JIIM context.

The subject is worthy of further research, however. First of all, our initial study was exploratory, not exhaustive. As noted, we were unable to establish whether JIIM competencies differed by officers' functional specialty or not. More importantly, though the evidence indicated that required combinations of knowledge, skills and abilities probably differed by JIIM domain, we were not able to establish what these combinations were with any real specificity. Third, and most importantly, the context has changed markedly since we first undertook this research. The U.S. strategic posture is shifting from one of direct counterinsurgency and stability operations in one or two countries to global engagement in a myriad of diverse countries and cultures. This new strategic context may well demand new combinations of knowledge, skills and abilities in each JIIM domain.

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