No Future for an "Indispensable" Service

The Challenges of Resource-Constrained Army Transformation, 1945–1950

Maj. Spencer L. French, U.S. Army

In November 1945, the Supreme Allied Commander in Europe, Gen. Dwight D. Eisenhower, noted that "in the conditions we had during the campaigns in Africa and Europe, the service [provided by the Army Tactical Information Services] was indispensable. For the present, we should plan for its continuation."[1] Within a year of his statement, the U.S. Army had mothballed its information services. Instead of building on World War II lessons, from 1945 to 1950, changes in the Army's roles and missions, fiscal and personnel constraints, and the lack of institutional champions interrupted the Army's planned transformation of its information security and management missions. Upon the outbreak of the Korean War, the Army attempted to rapidly complete the transformation that had been halted, with uneven success. The Army's experience during this period underscores the challenge of following through on transformation efforts in the context of postconflict realities. Today, as the Army transforms many of its more technical functions and organizations in the aftermath of the Global War on Terrorism, it is experiencing a shortage of high-quality talent, competing mission sets, and fiscal constraints, much like it did from 1945 to 1950. Like the Army of the mid-40s, it is reorganizing missions, organizational constructs, and divisions of effort at echelon to meet both anticipated future and current requirements. Unfortunately, like its predecessor, the Army of today risks unintentionally creating new capability gaps if transformation is stalled or left uncompleted due to resource shortfalls. As the Army transforms, it must carefully consider the significant challenges inherent in resource-constrained transformation and the potential for failure.

World War II Information Security and Management

During World War II, the U.S. Army viewed the monitoring of friendly communications to maintain battlefield situational awareness, monitoring of friendly communications to maintain information security, and monitoring enemy communications to obtain communications intelligence (COMINT) or "radio intelligence" as related functions. The U.S. Army employed dedicated elements specifically to manage information, monitoring lower-echelon radio nets to identify information pertinent to field army decision-making and ensure the information was accessible to decision-makers in a timely manner. Several organizations performed the mission during World War II, but after the war, the U.S. Army referred to them collectively as Army Tactical Information Services

Staff Sgt. Peter Dwyer (*second from left*) from the Development Detachment, Signal Corps Engineer Laboratory, gives walkie-talkie maintenance instructions to Cpl. Robert Main, Sgt. Albert Hill, and Cpl. Benedict Cicero at the Japan Signal Service Battalion, 8047th Army Unit, at Yokohama, Japan, on 30 January 1952. (Photo by U.S. Army Signal Corps, courtesy of the National Archives)

(ATIS). The U.S. Army, during and after World War II, also employed elements to monitor friendly radio networks, document violations of information security procedures, and address potential compromises. Radio intelligence represented the third pillar of what the Army viewed as interrelated capabilities that could and should be performed interchangeably by signals corps personnel. Unsurprisingly, the Army fielded official and experimental units tasked to perform these roles, often employing them interchangeably and in multiple roles.[2] By the end of the conflict, the Army had acquired a great deal of practical experience from observing the performance of this variety of units operating in multiple roles across the Mediterranean and European theaters.

During the conflict, various organizations often performed overlapping roles related to the three functions. The Army fielded a signals intelligence (SIGINT) service section and one or more associated radio intelligence companies at field-army level and several corps-level signal service companies, which conducted COMINT collection and radio security monitoring.[3] Signal Corps doctrine also directed all Signal Corps personnel to aid in COMINT and security monitoring when not otherwise occupied.[4] The organization and doctrinal construct of the SIGINT service, radio

Members of the 3151st SIAM Company, Seventh Army, work in a staff information and monitoring (SIAM) operations room in Vesoul, France, on 29 September 1944. (Photo by U.S. Army Signal Corps, courtesy of the National Archives)

intelligence companies, signal service companies, and Signal Corps as a whole reflected the prevailing view in the early 1940s that radio operators could and should conduct a variety of monitoring roles.

In 1943, the Army began creating staff information and monitoring (SIAM) companies, based on best practices developed by the British in 1940, to conduct security and information monitoring.[5] Commanders quickly recognized the value of SIAMs in enabling common situation awareness and reducing latency in reporting during periods of battlefield fluidity such as the Anzio beachhead linkup and the drive on Rome.[6] Fifth Army also experimented by adding liaison officers to the SIAMs who provided short supplementary liaison reports.[7] Future SIAMs followed this basic model of liaison and radio intercept. The creation of the SIAMs reflected a belief that a single organization could conduct security monitoring and information monitoring.

