Adaptive Learning for Afghanistan

Final Recommendations

10 February 2011

US Joint Forces Command
Joint Center for Operational Analysis

Joint Center for Operational Analysis (JCOA) Mission (U)

As directed, JCOA collects, aggregates, analyzes, and disseminates joint lessons learned and best practices across the full spectrum of military operations in order to enhance joint capabilities.

Address
Joint Center for Operational Analysis
Joint Warfighting Center
116 Lake View Parkway
Suffolk, Virginia 23435-2697

Requests for Information
Requests for information can be sent to jcoa.ed@jfcom.mil (NIPRNET), jcoa.ed@hq.jfcom.smil.mil (SIPRNET), or jcoa.ed@usa.bices.org (NATO). We will respond to your request as soon as possible. Please indicate the type of information you require and the context of how the information will be used. If there is an urgent time requirement, please include that information as well.

Websites
NIPRNET
USJFCOM portal (internal): https://us.jfcom.mil/sites/JCOA
Defense Knowledge Online (external): https://www.us.army.mil/suite/page/409019

SIPRNET
USJFCOM portal (internal): https://us.jfcom.smil.mil/sites/JCOA
USJFCOM Knowledge Today (external): http://kt.jfcom.smil.mil/JCOA

NATO
BICES/CRONOS: http://jcoa.act.nato.int/portal

Background and Methodology (U)

(U//FOUO) Building on several previously completed studies of civilian casualties (CIVCAS) in Afghanistan, the US Joint Forces Command (JFCOM) Joint Center for Operational Analysis (JCOA) partnered with Ms. Sarah Sewall of Harvard University to conduct an independent and comprehensive assessment of civilian casualties, the *Joint Civilian Casualty Study*, published in August 2010. The Commander, International Security Assistance Force (COMISAF), responded to this assessment by stating that more work was needed to ensure that the DOTMLPF changes required to reduce and mitigate CIVCAS were institutionalized. Accordingly, COMISAF requested that JCOA, with the support of the Services, conduct a study to *"examine the institutionalization of CIVCAS lessons learned into US forces' preparation for deployment, with a focus on the unique context of Afghanistan."* That study, *Adaptive Learning for Afghanistan* (ALA), examined ways in which lessons and adaptations in theater were captured, shared, and incorporated into force preparation. In this respect, ALA was not "another CIVCAS study," but rather, it used CIVCAS as a test case for characterizing the overall process of adaptive learning.

(U) The ALA study team conducted a thorough review of policy, procedures, and practices, followed by visits to Afghanistan and US-based institutions. The team reviewed about 1,000 documents and conducted over 200 interviews. Appendix A contains a list of locations visited in support of the study. The team reviewed in-theater development and sharing of lessons, the translation of those lessons into preparations for deployment, and joint and Service support to unit pre-deployment preparations and training.

(U) JCOA provided its initial study product, *ALA Quick Impact Recommendations*, to COMISAF in December 2010. This paper was comprised of recommendations to improve the in-theater lessons learned (LL) processes and further reduce CIVCAS beyond efforts that had already been put in place. The International Security Assistance Force (ISAF), in conjunction with individual troop-contributing nations, began implementing many of the recommendations contained in that paper. The ALA final brief was provided to COMISAF in late January 2011. This paper is a summary of key insights from the final brief and expounds upon the major recommendations to provide context and aid implementation.

Introduction (U)

(U) The ALA study addressed the relationship between force preparation and in-theater adaptation. Regardless of the quality of pre-deployment preparation, US forces will still need to flexibly learn and adapt in theater. GEN Petraeus described how it is "incumbent on us to assess the situation continually and to adjust our plans, operations, and tactics as required."[1] With an all-volunteer force that is responsible for potentially executing across the full spectrum of operations, a critical element of success is the ability of forces to adapt to a complex and changing operational environment.

[1] (U) General David Petraeus, Remarks on the Future of the Alliance and the Mission in Afghanistan, delivered 8 February 2009, 45th Munich Security Conference.

(U) At the same time, effective force preparation is integral to operational success. Preparation both helps forces begin to understand the operational environment and provides a base set of planning approaches and tactics, techniques, and procedures (TTP) appropriate to that environment. In operations, those approaches and TTP do not preclude adaptation, but rather often serve as departure points for theater-specific adaptation and learning. When these lessons and adaptations are then folded back into force preparation processes and institutions responsible for longer-term DOTMLPF functions, adaptation occurs across the overall force.

(U) Further, effective force preparation and the ability to learn and adapt are complementary and synergistic. A force that is effectively prepared is better positioned to adapt in precise and measured ways, instead of inventing entire new ways to operate *ab initio*. At the same time, a force that is well prepared for a specific environment but is unable to learn and adapt will become less capable as that operational environment changes. So, effective force preparation, learning, and adaptation go hand in hand in supporting a successful force.

