



Thunderbirds pilot banks right over Rocky Mountains after refueling in flight by KC-135 Stratotanker from McConnell Air Force Base, Kansas, May 21, 2015 (U.S. Air Force/Zach Anderson)

Lessons about Lessons

Growing the Joint Lessons Learned Program

By Jon T. Thomas and Douglas L. Schultz

There is no decision that we can make that doesn't come with some sort of balance or sacrifice.

—SIMON SINEK

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Lessons learned programs are traditionally used to improve organizational performance. As such, in a very true sense, these programs are “leader’s programs” or top-down leadership tools. But at the same time, there is another equally important aspect that sometimes gets overlooked. In a large organization, with many distinct suborganizations, a lessons learned program is

also intended to support organizational learning—many times from the bottom up—through the sharing of information about common problems and solutions throughout a community of practice. Lessons learned and shared across the larger organization enable all to learn from others’ experiences with the aim of avoiding the waste and redundancy of repeating the same mistake.



U.S. Marine Corps officers assigned to Company A, The Basic School, listen to confirmation brief for field training exercise at Marine Corps Base Quantico, Virginia, April 16, 2015 (U.S. Marine Corps/Ezekiel R. Kitandwe)

The U.S. military, with its various Services, staffs, and support agencies, clearly falls into the category of a large organization with many suborganizations. Within this large and diverse grouping, effective commanders and leaders instinctively do their best to ensure that those under them learn from mistakes to avoid repeating them, while also seeking out best practices to give them an edge against likely opponents. In this sense, lessons learned “commander’s programs” have been around since people first organized into groups to fight one another. Yet the other side of lessons learned does not come so naturally in a military setting, where hierarchy is firmly established and competitiveness abounds. While members serving within the same command or Service usually have no problem sharing with their compatriots, it can be a different story with outsiders. Military organizations often find it difficult to

readily share failures for the sake of group learning. But especially in a dynamic environment characterized by evolving threats and tight fiscal constraints, finding a way to balance the need for a commander’s program with the need for timely sharing of knowledge across the enterprise is an absolute imperative.

This article discusses how the Armed Forces have gone about this balancing act since the inception of a formalized Joint Lessons Learned Program (JLLP) following passage of the Goldwater-Nichols Department of Defense Reorganization Act of 1986. This article maps the growth of the JLLP from nascent efforts to the current broad program of today with particular focus on the significant transformation that occurred by virtue of transition to a single system of record. The story of this program, as it sought to meet and balance the needs of the large organization that is the U.S. military, as

well as its individual suborganizations, may offer some lessons about lessons to any large organization faced with similar challenges.

1986–2006: Initial Attempts to Develop a Joint Process

Goldwater-Nichols was Congress’s way of saying that the Armed Forces had become too competitive with each other at the expense of the taxpayer and that change was no longer optional. In addition to many other legislated changes, the Chairman of the Joint Chiefs of Staff was tasked with improving interoperability of the Services to conduct more effective and efficient joint operations. One important implication of this task was to improve the sharing of joint lessons and best practices across Service lines. Prior to Goldwater-Nichols, joint lessons learned activities were almost entirely a commander’s program carried

out independently by the Services as well as the unified and specified commands. Since the Joint Chiefs of Staff did not have authority to direct actions across Service lines, the need for sharing lessons and best practices went almost unaddressed despite two General Accounting Office (GAO) reports criticizing the Department of Defense (DOD) for failing to do so. The first report, in 1979, found that “systems for identifying, analyzing, and following up on exercise lessons learned and putting the results to use were not effective” and recommended that DOD develop a universally available database where lessons could be stored and retrieved.¹ The second report, in 1985, recognized efforts undertaken since 1979, but still found significant interoperability problems and noted the lack of any progress on developing the lessons learned system previously recommended. The 1985 report identified three fundamental elements that should be present and well integrated in any successful lessons learned program: capturing and reporting observations and issues, recording and sharing this information, and providing a venue to ensure issues identified were being resolved.²

Goldwater-Nichols was enacted the following year, bringing the debate about “jointness” to a close. The authority of the Chairman was expanded to better address continuing joint interoperability issues. By enacting these changes into law, the intent was to “improve the functioning of the joint system and the quality of joint military advice.”³