Due to the manning shortfalls, not all field armies received a SIAM before commencing combat operations. As a result, Third Army converted a mechanized cavalry group into its Army information service based on the SIAM model.[8] Third Army's information service conducted the same liaison and information monitoring mission as the standard SIAMs but did not conduct radio security monitoring.[9] The Army information service, like the SIAMs, also performed well in fluid situations such as the pursuit in France in August 1944. Gen. George S. Patton credited his Army information service for allowing him to maintain the initiative during the pursuit by giving him superior battlespace awareness.[10]

European Theater Lessons Learned

Combat in Europe provided several lessons learned regarding best practices for managing and securing information codified in the General Board of the European Theater at the war's end. Firstly, security monitoring observably reduced communications security violations and secured information from the enemy. Secondly, information monitoring and liaison enabled rapid, well-informed decision-making. Thirdly, units could only successfully perform one mission at a time. These lessons informed a set of recommendations for postwar Army force structure that would, in the board's thinking, enable the Army to outcompete its peer adversaries in battlefield understanding and decision-making.

While the Army historically had seen the various monitoring functions as linked, practical experience in World War II had shown the benefit of differentiating these information-related functions. The theater board noted specifically that "a separate unit should be established for obtaining tactical information," and that signal security should be performed by "special units organized for that purpose."[11] This was primarily because signal service companies tended to focus on COMINT to the exclusion of security monitoring, and SIAMs tended to neglect security monitoring for information monitoring and liaison.[12]

With Eisenhower's emphatic support, the board also provided specific recommendations on how the postwar information management mission should be organized. The board specified that the Army should create an ATIS company within each field army with elements at the army, corps, and division levels. The army-level detachment and company headquarters would consist of a major, a captain, three first lieutenants, enough radio operators to dedicate one to continuously monitoring each corps and the army group, an operations sergeant, and other support personnel.[13] The ATIS elements at the corps and division levels would consist of enough code clerks to operate continually, a highly capable staff sergeant, a radio repairman, and a radio with a range of two hundred miles. The element would be led by an "intelligent, personable, energetic, persistent and completely reliable" captain with staff experience.[14] This structure and its significant investment of quality equipment and personnel reflected the importance placed on the capability.

The theater board recognized that Army force structure at that time did not include dedicated security monitoring elements. Consequently, the theater board unanimously recommended that the Army establish a dedicated security monitoring company for each field army. This company would consist of sufficient personnel and equipment to monitor at least 5 percent of the field army's frequencies, enough to ensure discipline amongst radio operators and identify systematic security issues.[15] While the board did not specify the equipment and personnel required by such a company, the requirement for expensive radio receivers and trained personnel to operate such a company would have been very high.

Army 1945–1947: Demobilization, Changing Missions, and Fiscal Constraints

Immediately following the Japanese surrender, the Army was challenged by rapid demobilization, new postwar missions, and waning budgets in the context of a new nuclear era. Faced with the challenge of maintaining sufficient capacity to accomplish its various postwar noncombat missions, the Army was forced to make difficult choices regarding which capabilities to retain and which to eliminate or deprioritize. The creation of the Army Security Agency in 1945 ensured the security monitoring mission would fall under an organization that championed its interests but prioritized strategic COMINT over tactical security monitoring. The split of the security monitoring and information management missions, recommended by the theater board, left ATIS without an institutional champion. These trends resulted in the elimination of ATIS from the postwar active Army and the deprioritization of the tactical security monitoring mission by 1947.

Between 1945 and 1947, the Army radically restructured from a multimillion-man combat organization to a force of less than a million primarily focused on occupation, territorial defense, and training. While the size of the Army drastically shrank, the variety of missions it was expected to conduct increased. The Army was tasked simultaneously with occupation duties in two separate theaters, providing for the territorial defense of the continental United States, retaining the capability to conduct expeditionary operations to secure U.S. interests globally, and maintaining its ability

to train and mobilize in the event of a general conflict. The Army reorganized units from combined arms formations into constabulary forces to support the increased emphasis on occupation duties. Consequently, the requirement for the types of units that enabled information management and security decreased.

Information Management: 1945–1947

Following the 1946 reorganization, Army Ground Forces (AGF) assumed responsibility for the training and tactical command of ground forces based in the United States and stood up six territorial armies organized to coordinate the training and readiness of subordinate forces. However, these territorial armies were not organized as combat formations like their World War II predecessors.[16] The only true "combat" force envisioned within the Army after the war was the "Strategic Striking Force," later known as the "General Reserve." The original 1945 plan called for two corps—a total of 115,000 soldiers—but the final approved plan in 1947 included only one corps of two divisions.[17] The General Reserve theoretically had a mission that would require information management services, but manpower constraints prevented establishing an ATIS company within the General Reserve. As the Army scaled back the force structure of the General Reserve, the theoretical requirement for an ATIS company evaporated.