Example: Civilian Casualties in Afghanistan (U)

(U//FOUO) One example of the importance of effective force preparation, learning, and adaptation in operational success is the issue of coalition-caused civilian casualties in Afghanistan. Since 2005, the issue of civilian casualties has had increasing impact on operations in Afghanistan. In response, US commanders LTG Barno, GEN McNeill, and GEN McKiernan all issued guidance to help reduce civilian casualties, but the issue remained. GEN McChrystal, upon taking command of ISAF in mid-2009, made reduction of civilian casualties a point of emphasis and issued additional guidance to ISAF forces. This leadership emphasis and guidance caused ISAF forces to change and adapt their operations to comply with COMISAF intent. Further, this intent and guidance was received by forces preparing to deploy, and the Services' pre-deployment preparations began to include ways to operationalize the guidance.[2]

(U//FOUO) During an in-theater visit in April 2010, it was evident that forces had made a number of adaptations to TTP and planning processes in order to reduce and mitigate civilian casualties. These changes included:

- The use of alternate tactics, including the employment of snipers or maneuver elements instead of airstrikes when there were civilian casualty concerns
- The use of tactical patience to verify positive identification (PID) and collateral damage concerns
- Modifications in air-ground communication and procedures
- Modified TTP in counter-terrorism operations
- Increased partnering between Coalition and Afghan forces

(U//FOUO) Notably, civilian casualties decreased by about 20% in the first nine months of 2010 compared to the first nine months of 2009, despite increases in Coalition forces and in OPTEMPO.[3] While many adaptations were evident in-theater, much of this adaptation to reduce civilian casualties by forces was not specifically supported or addressed in their pre-deployment

[2] (U) *Joint Civilian Casualty Study* report, August 2010.
[3] (U) "Joint Civilian Casualty Study" briefing, November 2010.

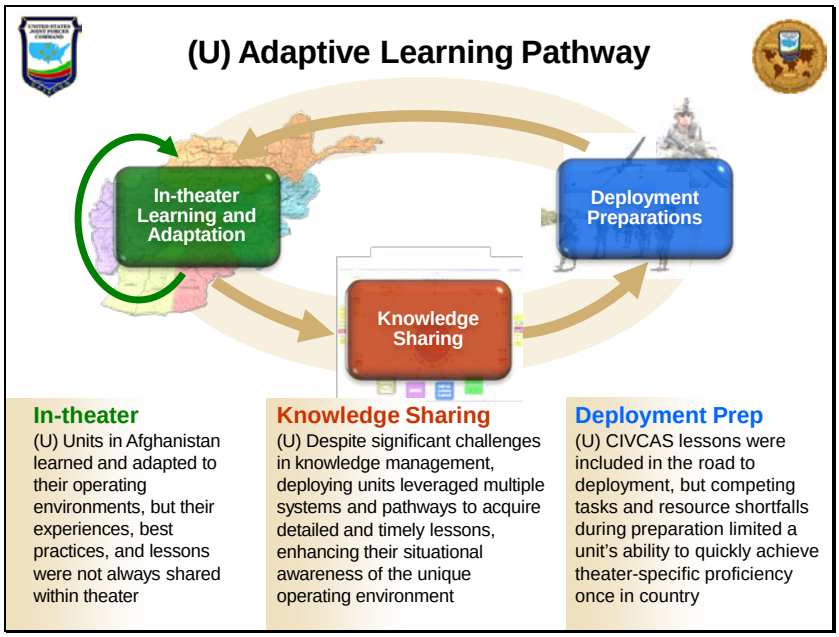
training.[4] However, during a second in-theater visit in October 2010, forces discussed how their pre-deployment training now included more treatment of the issue of civilian casualties. This training aided in-theater efforts to reduce civilian casualties and mitigate their impact.

(U//FOUO) The desired end state is a force that understands the operational environment, has the basic tool set to meet operational requirements, and can use those tools as a baseline to learn and adapt as needed to achieve the mission. The ALA study examined how lessons on critical theater issues — such as reducing and mitigating civilian casualties — were identified, passed, and implemented in the road to deployment for Afghanistan. The study identified best practices and challenges in this overall process in order to provide a basis for improvement. The next section of this paper outlines the key findings of the study, as detailed in the ALA final brief. The paper concludes with overall recommendations and detailed information to aid implementation efforts.

ALA Study Findings (U)

(U//FOUO) The ALA study characterized the adaptive learning pathway in terms of three components: in-theater learning and adaptation, knowledge sharing, and deployment preparations. This pathway is illustrated below, with the study conclusions for each of the three components listed underneath (Figure 1).