In response, the Chairman reorganized the Joint Staff and established three additional directorates: the J6 (Command, Control, and Communications Systems), J7 (Operational Plans and Interoperability), and J8 (Force Structure, Resources, and Assessment). The Director of the Joint Staff (DJS) provided specific guidance to the new Director of the J7 (DJ7) to establish a “high level, single focal point for functions of force interoperability to include war planning, joint/combined doctrine, JTTP [joint tactics, techniques, and procedures], readiness, joint

exercises and training, and the remedial action program.”⁴ Partly in response to GAO criticism, and partly because of the increased authority to do so, the DJS specified a task to the new J7: stand up a Joint Center for Lessons Learned (JCLL).⁵ This marked the first recorded effort in DOD to institutionalize a means to balance the commander’s program approach with a knowledge-based learning capability.

While the Chairman was reorganizing the Joint Staff, the Services and combatant commands (CCMDs) made their own independent adjustments to improve their use of lessons learned. The first to formalize and expand its program was the Army with the establishment of the Center for Army Lessons Learned at Fort Leavenworth for the purpose of “collection, analysis, archiving, and dissemination of observations, insights, and lessons; tactics, techniques, and procedures; after action reviews; operational records; and lessons learned from actual Army operations, experiments, and training events . . . to sustain, enhance, and increase the Army’s preparedness to conduct current and future operations.”⁶

At the same time, the Air Force established its own formal lessons learned organization under the Studies, Analyses, and Assessments directorate (A9) of the Air Staff, eventually known as the A9L. This group was tasked to support “operations, exercise, and wargame after action reports as well as other [lessons learned] activities.”⁷ The Marine Corps also established a service-level lessons learned program under its Training and Education Command in Quantico, Virginia, the Marine Corps Center for Lessons Learned.⁸

On the JLLP front, several of the unified and specified commands also established staff-level lessons learned capabilities. The programs at U.S. European Command and U.S. Readiness Command were cited in the 1985 GAO report. All of these programs were initially known as Remedial Action Programs (RAPs), reflecting the primary emphasis on addressing shortfalls rather than on sharing knowledge of lessons learned. Even on the Joint Staff, despite the JCLL title, one

of the two guiding policy directives was the Remedial Action Project Program.⁹

The JCLL was expected to contribute significantly to the J7’s overall responsibility “for evaluating the preparedness and effectiveness of the unified and specified commands to carry out their assigned missions.”¹⁰ Three basic elements of lessons learned, identified in the 1985 GAO report, were brought together within one organization. Observations and issues would be captured through inputs to the Joint After Action Reporting System (JAARS). This information would be recorded and made widely available through the Joint Universal Lessons Learned System (JULLS). So while the RAP process continued to reflect the imperatives of a commander’s program, the JAARS and JULLS processes became the underpinning for the sharing of lessons and best practices across the U.S. military.

In 1991, Operation *Desert Storm* provided the first large-scale operational test of the jointness legislated by Goldwater-Nichols. *Desert Storm* was widely viewed as a resounding validation of training to operate together as a joint force. However, interoperability problems still lingered and were documented during subsequent joint operations such as the Hurricane Andrew disaster response in Florida and Operation *Restore Hope* in Somalia. This led to renewed interest from GAO and initiation of another report in 1995, which focused specifically on how the potential to use lessons learned was not being realized.¹¹

Despite the establishment of formal lessons learned programs in most of the headquarters (including the Joint Staff), GAO assessed that DOD was still failing to solve significant joint interoperability problems. The report concluded:

Despite lessons learned programs in the military services and the Joint Staff, units repeat many of the same mistakes during major training exercises and operations. Some of these mistakes could result in serious consequences, including friendly fire incidents and ineffective delivery of bombs and missiles on target. As a result, the services and the Joint Staff cannot be

*assured that significant problems are being addressed or that resources are being used to solve the most serious ones.*¹²

Even before the 1995 GAO report was published, the J7 staff recognized the need to improve the program. In 1994–1995, J7 launched the Better Lessons Learned campaign and undertook a series of visits to combatant command headquarters, soliciting feedback on what needed to be fixed. The feedback fell into four broad categories: develop and field state-of-the-art software, provide online capability, develop an analysis program, and focus on and correct significant problems.¹³