The AGF was challenged to maintain sufficient capacity to cover its various defense and mobilization readiness missions. By June 1946, the Signal Corps' end strength had dropped to fifty-six thousand officers and men, less than one-sixth of its strength the year prior.[18] The AGF as a whole had a shortage of fifteen thousand officers.[19] In short, the Army faced a shortage of the experienced staff officers and radio operators required by ATIS. Consequently, the AGF had to make difficult decisions. To meet its requirements the AGF announced its policy in 1946 that it would "hold to the principle that special units should be kept to the minimum, and that standard combat units, properly organized, disciplined, and led, can learn quickly to perform special tasks."[20] The following year, the War Department reorganized the SIAMs, placing a few remaining companies in the Army Reserve without any personnel or equipment assigned.[21] Retaining combat force structure was

the priority to enable the Army's rapid mobilization in the event of a conflict. Consequently, "special units" like the SIAMs were moved to the Army Reserve where they could be filled with personnel and equipment in the event of a general mobilization. The AGF made the assumption that at least in the initial phases of a conflict, a core of well-trained "standard combat units" could make do performing these "special tasks," like information management, for which they had not been designed or trained. With no active-duty force structure, equipment, or even assigned reserve personnel, this effectively marked the end of ATIS.

Information Security: 1945–1947

Immediately following victory in the Pacific, the consensus within the War Department held that few foreign powers were interested in collecting against tactical U.S. military communications; likewise, the United States had little requirement for tactical COMINT collection. Thus, the rapid demobilization of the Army following the conclusion of hostilities resulted in the elimination of most of the Army's tactical COMINT collection capability and the deactivation of virtually all security monitoring elements.[22] The remainder were transferred to the newly established Army Security Agency (ASA). Demobilization left these elements and the ASA at less than 36 percent of its authorized enlisted end strength and 86 percent of its authorized officer end strength by October 1945.[23] Progressive cuts to the Army budget and end strength in 1946 and 1947 forced the ASA to make difficult decisions regarding allocating its limited resources. In line with the U.S. assessment of the strategic situation and its resource constraints, the ASA prioritized strategic fixed-site COMINT collection over maintaining tactical COMINT or security monitoring capability. This decision reflected the overall U.S. assessment that war was not imminent, that future conflicts would be fought in the air, and that the Army would have time to raise new forces at the start of a new conflict. As a result, by the end of 1947, nearly all tactical COMINT and security monitoring elements had been demobilized.[24]

The end of the conflict and the establishment of the ASA also ended the Signal Corps' responsibility for security monitoring and information monitoring to enable decision-making. In essence, this marked the

next phase and the latest defeat for the Signal Corps in a struggle dating back almost fifty years between it and the Military Intelligence Service over the boundaries among intelligence, security, and information.[25] In mid-September, the War Department began administratively transferring COMINT and security roles from the Signal Corps to the Military Intelligence Service within the War Department. On 28 October, the chief of the Military Intelligence Service officially notified the commanding generals of the theaters that all SIGINT and signal security personnel and units would henceforth fall under the ASA.[26] The decision split the three functions of monitoring between two different services. Ensuring the communication of priority information remained, as it always had, within the Signal Corps' mission. However, securing information from enemy compromise and SIGINT collection now fell under the ASA and the Military Intelligence Service. This decision comported with the theater board's recommendation to separate the information management and security functions. That recommendation and the decision to place all security monitoring elements under the ASA effectively broke up the SIAMs. This meant they would not become part of the postwar force structure and effectively left the tactical information services without an institutional champion, making their mothballing substantially easier.