(U//FOUO) **In-theater Learning and Adaptation:** Units in Afghanistan learned and adapted to their operating environments, but their experiences, best practices, and lessons were not always shared within theater. For example, due to leader emphasis on the need to reduce and mitigate civilian casualties, units adjusted their TTP accordingly. While many of these practices and lessons were captured by a variety of methods, they were not always shared with other units in theater.



(U) Figure 1. Adaptive Learning Pathway

(U//FOUO) Capturing and sharing lessons during operations can increase the speed and effectiveness of unit adaptation. However, in Afghanistan, lessons learned organizations did not appear to make a significant contribution to in-theater adaptation. The in-theater organizations frequently did not align

[4] (U) *Joint Civilian Casualty Study* report, August 2010.

their efforts or share lessons effectively. In addition, these organizations often lacked the necessary capability and capacity, in terms of resourcing and training, to quickly analyze information and get it back out to the force. There were a number of Service and partner-nation national lessons learned agencies collecting in theater, but they were more focused on collection than immediate feedback to deployed units. A notable exception was evidenced in the smaller, more agile, and better resourced SOF lessons learned organization. Their efforts were generally more focused and their processes were designed for a quick turnaround to forces in theater.

(U//FOUO) ISAF and the ISAF Joint Command (IJC) also had lessons learned organizations, but they were not resourced adequately with sufficient personnel, and the personnel typically had no experience with lessons or analysis. Despite these limitations, the ISAF and IJC lessons learned organizations implemented a number of tools to improve sharing, such as improvements to the ISAF lessons learned portal, distribution of the monthly IJC Top Tip Sheet, and counterinsurgency (COIN) shuras.

(U//FOUO) While the formal lessons learned organizations were often not contributors to learning overall, there were a number of organizations and mechanisms in theater that did significantly facilitate learning. Organizations like the Asymmetric Warfare Group (AWG) and the ISAF COIN Advisory and Assistance Team (CAAT) put teams at the tactical level to both collect and share lessons they had learned from other units. In addition, critical lessons were often passed through routine unit activities such as after action reviews, commander to commander discussions, commanders' updates, and e-mails from command sergeants major. Unfortunately, because these disparate efforts were conducted independently, the information passed was not usually vetted or captured for greater sharing among forces in theater (or with the CONUS training community).

(U//FOUO) **Knowledge sharing:** Numerous mechanisms were available to share information, knowledge, and lessons. The primary means used to share information between tactical units and commanders was a peer-to-peer exchange. Unit commanders used prescribed methods like the Pre-deployment Site Survey (PDSS) to coordinate directly with their predecessors and relied heavily on informal means such as e-mail and phone conversations. Sharing of information and lessons was further reinforced during their relief in place/transition of authority (RIP/TOA). Units preparing for deployment sought information and lessons specific to the area of operations (AO) to which they would deploy, using e-mail exchanges, telephone conversations, and other material from theater to identify and resolve war fighter issues. To a lesser degree, forces also accessed venues such as communities of practice portals, secure video teleconferences (SVTCs), and the Afghanistan Training Community of Interest (TCOI) to build situational awareness and support pre-deployment preparations.

(U//FOUO) The successful exchange between preparing units and deployed forces was enabled by widely available applications for exchanging information (e.g., portals, websites, synchronous and asynchronous collaboration tools). Commanders and tactical units leveraged this technology to obtain information they needed. Additionally, information and lessons were packaged in various formats, ranging from simulations to vignettes, offering ready training solutions and lessons packaged with operational context.

(U//FOUO) However, there were multiple barriers to effective sharing of information, knowledge, and lessons. A key barrier was lack of network access and capacity, which included a lack of access to SIPRNET and other networks at home station, low-bandwidth networks, cross domain restrictions, and account requirements for many portals. A second barrier was a lack of integration and organization of information: information was posted to numerous websites maintained by different organizations which convoluted users' attempts to sift through the available information. A third barrier was information overload: there was so much information available in all the different venues that it was often not practical for units to sift through the information to find the key insights and lessons. This barrier included lessons learned: while lessons learned organizations actively collected, validated, and disseminated lessons, these lessons were often provided without context, often as individual tactical observations without identification of overarching principles. In the face of these barriers, the use of a "man-in-the-loop" in the information exchange process to analyze, prioritize, synthesize, and distribute information enhanced effective knowledge-sharing practices.

(U//FOUO) **Pre-deployment Training and Preparation:** Since the Farah CIVCAS incident in May 2009, the Services and joint community have increased the quantity and improved the quality of unit COIN training, including CIVCAS training. This appears to be largely the result of increased senior leader emphasis, both in-theater and in CONUS, and communication between training centers and forces in theater regarding critical in-theater issues. Combat training centers worked to create realistic, theater-specific environments, including the use of Afghans as role players. Collective situational exercises and vignettes were used to conduct training with realistic scenarios. Virtual environments and computer simulations were also developed to further promote COIN proficiency and CIVCAS reduction.