Work on the two nontechnical categories began right away. Using the Chairman's RAP process, the J7 argued successfully for creating an actual center at the Joint Warfighting Center (JWFC) that would provide the missing lessons learned analytical capability and thus the ability to identify and focus on correcting significant problems. The JWFC, established in 1993 as a Chairman-controlled activity, was located in the Hampton Roads area of southeastern Virginia. It already provided extensive support to the joint exercise and joint doctrine programs, so it seemed a sensible choice for this new task. The JWFC commander and DJ7 formalized a JCLL Implementation Plan in early 1997, which split joint lessons learned program responsibilities between their two organizations, with production and analysis concentrated in the JWFC while leaving policy and oversight of the program in the Pentagon with the J7. JWFC would also be responsible for maintaining the JULLS/JAARS database, which would theoretically give it direct access to analyze all joint lessons learned data.¹⁴

Developing user-friendly software and providing online access proved to be a much harder nut to crack. Although work started on a prototype Windows-based JULLS, it was suspended before the end of fiscal year 1997 to apply all available funding to develop the Joint Training Information Management System. After that, the joint community again was left to its own devices to either borrow one of

the Service systems or to develop something in-house for local use.¹⁵

The new JWFC/JCLL organization operated as intended, even after the JWFC was transferred to U.S. Joint Forces Command (USJFCOM) in 1999 as part of a defense reform initiative seeking efficiencies within the Pentagon staff. In August 2000, the new roles and functions were clarified as part of a rewrite and re-titling of Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3150.25. The new version, CJCSI 3150.25A, bore the title "Joint Lessons Learned Program," in recognition of the increased scope of the program beyond the report-centric Joint After Action Reporting System. During the subsequent year, this arrangement appeared to function reasonably well, with the JCLL beginning to broaden the scope of its efforts to perform trend analysis on JAARS data for potential un- or under-reported issues throughout the joint force. We will never know how the relationship would have matured because on September 11, 2001, its future was altered dramatically along with that of the rest of the Nation by the terrorist attacks on the World Trade Center and the Pentagon.

One of the first tasks that followed the attacks came in the form of a question from the Secretary of Defense, asking what lessons had been learned in the preceding years by U.S. forces combating terrorism. The initial response was developed from data gathered from the JAARS/JULLS database, supplemented with information received as a result of a force-wide data call. The resulting product was delivered approximately 3 months later, but it was not considered adequate.¹⁶

Over the next year (2001–2002), the JCLL found opportunities to explore the benefits of actively collecting observation data first at the request of the commander of Task Force 160 (Guantanamo Bay Detainee Operations), and later with the Army's 10th Mountain Division in Operation *Enduring Freedom*. At the same time, the Service lessons learned programs were beginning to send personnel forward to conduct active observation and lesson collection in theater.

As planning for Operation *Iraqi Freedom* (OIF) neared completion in early 2003, the USJFCOM commander knew immediately that the task of active data collection would be well beyond the capability and means of the 1 government civilian and 10 contractors assigned to the JCLL. On February 3, 2003, he tasked the USJFCOM J7 and the JWFC to build the necessary collection team, drawing resources from across the command. The resulting Joint Lessons Learned Collection Team (JLLCT) numbered over 30 Active, Reserve, and National Guard officers, and was led by then-Brigadier General Robert Cone, USA. To provide reachback analytical support, USJFCOM also formed a JLLCT-Rear element consisting of approximately 24 civilian analysts working in the JWFC.¹⁷

Embedded within U.S. Central Command's (USCENTCOM's) forward headquarters, the JLLCT was able to witness, record, and analyze operational-level lessons first-hand and to coordinate their efforts with Service collection teams. To receive the necessary level of access, the USJFCOM commander had to assure the USCENTCOM commander that the team's sole purpose was to support USCENTCOM and that there would be no collection efforts tied to a hidden agenda. In effect, this reinforced the commander's program approach and provided great value to USCENTCOM, although perhaps at the expense of broader sharing with, for example, other commands supporting USCENTCOM. Despite the limitations on sharing, the arrangement was considered successful enough to be enclosed within the next version of CJCSI 3150.25 as a generic Terms of Reference template for future active collection efforts.¹⁸