New Emphasis on Readiness, Information Security, and Monitoring: 1948–1950

As the strategic rivalry with communist powers intensified in late 1947, it became painfully evident to the Army and the new Department of Defense that the Army could not perform its general function of "prompt and sustained combat" against a potential Soviet adversary, even in a nuclear context. This led to a reconsideration of how the Army should secure and manage its information. However, the continuing emphasis on occupation duties and perennial budget and manpower shortfalls left the overall dynamic unchanged from previous years. Over half of the U.S. Army remained organized for and employed in overseas occupation duties, and one-third of its budget supported relief efforts. Only one-eighth of its budget was earmarked for new equipment, and a declining percentage of personnel scored in the higher mental categories needed to fill out the highly technical information-related fields.[27] This meant little room for growth in new, highly resource-intensive missions.
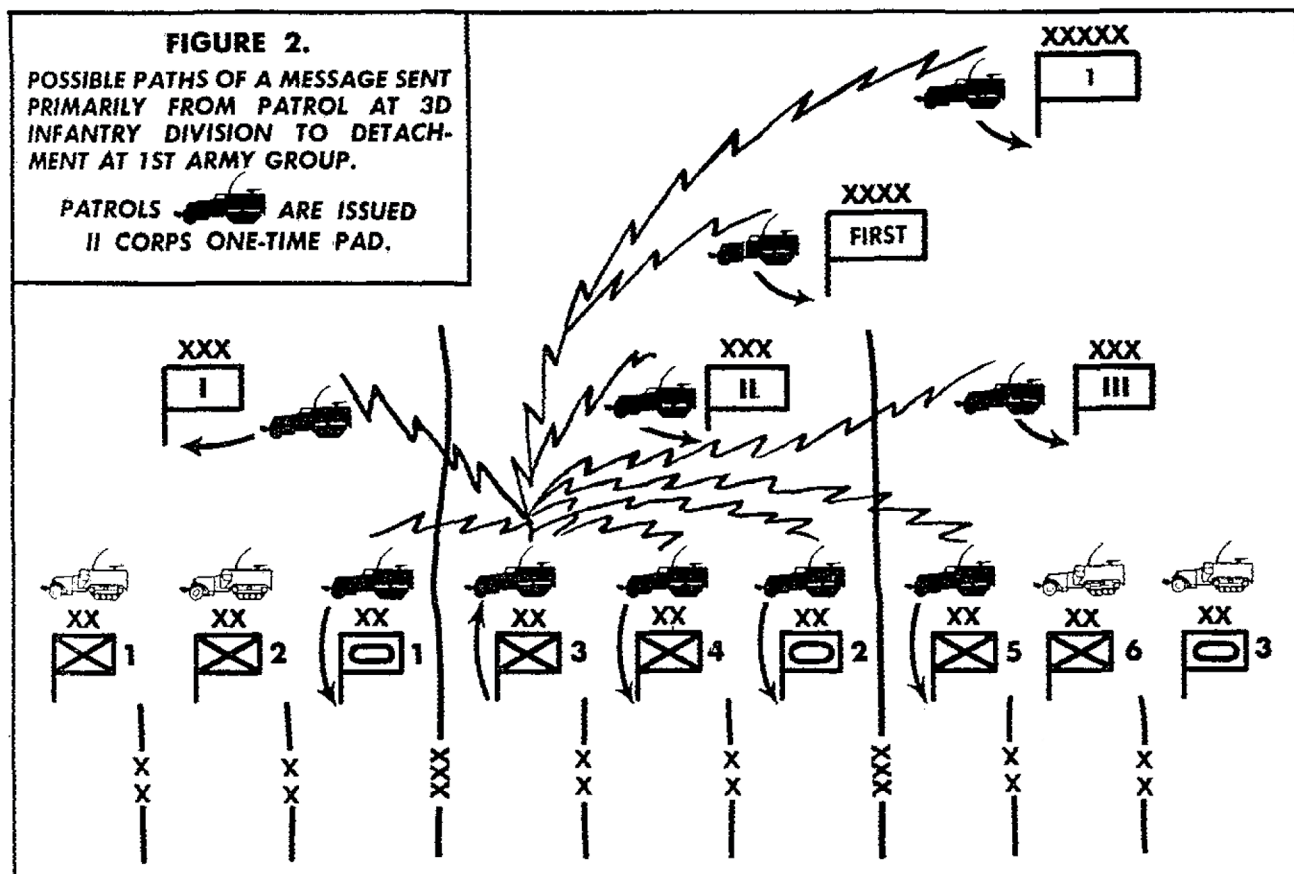
Information Management: 1948–1950

The growing concern over the possibility of ground combat with the Soviet Union in Europe may have contributed to a brief reexamination of the Army's approach to information management but did not ultimately result in the fielding of active tactical information services. In the August 1949 edition of *Military Review*, John S. D. Eisenhower argued for the continued utility of ATIS, particularly in the types of mobile and intensive future ground combat the Army envisioned.[28] Eisenhower had served in a SIAM in Europe in 1945 and had been a member of the theater board that recommended the continuation of ATIS after the conflict.[29] Yet, despite his prominence as Eisenhower's son, there is little indication that the younger Eisenhower's article sparked a more extensive discussion of returning ATIS to the active force within the Army.

In response to greater agency emphasis on tactical field support, the ASA considered designing a communication reconnaissance company in April 1950 that included security monitoring and "staff information monitoring" missions, effectively resurrecting the old SIAM model.[30] However, this would have represented an expansion outside ASA's mission and was contrary to the recommendations of the theater board. Consequently, the company was not adopted, and the ASA pursued creating pure tactical security monitoring companies. Thus, despite continuing to recognize the potential requirement for elements dedicated to performing information management tasks in future ground combat, resource constraints and a lack of an institutional champion with the mission to conduct information management stymied progress.

Information Security: 1948–1950

Beginning in mid-1948, the ASA began to pivot toward reemphasizing tactical-level support and security monitoring. The creation of the strategic-focused Armed Forces Security Agency and the separation of the United States Air Force Security Service from ASA in 1948–1949 gave ASA both the opportunity and institutional imperative to refocus on more

FIGURE 2.

POSSIBLE PATHS OF A MESSAGE SENT PRIMARILY FROM PATROL AT 3D INFANTRY DIVISION TO DETACHMENT AT 1ST ARMY GROUP.

PATROLS ARE ISSUED II CORPS ONE-TIME PAD.

An example of a staff information and monitoring communications structure. (Figure from John S. D. Eisenhower, "The Army Tactical Information Services," *Military Review* 29, no. 5 [1949]: 34)

tactical support and "mobile" missions. Yet ASA's efforts through the end of 1950 fell woefully short of implementing the best practices identified in 1945, partly due to a continuing stagnation in end strength and budget.[31]

Starting in July 1948, the ASA began receiving increasing demand from Eighth Army stationed in Japan for mobile tactical COMINT and security monitoring support. ASA had no mobile COMINT or security monitoring formations in its inventory. Still, as a gap-fill measure, the ASA ordered the 50th Signal Service Detachment in Japan to begin communication security monitoring in Far East Command as a "semi-mobile" unit.[32] This would prove to be a remarkably prescient and vital step, as the 50th Signal Service Detachment would be the only security monitoring element initially available for deployment to Korea in mid-1950.