(U//FOUO) A key aspect of achieving realistic training was the inclusion of theater-specific lessons learned and guidance in pre-deployment training. The Farah incident was used by multiple training sources in scenario and vignette-based training. The current COMISAF Tactical Directive, ISAF escalation of force (EOF) policies, and ISAF COIN standards were used in unit home station training and at the combat training centers (CTCs). The CTCs used this guidance both to develop scenarios that exercised critical in-theater issues and to design appropriate rubrics for evaluating the preparedness of forces.

(U//FOUO) While specific CIVCAS and COIN lessons were included in the road to deployment for Afghanistan, competing tasks and resource shortfalls during preparation limited a unit's ability to quickly achieve theater-specific proficiency upon arrival in country. Numerous pre-deployment tasks, limited dwell time, personnel issues, and equipment shortages impacted a unit's ability to be completely trained before deployment. For example, many training topics needed to be retrained because key personnel did not arrive to the unit until 30 to 60 days before equipment load. Unit cohesion was also impacted by low-density, high-demand personnel joining the unit in theater, as well as personnel being assigned to units late in the train-up cycle yet unable to deploy based on dwell-time requirements. Equipment such as EOF kits; advanced tactical pods; intelligence, surveillance, and reconnaissance (ISR) tools; and Mine Resistant Ambush Protected vehicles (MRAPs) were unavailable for training until arrival in theater, slowing a unit's theater-specific proficiency. Sometimes, due to unfamiliarity and lack of

training, units that were unaccustomed to theater-specific equipment would not even use these assets during their deployment. All of these factors took up valuable time in theater and distracted units from the task of acclimation and adaptation to the operational environment.

(U//FOUO) In conclusion, the overall ALA study findings are summarized as follows:

- Since the Farah incident in May 2009, the joint and Service communities have implemented many changes to integrate CIVCAS reduction and mitigation into the "road to deployment" for Afghanistan
- Units are faced with hard choices when managing numerous training requirements, especially in a compressed force generation cycle
- Equipment, unit manning, IT systems, and enablers remain challenges to pre-deployment preparation
- The technology and tools to pass lessons are advancing rapidly. However, without analysis, adjudication, and synthesis, the overall effect can be information overload and the creation of "information stockpiles" and stovepipes
- The strongest mechanism for obtaining in-theater lessons continues to be peer-to-peer sharing or visits to theater
- In-theater lessons did not always inform longer-term DOTMLPF change

Final Recommendations (U)

(U) The ALA brief contains a number of recommendations for the Services and joint community to help address identified challenges and aid learning, adaptation, and force preparation. This section expands on these recommendations, providing rationale and detailed information to aid implementation efforts.

1. Recommendation: Services should expand access to network systems (e.g., Afghan Mission Network, SIPRNET, CENTRIXS) for units at home station, as appropriate. (U)

(U//FOUO) **Rationale:** Classified networks have become "business as usual" in US and Coalition warfare. These networks carry orders, intelligence, operational products, and guidance, and are particularly useful for conducting decentralized operations such as COIN. Operational units not having access to these common networks find themselves at a disadvantage: for example, UK forces in Iraq cited their limited numbers of SIPRNET terminals as a significant factor in being operationally detached from the rest of the campaign.

(U//FOUO) This detachment can also occur with forces preparing for deployment. Forces commonly cited their desire to have a right-seat/left-seat experience with units in theater. Partly this was achieved through PDSS visits; however, these visits were necessarily limited in both time and scope of personnel who could visit theater. Access to a deployed unit's information could offer some of those same benefits over longer lengths of time and to more personnel within the deploying unit. However, units were often not able to affect this due to limited network access at needed echelons. Many tactical units at

battalion and below had no SIPRNET access at their home stations. Even at brigade level, the entire brigade often had only a handful of terminals, which was not considered enough to meet the many demands the unit faced.

(U//FOUO) For Afghanistan, SIPRNET access alone is often not sufficient, as the Coalition places much important information on CENTRIXS. CENTRIXS access was even more unusual at home station. For example, FORSCOM has just installed CENTRIXS terminals at FORSCOM HQ and is now examining requirements for lower echelons. In addition, ISAF's establishment of the Afghan Mission Network further complicates home station access to in-theater information.

(U//FOUO) Besides exchanging information with deployed units, SIPRNET access is also valuable for accessing training products. Ironically, many training products intended for deploying forces are not widely available to those forces because of their lack of access to SIPRNET. Sometimes units or training centers had access to SIPRNET but their available capability was less than needed. For example, SIPRNET at Fort Polk served as an internal classified network within the installation only; it did not have access to any external sites. This is useful for some applications, but it does not support transfer of information, best practices, and lessons from theater. Similarly, some units' SIPRNET access had such limited bandwidth that they could not transfer valuable products, including ROE publications and weapons systems video.