Once approved for release outside USCENTCOM, the JLLCT report on OIF Lessons Learned (LL) was extremely successful in garnering top leadership support to resolve larger issues beyond the USCENTCOM commander's authority or capability to resolve. In May 2003, the Joint Staff directors held an offsite to discuss and coordinate an OIF LL action plan. In October 2003, this Joint Staff-wide effort was formalized



U.S. Army Rangers assigned to 2nd Battalion, 75th Ranger Regiment, fire 120-mm mortar during tactical training exercise at Camp Roberts, California, January 30, 2014 (U.S. Army/Nathaniel Newkirk)

as the OIF LL General Officer Steering Committee (GOSC), tasked to conduct quarterly reviews of progress on the OIF LL action plan. The LL GOSC was chaired by the DJS and attended by the vice directors from across the staff, reviving and elevating the Chairman’s RAP process as a forum for moving validated issues into the correct issue resolution processes. This approach would later be formalized in the 2005 revision to the JLLP’s guidance directive, CJCSI 3150.25B.

In October 2003, the Chairman expanded the scope of USJFCOM’s JLLCT, requesting that they “aggregate key joint operational and interoperability lessons reported by combatant commands, Defense agencies and Services derived from OIF and the War on Terrorism and initiate analysis of those lessons.”¹⁹ In response to the Chairman’s guidance, USJFCOM identified funding

requirements²⁰ and proceeded to formalize the JLLCT as a permanent entity that would later become known as the Joint Center for Operational Analysis (JCOA).²¹

In December 2003 and March 2004, DOD published two major lessons learned reports. The first, a report by the Defense Science Board’s Lessons Learned Task Force, was an independent, classified, strategic-level view of lessons learned during OIF, but it also contained observations and insights on the JLLP itself. The second report, commissioned by the Office of the Under Secretary of Defense for Personnel and Readiness, focused on the status of the JLLP and how it might be enhanced to better support a project to overhaul the Joint Training System called the Training Transformation Initiative.²²

Both reports recommended that USJFCOM continue in its role as the

primary operational-level lessons learned activity, based on the JLLCT’s strong performance. They both recommended that Services and agencies continue to concentrate their efforts at the tactical level. But they both also recommended that more emphasis be placed on strategic-level lessons learned with more formalized integration with planning, programming, budgeting, and execution processes to institutionalize change across DOD instead of at just one command.

2006–Present: Establishing a Better Balance Through a Single System of Record

While JCOA continued to perform well supporting the commander’s program aspect of the JLLP, the Joint Staff J7 lessons learned element worked largely behind the scenes in 2005–2006 to lay the groundwork for a new Web-based, universally accessible automated support



Blue Angels fly over Safeco Field before Mariners baseball game in Seattle, Washington, July 29, 2015 (U.S. Navy/Michael Lindsey)

tool for sharing of lessons, the Joint Lessons Learned Information System (JLLIS). When fully developed and fielded, this system was intended to improve the balance between supporting the commander and sharing lessons across the force.

In April 2006, after examining several existing lessons learned systems, the Joint Staff J7 announced that the U.S. Marine Corps Lesson Management System had been chosen as the starting point for development of the new system. In April 2007, the Joint Staff J7, Marine Corps Center for Lessons Learned, and JCOA signed a memorandum of agreement that codified responsibilities for establishing JLLIS, with MCLL providing the baseline system, JCOA providing help with integration, and J7 providing system requirements and executive sponsorship. After 2 years of development, integration, and testing, JLLIS reached initial operational capability and was ready for

launch in January 2008. The Chairman signed out a CJCS Notice on January 22 establishing JLLIS as “the DoD system of record for the JLLP.”²³ This notice was quickly followed in October 2008 by an out-of-cycle revision to the JLLP instruction, CJCSI 3150.25D, institutionalizing the decision.²⁴ The directive was clear in communicating the intent to make JLLIS a centerpiece of the JLLP, but actual adoption of this new tool by the greater DOD lessons learned enterprise would take some time. The greatest challenge to overcome was the existence of over 30 lessons learned systems that had proliferated throughout DOD since the mid-1980s.

Issuance of a directive did not bring about immediate compliance, but the campaign to bring others onboard gathered momentum. By August 2008, the initial baseline JLLIS had been installed in all 10 CCMDs, the four Services, and three combat support agencies (CSAs). Of these DOD organizations, about 50

percent were actively using JLLIS to some degree. Additionally, JLLIS had been installed but was not yet being used at the Department of State.²⁵ As successive versions of the JLLIS software were released, the number of participating organizations continued to grow, as did the number of observations entered in the system.