In response to the requirement for additional tactical support, the ASA began training select elements to perform a mobile communications security mission and participated in its first tactical exercises starting in late 1948. From 1949 to 1950, the 60th Signal Service Company at Fort Lewis, Washington, served as the agency's test bed for mobile field support. In the summer of 1949, the company began preparation to transition from fixed-station missions to training for mobile COMINT collection and security monitoring missions and assignment as part of the General Reserve.[33] Yet, the company only finally reached its full strength of 242 enlisted personnel in November 1949 and did not begin its mobile collection training until March 1950.[34] Reflecting the Army's lack of emphasis on tactical monitoring, most of the assigned equipment had been in long-term storage since 1946 and was in poor repair.[35] The changes in the 60th Signal Service Company represented the first attempts to encourage innovation within the tactical security monitoring mission since World War II. Yet, manpower and equipment shortfalls inhibited its operations and experimentation. ASA tactical elements also remained

undifferentiated during the period, with its signal service companies tasked to perform both COMINT collection and security monitoring.

Eighth Army's request importantly demonstrated the clear lack of force structure needed to provide tactical signal security support to field armies in combat. With a clear requirement, ASA sought to change this with the design of Table of Organization and Equipment (T/O&E) 32-500 in January 1950. The plan called for a communications reconnaissance group at the Army level and dedicated intelligence and security monitoring companies at the corps level.[36] Communications reconnaissance companies (security) were tasked with providing full twenty-four-hour per day coverage of corps and below radio circuits.[37] T/O&E 32-500 was remarkably similar to the recommendations in the theater board of 1945; however, ongoing personnel shortfalls within the agency and the continuing requirement to maintain fixed sites initially prevented the establishment of these organizations before the start of the Korean War.[38] Also, simply redesigning the company did not yield the practical understanding of how it would work—that had atrophied.

Capability Shortfall in Korea

Once hostilities commenced in Korea, ASA dispatched detachments from ASA-Pacific to Korea with Eighth Army as a stopgap. While they were not explicitly trained for tactical security monitoring, they helped close the short-term security gap. Eventually dedicated tactical security monitoring elements were deployed, but they had to be created from scratch, and lessons about their employment relearned. Ultimately, it wouldn't be until over a year into the conflict before the Army deployed fully mission-capable communications security monitoring elements. On 25 August 1950, the 50th Signal Service Detachment was alerted for deployment and arrived at Pusan on 2 October.[39] This small detachment, consisting of only two officers and thirty-five enlisted soldiers, monitored Eighth Army radio nets from 3 October 1950 to 5 April 1951.[40] This element helped reduce Eighth Army radio procedural discrepancies from 7.38 discrepancies per minute in December 1950 to 1.7 per minute in March 1951 and COMSEC violations from a peak of 438 to 158 per day over the same period.[41] The intervention of this small, low-density organization resulted in a significant return on investment and operational-level outcome.

While the 50th Signal Service Detachment served as a temporary security monitoring measure in Korea, the ASA formed a new dedicated security monitoring element under T/O&E 32-500: the 352nd Communications Reconnaissance Company (Security). The company authorized eight officers and 152 men but had no personnel or equipment assigned until 8 October 1950 and only began to reach full manning by mid-December 1950.[42] Development of operational procedures for the company also progressed slowly due to equipment shortages, personnel turnover, and shortfalls in qualified technical personnel.[43] The ASA, Eighth Army, and the 352nd also struggled to define precisely how the company should be employed operationally. The company initially trained and organized itself to embed monitoring teams at the division and regimental levels and establish its company headquarters and analysis section at the corps level. Instead, Headquarters ASA Pacific determined that it would be necessary to embed teams at the corps level and maintain the company headquarters and analysis element with Eighth Army Headquarters.

ASA's annual history opined that confusion regarding the organization and operational methods of the company "resulted from the fact that the company represented a new idea, and its operation in the field could not be clearly visualized in detail."[44] In fact, this organization did

Maj. Spencer L. French, U.S. Army, is a career military intelligence officer. He is a U.S. Army Goodpaster Scholar—Advanced Strategic Planning and Policy Program and PhD student at George Washington University. He has served in various command and staff positions in the 101st Airborne Division, 82nd Airborne Division, and U.S. Army Intelligence and Security Command, and deployed five times in support of Operations Enduring Freedom, Inherent Resolve, and Freedoms Sentinel. He holds a BS in foreign service from Georgetown University, an MA in global security studies from Johns Hopkins University, and an MMAS from the U.S. Army Command and General Staff College. His research interests focus on historical military innovation and force design.