2. Recommendation: As an interim solution, Joint Staff J7, in conjunction with the Services, should support a "man-in-the-loop" approach for the broader lessons learned community. (U)

(U//FOUO) **Rationale:** The joint lessons learned enterprise is managed by the Joint Staff J7 and includes lessons learned agencies from the Services and combatant commands. This enterprise is described in CJCSI 3150.25D (published 10 October 2008). The ALA study identified a number of challenges associated with the lessons learned enterprise: specifically, challenges in transferring and communicating lessons from those who have them to those who need them.

(U//FOUO) The critical shortfalls in the LL process were the contextualization of lessons and the establishment of an effective conduit from the source to the end user, whether that end user was a unit preparing for deployment, a deployed unit, a training institution, or an organization responsible for longer-term DOTMLPF change. CJCSI 3150.25D addresses these two areas as "knowledge development" and "implementation." These two challenges were largely overcome, however, when there was a "man-in-the-loop" approach to lessons learned. Having a person who could be an active conduit for lessons, while also digesting and contextualizing those lessons, proved to be an effective approach. While certain elements of this approach existed in "pockets of excellence," the approach was largely absent in the lessons learned enterprise as a whole.

(U//FOUO) So, how can a "man-in-the-loop" approach be applied to the entire joint lessons learned enterprise? One potential element is to formalize the adjudication of lessons using

networks of subject matter experts (SMEs) across the Service and joint communities. These SMEs could be responsible for reviewing inputs to the Joint Lessons Learned Information System (JLLIS) and providing both validation and context. Assignments could be made to allow SMEs to adjudicate lessons in specific functional areas. This adjudication would hopefully include both validation of specific inputs and aggregation of multiple inputs (such as tactical observations in specific contexts) to obtain underlying lessons that apply across these specific contexts. This addresses the "knowledge development" aspect of the CJCS program.

(U//FOUO) The SMEs could also be leveraged for the "implementation" element of the program. In addition to search queries of the JLLIS database, users would be able to request information from specific SMEs and obtain tailored analysis from all available data for their specific requirement. Besides providing this response to the end user, the tailored analysis package could be posted in Intellipedia and also become a searchable product in JLLIS itself. Through a "man-in-the-loop" approach to knowledge management and implementation, JLLIS could become more effective in providing critical, tailored lessons to users when they are needed.

(U//FOUO) The first step in using a "man-in-the-loop" approach would be to develop a plan that incrementally applies resources to those areas that provide the most opportunity. Over several years, continuous innovation may move lessons learned to a more central role in force development.

3. Recommendation: Joint and Service organizations should capture lessons from sources such as investigations, UONs, RFFs, and forums such as TCOI, and include them in deployment preparations. (U)

(U//FOUO) **Rationale:** Organizations that sought current in-theater information and lessons often obtained this information by visiting and/or communicating with forces in theater. However, some in-theater lessons and analysis can and should be found in other non-traditional sources, which are often not leveraged by preparing units or elements of the pre-deployment process.

(U//FOUO) Investigations, including legal, safety, and command-directed investigations, are a source of valuable lessons and analysis. While the purposes of these different investigations may vary, they all have two key elements: rigorous documentation of the facts, coupled with substantive analysis. The result is often a rich source of lessons and analysis with well-developed context. However, distribution of these investigations is often restricted to specific channels (e.g., legal investigations are usually kept in legal channels). With access and application of analytical resources, lessons could be extracted from these investigations and made into vignettes and other products that could better inform force preparation.

(U//FOUO) Another potential source of lessons and analysis are urgent operational need statements (UONS). Through UONS, forces can articulate an unmet operational requirement for consideration of a fast-track materiel solution. These statements include

analysis of specific operational challenges that, in addition to the main purpose of the UONS, can prove useful in pre-deployment preparation for accurately capturing challenges units will face in theater.

(U//FOUO) These two examples illustrate the general point that products created outside of lessons learned channels can hold lessons valuable for pre-deployment preparation. This is particularly true when they contain analysis and not simply tactical observations. These data sources could be an important component to a redesign of joint and Service lessons learned processes, as recommended in number two above. However, access to some of these data sources (e.g., legal investigations) can be problematic and may require senior leader advocacy.