In addition to supporting the sharing and learning part of the JLLP, JLLIS was equipped with a capability to support an issue resolution process. This new capability was recognized in the 2009 revision to the JLLP guidance directive, CJCSI 3150.25D, with the addition of language referring to CCMD level issue resolution processes, especially USJFCOM issue resolution processes.

When USJFCOM was disestablished in 2010, the planners recognized that the command provided several major functions that had to continue. Follow-on organizations were identified to transition these functions without

interruption of service. JCOA had been providing one of those necessary functions. Given Joint Staff J7's policy and oversight role in the JLLP, it made sense to reunite the two parts of the JLLP under one organizational lead. JCOA remained physically in Suffolk, Virginia, presenting the challenges of physical and cultural separation to the balancing effort. JCOA continued to operate under its commander's program paradigm, while the J7 Pentagon element, the Joint Lessons Learned Branch (JLLB), continued to support and expand the use of JLLIS, enhancing the knowledge management and learning aspect of the program. When the first CJCS manual was published for the JLLP in February 2011 (CJCSM 3150.25), the role of the JLLB included supporting a Joint Staff Issue Resolution Process (IRP), which had emerged to support the activities of the LL GOSC. Eventually, both elements would be placed under a single general officer (Deputy Director for Future Joint Force Development), as separate divisions, each led by an O6, enabling a more active approach to balancing the two sides of the JLLP without taking away from either. Successive revisions to CJCSI 3150.25E/F and CJCSM 3150.25A in 2013–2015 would further refine roles and responsibilities for gathering, developing, and disseminating joint lessons learned and clarifying the IRP's place in the JLLP enterprise.

In March 2014, version 3.4 of JLLIS software was released and the system was declared to be at full operational capability. By this time, key stakeholders included the Office of the Secretary of Defense, Joint Staff, CCMDs, Services, National Guard Bureau, CSAs, and other U.S. Government interagency partners. The Australian Ministry of Defence completed a foreign military sales purchase of version 3.4 for its national lessons learned program. There were more than 111,000 active users worldwide, and the database contained over 295,000 observations and approximately 135,000 documents. The system was available on Secret Internet Protocol Router, Nonsecure Internet Protocol Router, Joint Worldwide

Intelligence Communications System, and Five Eyes environments.

As the number of organizations and active users grew, the benefit of using one common system became more apparent. Operations and training exercises involving multiple headquarters, Service components, and support activities would be able to draw on each other's observations and issues before and after event execution. With the addition of a Collection and Analysis Plan module in 2014, units and organizations could also gain visibility on planned collection efforts to synchronize activities and avoid duplication of effort. None of this was even remotely possible in the years prior to JLLIS, with multiple noninteroperable repositories and support systems.

In the fiscal year 2014 National Defense Authorization Act, Congress formally recognized the additional responsibilities transferred from USJFCOM to the Chairman and expanded his authorities to include the functional areas of joint force development. One of those new authorities was "formulating policies for gathering, developing, and disseminating joint lessons learned for the armed forces."²⁶ The Chairman's new authority was incorporated into the most recent JLLP instruction (CJCSI 3150.25F), signed June 26, 2015. Additionally, a new DOD Directive (DODD), 3020.ab, *DoD Lessons Learned Program*, is being staffed and, if approved, will reinforce the imperative of lessons learned information-sharing by calling on all DOD components to use the Chairman's JLLP to improve capabilities and requiring them to use JLLIS to manage their lessons learned information.