Lt. Gen. Thomas Hickey (*right*), U.S. Army Forces in the Far East deputy commanding general, inspects the 50th Signal Battalion, XVI U.S. Corps, at Camp Sendai, Japan, on 16 February 1954. He was accompanied by Maj. Gen. Samuel T. Williams, XVI U.S. Corps commanding general (*not shown*), and Lt. Col. E. O. Lindner (*second from left*), 50th Signal Battalion. (Photo by U.S. Army Signal Corps, courtesy of the National Archives)

not represent a new concept. The company largely mirrored the proposed structure recommended by the theater board in 1945. The lack of detailed organizational procedures reflected the Army's failure to establish such organizations in the intervening five years rather than the creation of an entirely innovative construct in 1950.

The first elements of the 352nd arrived in Korea in late February 1951 and began handover with the 50th Signal Service Detachment in mid-March. By 7 April 1951, turnover was complete, and the 352nd assumed operational responsibility for security monitoring

of Eighth Army in Korea.[45] In total, the ASA field elements provided progressively higher quality and quantity support to Eighth Army over the first year of the Korean War. Security monitoring efforts markedly decreased communications security violations as the ASA fielded more dedicated security monitoring elements. By the end of the conflict's first year, the ASA was fielding dedicated security monitoring organizations similar to those envisioned at the end of World War II. The initial shortfall in communication security in the opening phases of the conflict can be attributed in part to the inability of the Army to innovate within the security monitoring mission during the intervening years between World War II and the Korean War.

Eighth Army did not possess ATIS at the outset of the Korean War and never reestablished it, likely contributing to poor performance during the opening phases of the conflict. In early 1950, Eighth Army possessed none of the requisite resources to create an information management organization, even if it had

elected to do so. The Army as a whole did not field organizations dedicated to managing information, and there is no indication that Eighth Army considered creating one from existing organizations like Third Army did in World War II. This may have been mainly because Eighth Army suffered from significant shortages of officers with the requisite staff skills and combat experience described in the theater board.[46] Similarly, it lacked trained noncommissioned officers capable of serving in ATIS, with over one-third of its sergeants possessing "below average intelligence and having only a grade-school education."[47] Furthermore, Eighth Army lacked the communications equipment necessary for such an organization to conduct its mission.[48] Therefore, Eighth Army went into combat without an existing ATIS and lacked the requisite resources and operational concepts to build one. The lack of an existing ATIS likely contributed to poorer performance during retrograde operations during the summer and then again during the fall of 1950. During the delay and retrograde operations, Army elements often struggled to maintain situational awareness of the overall disposition of friendly units and the location of the forward line of troops. In addition, the rapid pace of movement and intermixing of forces often led to confusion and an inability of Army elements to form a cohesive and mutually supporting line of defense against the Korean People's Army and later Chinese People's Volunteers.[49] Combat operations in World War II strongly indicated that tactical information services greatly enhanced the ability of Army elements to maintain situational awareness in fluid situations. It is probable that ATIS could have performed a similar function and mitigated some poor information management during the high tempo delay and retrograde operations in 1950.

Conclusion

Postwar mission changes, resource constraints, and lack of institutional support played an important role in inhibiting innovation within information management and security missions following World War II. The lack of a clear adversary and combat role for the Army reinforced the natural inclination within military organizations toward inertia. When faced with resource shortages, the Army invested in its core capacities at the expense of innovating in the information

management and security realms. As internal reorganization and redistribution of missions within the Army played out after the war, ATIS was left without a clear institutional supporter, fell through the bureaucratic cracks, and expired. In contrast, the information security mission survived in a reduced form within the newly reorganized ASA. While these decisions allowed the Army to retain the necessary capacity to mobilize rapidly in the event of a conflict, they left the Army unable to perform information management and security missions at the start of the Korean War.

World War II experience allowed the Army to develop new innovative organizational and doctrinal concepts for information management and security in the postwar years. Yet, the proposed organizations, like dedicated security monitoring companies and ATIS, promised to be highly manpower and equipment intensive. Demobilization and budget cuts imposed substantial constraints on the Army. Shortly after the end of hostilities, the Army faced an overall manpower shortage and a particularly acute talent shortage as its ability to access high potential and skilled manpower evaporated with the halt in conscription. Consequently, the Army was forced to make difficult decisions regarding where to invest its limited fiscal and manpower resources.

Facing resource constraints and an unpredictable year-to-year budget, the Army repeatedly decided to invest in retaining capacity rather than developing new information management capabilities. The AGF specifically worked to maintain combat forces at the expense of specialty units like ATIS. The lack of field Army-level headquarters requiring information security and management services in a peacetime "occupation duty" Army meant there was no short-term requirement, even though it was acknowledged that such a requirement would likely be present in the event of a large-scale conflict. Thus, the desire to seek cost-effective solutions that fulfilled core Army missions, particularly in the short term, contributed to the Army's decision to defer the transformation of its management missions.