4. Joint and Service organizations should consider how to make learning and adaptation more central to their processes. (U)

(U//FOUO) **Rationale:** Lessons learned organizations generally exist because of the desire to avoid repeating shortfalls observed in previous operations. For example, CALL was created after OPERATION JUST CAUSE (Grenada, 1983), MCCLL was created after OPERATION DESERT STORM (Iraq, 1991), and JCOA was created in 2003 in the midst of major combat operations in OPERATION IRAQI FREEDOM in response to the initial phases of OPERATION ENDURING FREEDOM. However, the mandate for lessons learned also requires that change be made to address these lessons. While lessons learned organizations can excel in extracting insightful issues and identifying challenges, if the overall institution does not address those challenges, then the objective to "learn" lessons has not been achieved.

(U//FOUO) The mandate to learn lessons is complicated by the placement of lessons learned shops within the overall Service or joint organization. While the specifics of this placement can vary, generally lessons learned shops are not in a position where they are able to directly make decisions regarding how to respond to observed lessons. Rather, they try to influence decisions through providing products, giving presentations to decision-makers, and working through liaison officers. The often tenuous connection between those who identify lessons and those who make decisions is illustrated in the difficulty many lessons learned shops have in identifying the impact of their work.

(U//FOUO) An example of a lessons learned organization that has become more central to its parent command's overall decision-making is the US Special Operations Command's (SOCOM) Joint After Action Review Support Office (JAARSO). JAARSO has several features that help lessons be actively considered and implemented by its parent command. A key element of this is the establishment of a remediation officer within the Chief of Staff's (COS) office. The remediation officer reports directly to the COS and actively tracks lessons from identification through implementation. This provides senior leadership oversight and enables direct intervention when necessary to ensure that lessons are learned. In addition, SOCOM invites JAARSO into planning efforts with the goal of including lessons learned from past operations.

(U//FOUO) Organizational placement is not the only way to make lessons more central to learning. Processes that emphasize lessons can achieve the same thing. An example is the Joint Staff and CIVCAS. After the Farah incident in May 2009, CJCS and the US Central Command (CENTCOM) commander put forward a number of initiatives to help the military learn from the Farah incident. CENTCOM recommended that JCOA identify enduring lessons from the incident, and CJCS initiated the Joint Staff CIVCAS Working Group, folding JCOA's lessons into the process. This senior leader-initiated process centrally placed lessons into Service processes for change. Both the Joint Staff and the Services can employ lessons in a similar way to help learn lessons more broadly.

5. Recommendation: Joint and Service organizations should better capture and incorporate lessons and near-term adaptations into longer-term DOTMLPF, with an immediate focus on doctrine, materiel, and education development. (U)

(U//FOUO) **Rationale:** Since the Farah incident in May 2009, adaptations to better address CIVCAS have become evident both in Afghanistan and in pre-deployment training for forces going to Afghanistan. However, these lessons did not always arrive at institutions responsible for longer term DOTMLPF change. As a result, there are specific gaps in longer-term DOTMLPF solutions for CIVCAS.

(U//FOUO) For example, doctrinal organizations were not aware of any deficiencies in doctrine with respect to the issue of CIVCAS until teams visited to discuss recent lessons. Similarly, PME programs believed that they were addressing current CIVCAS issues through treatment of the law of armed conflict (LOAC) and case studies of commanders who were in violation of this in their conduct of operations. At the same time, Service and joint programs on non-lethal weapons do not appear to be responding to specific requirements for conducting EOF in Afghanistan, since most fielded and planned solutions do not match up well with the actual threat and the specific nature of these incidents in theater.

(U//FOUO) This situation, with the responsiveness to theater lessons in pre-deployment training and the gap in longer-term DOTMLPF solutions, may well be associated with the fact that substantive, important linkages between lessons in theater and the pre-deployment preparation process were passed peer-to-peer instead of through lessons learned channels. This implies that pre-deployment training institutions could serve as an "early warning" for institutions responsible for longer-term DOTMLPF change. The Services should examine ways to capitalize on this and transfer these lessons. For example, just as Services have instituted forums where training centers meet and share emerging lessons, similar forums could also be useful to share emerging lessons and insights with groups managing longer-term DOTMLPF changes.

6. Recommendation: Evaluate knowledge management across DOD and develop methods to increase the efficiency and effectiveness of knowledge sharing. (U)

(U//FOUO) **Rationale:** When tactical units deploy into theater, they are required to manage networks and myriads of disparate information in order to conduct operations. Accordingly,

tactical units typically receive training on how to conduct knowledge management. Unfortunately, higher-level headquarters neither receive the same training nor apply the same diligence to knowledge management across the force. For example, while a single unit may follow a sensible naming convention in the format and nomenclature of products, there is typically no standard convention across units, so it becomes difficult to draw out information spanning across tactical units. This effect is exacerbated across different Services and communities (e.g., air compared to ground, SOF compared to GPF).