While great progress has been made in the joint lessons learned program over the past 29 years since Goldwater-Nichols, some challenges do remain. First, as the JLLIS is populated by more observations, the inclusion of efficient, user-friendly search tools becomes increasingly important. While some improvements are soon to be fielded using IBM Watson Content Analytics (formerly IBM Content Analytics with Enterprise Search), more could and should be done

as database search technologies continue to improve. Second, as the program continues to grow as a result of the directive guidance in DODD 3020.ab, the number of joint operational and strategic challenges to be addressed by the Joint Staff IRP is likely to expand. Ensuring there is adequate bandwidth, within the JLLP in general and the Joint Staff in particular, to execute this process will be critical to continued success. Finally, developing a more clearly defined rule set for the JLLP to foster information-sharing across organizations remains an incomplete task. Timeliness of data entry relative to the completion of a major operation or exercise, scope of data entered into the system, and the pace at which issues are resolved vary across the joint force. To an extent, this is predictable because no two operations or exercises are exactly alike, and such uniqueness of events invariably implies differences in how lessons learned data are shared. However, developing a set of minimum standards, and then producing metrics to measure progress toward meeting those standards, would be of considerable use in assessing the overall health of the JLLP as it seeks to support the objectives of both supporting commanders as well as sharing information across the joint force. The Joint Staff has embarked upon an initial effort to do so, but much more work remains to be done.

Notwithstanding these remaining challenges, the JLLP in 2015 is miles ahead of the disconnected and disjointed lessons learned programs in existence nearly three decades prior. A common system, and processes to share best practices and resolve issues, today postures the joint force for learning at the organizational level. Embedded within the journey from 1986 until today are lessons about lessons that may be applicable to other large organizations seeking to maintain the same balance between leader's programs focused on suborganizational improvement and information-sharing related to common challenges across the greater organization as a whole. While still imperfect, the story of the JLLP shows that it can be done. JFQ

Notes

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⁴ Joint Staff Memorandum 251-87, *Director for Operational Plans and Interoperability Concept of Operations* (Washington, DC: The Joint Staff, 1987).

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⁶ Army Regulation 11-33, *Army Lessons Learned Program* (Washington, DC: Headquarters Department of the Army, 2006), 1.

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¹² Ibid.

¹³ Hugh Barker, "The Transformation of the Joint Lessons Learned Program, 1996–11 September 2001," unpublished white paper, Joint Center for Operational Analysis, 2006.

¹⁴ *Executive Summary: Joint Center for Lessons Learned (JCLL) Implementation Plan* (Washington, DC: The Joint Staff, 1996, rev. 1997).

¹⁵ Barker.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ CJCS Instruction 3150.25C, *Joint Lessons Learned Program* (Washington, DC: The Joint Staff, 2007), enclosure C.

Joint Publications (JPs) Under Revision (to be signed within 6 months)

JP 1-04, *Amphibious Embarkation and Debarkation*

JP 2-01.2, *Counterintelligence/Human Intelligence*

JP 3-13.3, *Operations Security*

JP 3-14, *Space Operations*

JP 3-34, *Engineer Operations*

JP 3-68, *Noncombatant Evacuation Operations*

JP 4-01.2, *Sealift Support to Joint Operations*

JP 4-01.5, *Joint Terminal Operations*

JP 4-03, *Joint Bulk Petroleum and Water Doctrine*

JPs Revised (signed within last 6 months)

JP 1-0, *Joint Personnel Support*

JP 3-05.1, *Unconventional Warfare*

JP 3-50, *Personnel Recovery*

JP 3-61, *Public Affairs*

JP 6-0, *Joint Communications System*

¹⁹ CJCS Memorandum CM-1318-03, *Expansion of Joint Lessons Learned—The Next Step* (Washington, DC: The Joint Staff, 2003).

²⁰ Commander, U.S. Joint Forces Command (USJFCOM) Memorandum, *Expanding the Lessons Learned Effort, J00 9 Dec 03* (Norfolk, VA: USJFCOM, 2003).

²¹ Commander, USJFCOM Directive 5100.4, *Charter for the Joint Center for Operational Analysis* (Norfolk, VA: USJFCOM, 2007).

²² *Enhanced Joint Lessons Learned Program Study Report* (Washington, DC: The Joint Staff, 2004).

²³ CJCS Notice 3150.25, *Joint Lessons Learned Program and Joint Lessons Learned Information System* (Washington, DC: The Joint Staff, 2008).

²⁴ CJCS Instruction 3150.25D, *Joint Lessons Learned Program* (Washington, DC: The Joint Staff, 2008).

²⁵ *Joint Lessons Learned Program and Joint Lessons Learned Information System*, B.7.g.

²⁶ 10 U.S. Code §153 (a)(5), *Chairman: Functions: Joint Force Development Activities* (Washington, DC: U.S. Government Printing Office, 2014).