Similarly, budgetary and manpower shortfalls forced the newly established ASA to choose where to prioritize its efforts. Given the strategic requirement for COMINT and the lack of short-term tactical security monitoring requirements, the ASA prioritized fixed-site COMINT collection up to 1950. The ASA

applied additional resources to the problem in 1949 and, by 1950, was beginning to innovate with the development of T/O&E 32-500. However, the lack of resources and the delay in developing dedicated security monitoring organizations meant that the ASA entered the Korean War with no organizations fully formed to take on the role.

The creation of the ASA provided the information security mission with an institutional champion that directly reported to the War Department (later the Department of the Army), but the information management mission was left without one. This lack of institutional support left ATIS vulnerable in the postwar resource-constrained Army. Given that the proposed ATIS would comprise both Signal Corps personnel and staff officers from the combat arms branches, the tactical information services occupied a place between branches and staff sections. Without a vested interest in the concept, no branch, Army command, or staff section was incentivized to prioritize its development in a resource-constrained environment. The transformation of the Army's security and intelligence missions after the war had the direct and unintended consequence of leaving the information management mission behind. When the Korean War erupted, there was no base upon which to rebuild the capability.

Implications

Overall, the experience of the Army's information security and management missions from 1945 to 1950 underscores the difficulty and inherent risks associated with executing transformation in the context of constrained resources and changing mission sets. The Army should remain conscious of the fact that as responsibilities are redistributed across organizations and echelons during transformation, new gaps may emerge. Capabilities that lie at the seams between organizations or missions are at particular risk, however critical they may be, of being deprioritized, particularly when resources are scarce. Consequently, transformation initiatives can inadvertently open new capability gaps.

The Army also cannot automatically assume, as it did in the 1940s, that "standard units" can perform critical specialty functions necessary during conflict. While the Army must maintain a credible tactical force capable of conducting current missions,

disproportionately underinvesting in missions essential for operational- or strategic-level success risks failure in large-scale combat. Similarly, underinvesting in smaller specialty missions can also have an outsized effect on these low-density elements. When considering the current talent shortage, the Army should consider where it invests this most critical of resources and make a coherent decision about maximizing the return on that investment.

The Army should also view with some skepticism the assumption that it can complete transformation efforts once the manpower and budgetary spigots are turned on during conflict. Mobilizing and building out understrength units has its own challenges, but it is arguably significantly more difficult to build out new elements from scratch. Assuming that even the concepts for these organizations and the underlying structures for mobilizing them exist, paper units have no organizational experience or institutional knowledge. Experimental units or others repurposed for the role can be called upon to fill the gap. However, those lacking permanent personnel or equipment and accompanying doctrine may find it challenging and time consuming to transition in conflict.

Transformation is difficult even when mission requirements are uniform, resources are plentiful, and organizational roles and responsibilities are well understood and enduring. Transformation requires overcoming institutional inertia and coherently orchestrating the various doctrinal, materiel, personnel, and other factors. It often requires some degree of experimentation to explore how different parts of a broader transformation enterprise interact once deployed. All of these challenges are multiplied manifold when resources are scarce, mission requirements are diverse, and organizational roles and responsibilities are in flux. The example of the Army information management and security missions in the 1940s suggests that there is likely no simple solution to the complex problem as all investment strategies carry risk, and the choice of foregoing transformation entirely will almost certainly invite defeat in future conflicts. Most likely, the Army of today may be forced to realistically consider where it is willing to see its transformation endeavor or current missions fall short and carefully ensure that it does not open any new gaps while transforming that it cannot reasonably expect to fill quickly. ∎

Notes

1. General Board, U.S. Forces, European Theater, *Army Tactical Information Service*, Study No. 18 (Headquarters, European Theater of Operations [ETO], November 1945), app. 1, https://carlcgsc.libguides.com/ld.php?content_id=52565749.

2. General Board, U.S. Forces, European Theater, *Signal Corps Operations*, Study No. 111 (Headquarters, ETO, November 1945), 8, https://carlcgsc.libguides.com/ld.php?content_id=52621625.

3. Field Manual (FM) 11-20, *Signal Corps Field Manual: Organizations and Operations in the Corps, Army, Theater of Operations, and GHQ* (U.S. Government Printing Office [GPO], 1940 [obsolete]), 45, https://digitalcommons.unl.edu/usarmyfieldmanuals/1/; History of Security Monitoring WWI to 1955, SRH-162, p. 5, Studies on Cryptology, ca. 1952–ca. 1994 (Studies on Cryptology), Records of the National Security Agency/Central Security Service, 1917–1998, Record Group 457 (RG 457), National Archives at College Park, College Park, MD (NACP) (hereinafter cited as SRH-162).

4. FM 11-22, *Signal Operations in the Corps and Army* (U.S. GPO, 1945 [obsolete]), 55.

5. George F. Howe, *American Signal Intelligence in Northwest Africa and Western Europe* (Center for Cryptologic History, 2010), 66.