(U//FOUO) The overall effect is the creation of many individual stockpiles of information that are not easily combined into knowledge or insight. This limits information that units can find and exploit for their own preparation; it also inherently limits questions that can be answered about operations in general. For example, multiple ISAF commanders have asked whether the frequency of EOF incidents occurring at the individual unit level was related to the unit's time in theater. Despite senior leader interest, this information could not be obtained because individual units kept their own deployment data independently, in different formats that could not easily be combined and collated with EOF incidents.

(U//FOUO) Networks have become central to how knowledge is stored and shared, but from both a campaign perspective (e.g., in Afghanistan) and an institutional perspective (the joint community and the Services), information in these networks is maintained in a largely ad hoc way. A comprehensive approach to knowledge management would aid in the sharing and exploitation of that information.

Conclusion (U)

(U//FOUO) ISAF and IJC have devoted significant manpower and effort to reducing and mitigating civilian casualties in Afghanistan, a critical issue in the theater of operations. Since the Farah incident in May 2009, the Services and joint community have responded by modifying the "road to deployment" to Afghanistan to better prepare forces with regards to this issue. At the same time, challenges outlined in this paper complicate learning and adaptation in response to theater lessons. Implementation of the recommendations provided above should improve both the velocity and the scope of learning across the US military.

(U) Study points of contact are listed on the next page of this report; they welcome your comments, questions, and feedback on this study.

Contact Information (U)

(U) For more information, please contact one of the following:

Dr. Larry Lewis

Project Manager

CNA Field Representative to JFCOM

Joint Center for Operational Analysis, JFCOM

Lawrence.Lewis@jfcom.mil

757-203-6297

Lt Col Michael "Strike" Messer

Study Lead

Joint Center for Operational Analysis, JFCOM

Michael.Messer@jfcom.mil

Michael.messer@hq.jfcom.smil.mil

757-203-7398

Appendix A: Locations Visited (U)

(U//FOUO) In support of the ALA study, teams visited key locations both in Afghanistan and in the US. Locations visited in Afghanistan are included in Section 1, and locations visited or communicated with (such as by SVTC) are included in Section 2.

Section 1: Locations Visited in Afghanistan (U)

(U//FOUO) A team of twelve individuals from JCOA and the Services, led by the JCOA Director, deployed to Afghanistan from 3-13 October 2010 for data collection. The team interviewed individuals from ISAF, IJC, Air Component Coordination Element (ACCE), Expeditionary Air Support Operations Group (EASOG), Combined Forces Special Operations Component Command (CFSOCC), Combined Joint Special Operations Task Force – Afghanistan (CJSOTF-A), Task Force (TF) 5-35, and TF 3-10, amongst others. The study team conducted interviews in Regional Command (RC)-East, RC-West, RC-Southwest (including UK units), and RC-South, interviewing key leaders and staff members at the division, brigade, battalion, and company level, as well as USAF Air Expeditionary Wings. Specific locations visited include:

ISAF
COM
DCOM
DCOS OPS, CJ-3, 33, 37
DCOS COMM, IO, PAO
DCOS SP
ACCE
CAAT
CFSOCC
  CJSOTF-A

IJC
COM
CSM
DCOS JOPS
CJ-3
COMM DIR
CJ-33 (PICC)
DCOS AIR,
  AIR PLNS (IAT)

NTM-A/CSTC-A

USFOR-A
DCOM-S,TF 5-35, TF 3-10

HQ – RC-E

CJTF 101
CDR, COS, CJ3, E33, JOC,
  SJA, CJ2, RCC

3 CAB
CDR and Staff

SOTF-E

455th AEW
455 EOG CDR,
  Staff, 336 EFS (F15),
  4 EFS (F16)

FOB Sharana
4/101 CDR and Staff,
  1-506 IN CDR
  and Staff, TF Gambler,
  4-320 FA,
  801 BSB, BSTB
PRT

FOB Shank

173 ABCT
CDR and Staff,
  4-3 AVN CDR and Staff,
  1-91 CAV

HQ – RC-S
CIVCAS Action Team,
  JOC Chief,
  Joint Effects Team,
  Ops Div
CAAT
AWG
COIC
Joint Expeditionary Team

Camp Nathan Smith
TF Raider – 1 BDE/4 ID
  1-22 IN, 504 MP,
  1-66 AR, 320 FA

Uruzgan
CTU
  TF No Mercy,
  1/2 SCR, PRT
SOTF 34

KAF
TF Destiny
TF Saber
807 EASOS (JTACs)
451 AEW
  451 EOG, 451 EOSS,
  75EFS (A-10) (RPA)
  (HH-60)

HQ – RC-SW
PAO, IO Officer,
  Current Ops Officer,
  MCCLL Rep
CAAT-SW

Task Force Leatherneck
G-3, Fires Officer, SJA,
Current Ops Officer

RCT-1, RCT-2
2/6, 3/1 MAR;
  Co's from 2/9, 3/3

Task Force Helmand
COS, Fires Officer, SJA

III MAW
SJA,VMFA-232 CDR
  and Staff, HMLA-369
  CDR and Staff

RC-W

TF Raider – W
CDR and Staff
  7-10 CAV CDR
  and Staff

SOTF-W HQ

Section 2: Locations Visited in US (U)

(U//FOUO) Teams of individuals also visited or communicated with key organizations in the US. This data collection occurred between November 2010 and January 2011. Specific locations visited included:

29 PALMS
TTECG MCCLL LNO
TTECG S2
TTECG C4-3L
3 MAW MCCLL LNO
MATWS-1 Air Ops
MCAGTF-TC-ED SUP SP

CENTCOM
CCJ3-J5-FP
CCJ2-JOT
CCJ7-TT
CCJ8-ARB
CCJ7-TR

FT BRAGG
JFKSWCS LL PM
1 SFG LL
3 SFG LL
5 SFG LL
7 SFG LL
9 SFG LL
160 SOAR LL
75 RANGER Rgt LL
JSOC J-7
JAARSO LL

FT IRWIN
NTC
12TH CTS

FT LEAVENWORTH
CAC CDR
CALL
MCCoE
CAC-T

FT LEWIS
2-2SCR DCO
SCR WFF – DIR, ADIR

FT MCPHERSON
FROSCOM CDR

FT MONROE
TRADOC

FT POLK
Green Flag East
548TH CTS CDR
JRTC – CALL Rep,
OPS GRP

FT SILL
Army Fires COE Dir ITD

MCGUIRE AFB
422JTS LL/TTP POC
USAF EOS Commandant
USAF EOS Course Dir

NAS FALLON
NSAWC

NAS OCEANA
NSFWS – FAC-A DIR
NWDC– Program DIR LL
DIR ANALYSIS, IT

NELLIS AFB – FW
F15E WIC – DO
F16 WIC – CDR, DO
RPA WIC – DO, ADO
57TH OG – CDR, DCDR
561ST JTC – CDR
CALL LNO
USAFWC – LL DIR
549th CTS – CDR
Joint UAS CoE –TRNG
432nd OSS – WEP /
TAC OFF

NEWPORT NEWS
JTCOIC

QUANTICO
MCCLL LNO to PP&O
TECOM G3 Ops
MCCLL LNO to MCCDC
MCCLL Operations Officer
MCCLL Senior Analyst

SOCOM
USSOCOM J8-R
USSOCOM SORDAC
USSOCOM J7-T
USSOCOM JSOU, DEAN
USSOCOM J7/9-KL

WASHINGTON DC
HQ USAF A9
JS/J7
JNLWD
HQ DA G3/5/7 – TR

Appendix B: Acronyms (U)

A

ACCE	Air Component Coordination Element
ALA	*Adaptive Learning for Afghanistan* Study
AO	Area of Operations
AWG	Asymmetric Warfare Group

C

CAAT	COIN Advisory and Assistance Team
CALL	Center for Army Lessons Learned
CENTCOM	US Central Command
CFSOCC	Combined Forces Special Operations Component Command
CIVCAS	Civilian Casualties
CJSOTF-A	Combined Joint Special Operations Task Force – Afghanistan
COIN	Counterinsurgency
COMISAF	Commander, International Security Assistance Force
CONUS	Continental United States
COS	Chief of Staff
CTC	Combat Training Center

D

DOTMLPF	Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities

E

EASOG	Expeditionary Air Support Operations Group
EOF	Escalation of Force

F

FOB	Forward Operating Base

G

GPF	General Purpose Forces

I

IJC	ISAF (International Security Assistance Force) Joint Command
IO	Information Operations
ISAF	International Security Assistance Force
ISR	Intelligence, Surveillance, and Reconnaissance

J

JAARSO	Joint After Action Review Support Office
JCOA	Joint Center for Operational Analysis
JFCOM	US Joint Forces Command
JLLIS	Joint Lessons Learned Information System

L

LL	Lessons Learned
LOAC	Laws of Armed Conflict

M

MCCLL	Marine Corps Center for Lessons Learned
MRAP	Mine Resistant Ambush Protected Vehicle

P

PDSS	Pre-Deployment Site Survey
PID	Positive Identification

R

RC	Regional Command
RIP/TOA	Relief in Place/Transfer of Authority
ROE	Rules of Engagement

S

SME	Subject Matter Expert
SOCOM	US Special Operations Command
SOF	Special Operations Forces
SVTC	Secure Video Teleconference

T

TCOI	Training Community of Interest
TF	Task Force
TTP	Tactics, Techniques, and Procedures

U

UONS	Urgent Operational Need Statement