6. SRH-162, 10.

7. Walter B. Potter, "SIAM–Signal Information and Monitoring," *Military Review* 25, no. 2 (May 1945): 28; Report on Signal Information and Monitoring, Gordon R. Sullivan Papers, box 34, folder 7, p. 5, CSI Studies for Review 1984, U.S. Army History and Heritage Center, https://emuweb.usahec.org/alma/multimedia/975266/20184531MNBT991895563F364796I003.pdf; 15th U.S. Army Group, *Military Encyclopedia* (U.S. Army History and Heritage Center, 1945), 3.

8. Army Security Agency, Histories of Radio Intelligence Units European Theater September 1944 to March 1945, Volume II, SRH-228, pp. 2–3, Studies on Cryptology, RG 457, NACP.

9. Third U.S. Army, *After Action Report Third Army 1 August 1944–9 May 1945: Volume II, Staff Section Reports, G-3* (Third U.S. Army, May 1945), 10.

10. John Nelson Rickard, *Patton at Bay: The Lorraine Campaign, 1944* (Potomac Books, 2004), 94; Robert Willoughby Williams, as told to Lyman C. Anderson, "Third Army Reconnaissance," *Cavalry Journal* (January-February 1945): 23.

11. General Board, *Army Tactical Information Service*, 6.

12. Third Army Radio Intelligence History in Campaign of Western Europe, SRH-042, p. 8, Studies on Cryptology, RG 457, NACP; SHR-162, 7.

13. General Board, *Army Tactical Information Service*, 5–6.

14. Ibid., 3.

15. General Board, *Signal Corps Operations*, 9–10.

16. Joseph Rockis, *Reorganization of Army Ground Forces During the Demobilization Period*, Study No. 3 (U.S. Army Center of Military History [CMH], 1948), 19–20.

17. Ibid., 46.

18. Rebecca Raines, *Getting the Message Through: A Branch History of the U.S. Army Signal Corps* (U.S. Army CMH, 2011), 318.

19. Rockis, *Reorganization of Army Ground Forces*, 34.

20. Ibid., 33.

21. Robert J. Dalessandro, "Lineage and Honors of the 502d Military Intelligence Company," U.S. Army CMH, 5 April 2011, https://www.history.army.mil/html/forcestruc/lineages/branches/mi/0502mico.htm.

22. Army Security Agency (ASA), *Post War Transition Period, The Army Security Agency: 1945–1948* (National Security Agency, 7 April 1952), 32, https://www.nsa.gov/portals/75/documents/news-features/declassified-documents/army-security-agency/asa-history-1945-1948-post-war-transition.pdf.

23. Ibid., 14.

24. ASA, *Summary Annual History Report: ASA and Subordinate Units, 1 July 1948–30 June 1949, Fiscal Year 1949* (Historical Section G-2, Headquarters ASA, 1952), 28, https://media.defense.gov/2021/Jun/30/2002753632/-1/-1/0/ASA-AND-SUBORDINATE-UNITS-HISTORY-1949.PDF; ASA, *Post War Transition Period*, 140.

25. Mark Stout, *World War I and the Foundations of American Intelligence* (University Press of Kansas, 2023), 27.

26. ASA, *Post War Transition Period*, 14; George F. Howe, *American Signal Intelligence in Northwest Africa and Western Europe* (National Security Agency, 2010), 209.

27. Richard Stewart, *American Military History, Volume II: The United States in a Global Era 1917–2008* (U.S. Army CMH, 2010), 208; Brian Linn, *Real Soldiering: The US Army in the Aftermath of War 1815–1980* (University Press of Kansas, 2023), 127.

28. John S. D. Eisenhower, "The Army Tactical Information Services," *Military Review* 29, no. 5 (August 1949): 33.

29. General Board, *Army Tactical Information Service*, 2.

30. ASA, *Summary Annual History Report: ASA and Subordinate Units, 1 July 1949–30 June 1950, Fiscal Year 1950* (Historical Section G-2, Headquarters ASA, 1953), 71, https://www.nsa.gov/portals/75/documents/news-features/declassified-documents/army-security-agency/asa-1950.pdf.

31. Ibid., 1, 39, 63.

32. Ibid., 48.

33. ASA, *Summary Annual History Report: Fiscal Year 1949*, 57.

34. ASA, *Summary Annual History Report: Fiscal Year 1950*, 36, 64.

35. Ibid., 64.

36. Ibid., 48.

37. Ibid., 54.

38. Ibid., 55.

39. ASA, *History of the ASA and Subordinate Units: Fiscal Year 1951*, vol. 1 (Historical Section G-2, Headquarters ASA, 1955), 71.

40. Ibid., 72.

41. Ibid., 73.

42. Ibid., 81.

43. Ibid., 82.

44. Ibid.

45. Ibid., 83.

46. Allan Millett, *The War for Korea, 1950–1951: They Came from the North* (University Press of Kansas, 2010), 79.

47. Ibid., 80.

48. Ibid., 79.

49. Ibid., 146.