New and Different: 2nd Security Force Assistance Brigade's Digital Strategy

by Chief Warrant Officer 3 Nick Rife and Staff Sergeant Joshua Brown

It's no longer the big beating the small, but the fast beating the slow.

— Eric Pearson
Former Chief Commercial and Technology Officer
InterContinental Hotels Group

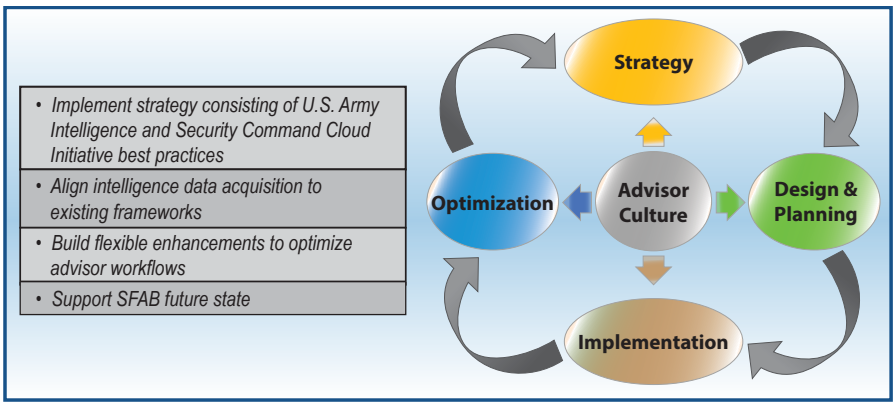
Overview

Digital strategy is a form of strategic management involving the integration and implementation of new technologies to optimize performance. When intelligence professionals consider their future operating environment and organizational capacity, they must ask a few key questions:

- What are the systems, networks, and services needed to connect to where we are going?
- Are the systems accredited and approved for where we are going—do they work and support the mission?
- Do we have enough people knowledgeable on the equipment to maintain and optimize it for the duration to provide intelligence support to mission command?

Deltas exist when modified table of organization and equipment maintenance requirements exceed the S-2's ability to maintain operational capacity. Additional deltas exist when an element's communications transport capacity is so limited that the only recourse for a disadvantaged user is to send a SPOT/SALUTE/RECCEXREP and hope for the best. Closing these deltas and answering the initial key questions is the heart of digital strategy. This is the plight of the intelligence Soldier struggling with digital technology to build the most robust intelligence picture with the fewest mouse clicks. The challenge among tactical Army organizations is creating a digital strategy that integrates commonly understood systems while filling gaps with innovative capabilities that meet the commander's intent.

The security force assistance brigade (SFAB) military intelligence company and brigade S-2 have limited resources, in both personnel and equipment, in comparison to their brigade combat team counterparts. Within the advisor teams, not all intelligence advisors are intelligence Soldiers, and of the ones who are, not all are all-source analysts. The 2nd SFAB provides these Soldiers with a baseline knowledge of intelligence preparation of the battlefield and an effective digital intelligence architecture that minimizes inefficiencies. This results in the ability to overcome gaps in knowledge and experience while maximizing end-user engagement and contributions at a global scale.



2nd SFAB Strategic Approach to Digital Intelligence Activity in Support of Advising

This article discusses the 2nd SFAB's approach to digital strategy in Afghanistan—a strategy scaled in accordance with global persistent or episodic intelligence support to advising. The ambiguity of advisor operations requires intelligence professionals to operate outside of normal comfort zones and maintain digital flexibility as operational conditions evolve. The SFAB established principal tenets through which to effectively apply effort and generate results. They include strategy implementation and refinement, data acquisition alignment, optimization of advisor workflows, and support to the SFABs' future state. Aligning global advising intelligence strategy to those four tenets curbs ambiguity, informs the future, and most importantly, generates results in support of the commander's objectives.

Mission

The Army has many technological capabilities that tactical units are often resistant to utilize due to their configuration-intensive operability. The output generated by legacy systems can be inadequate compared to the time invested, or the systems are cumbersome to maintain. Within the Army intelligence enterprise, "operationalizing" data to drive a commander's decision making is a primary source of user friction as they try to maintain relevance with information collection and analysis.

SFABs are unique in that they must provide multi-echelon intelligence support to develop foreign security force capacity and capability while maximizing interorganizational collaboration. Not only must SFAB intelligence advisors access enterprise information, they must also generate insights from the farthest reaches of the train, advise, and assist (TAA) efforts. Advisors are the SFABs' most valuable sensors with access to partner operational and intelligence information at echelon. Accordingly, SFAB intelligence advisors must develop key competencies, ingesting, enriching, and aggregating information derived from high-threat areas and providing it to the global enterprise.

During its inaugural deployment, 2nd SFAB headquarters, as a mission command element for Train Advise Assist Command-East (TAAC–E), conducted TAA and mission command to enable Afghanistan's security operations against threat groups, including the Taliban, ISIS–K, and the Haqanni Network. The SFAB and subordinate advisor teams established TAA efforts where needed, shaping the information space and supporting development of the Afghan National Defense and Security Forces.

Given 2nd SFAB's mission, brigade intelligence leaders sought to develop a digital strategy inclusive of partners across the Combined Joint Operational Area-Afghanistan (CJOA–A) but adaptable enough to be implemented globally by all SFABs. The digital intelligence environment in Afghanistan is not the same as in Africa. Similarly, the digital capabilities and requirements of Africa are unlike those of the European theater. However, all operational environments share fundamental characteristics, which 2nd SFAB Digital Intelligence Systems Master Gunners identified early on in strategy planning.

The 2nd SFAB's approach requires an understanding of the Army's programmatic and commercial-off-the-shelf digital capabilities. It harnesses best of breed concepts from across the digital technologies, including the Distributed Common Ground System-Army (DCGS–A), Palantir, and Automated Information Discovery Environment (AIDE), without the constraints of system-specific hardware and software. Further, all the SFABs can replicate this approach in Africa, Europe, or the Pacific under existing strategic intelligence support paradigms.

Strategy Implementation and Refinement

To address the challenges associated with enhancing the intelligence reach of an advising brigade, we need to look at digital transformation. Such modernization efforts can polarize staffs and desynchronize the common understanding at echelon. Unique opportunities to integrate emerging capabilities into existing processes commonly go underexploited because those capabilities cause compartmentalized access or generate isolated outputs. Consequently, users rely on unintegrated applications and portals to synthesize data, outsourcing value or extending intelligence fusion timelines beyond the data's value threshold. In both cases, the relevance of the resulting information is jeopardized.

Photo courtesy of SSG Mike Ream

2nd SFAB intelligence personnel at Forward Operating Base Fenty, Afghanistan.

In order to enterprise-enable its data, 2nd SFAB relies on U.S. Army Intelligence and Security Command (INSCOM) mission partners' service-enabled strategy INSCOM Cloud Initiative (ICI). Historically, regionally aligned U.S. Army Forces Command (FORSCOM) intelligence elements have increased their capacity by establishing a relationship with strategic INSCOM organizations with a similar alignment. With support from the FORSCOM G-2, 2nd SFAB and the INSCOM G-37 developed formal points of contact before and during deployment to optimize regional support to forward elements. As a template, this support model is replicable at no cost anywhere else the SFAB will deploy globally.

Major SFAB data products include partner reliability metrics in a purpose-built widget known as Dozer, and three-dimensional photo-mesh renderings processed from a system known as the Aerial Reconnaissance Tactical Edge Mapping and Imagery System (ARTEMIS). (Dozer and ARTEMIS are discussed further in a later section.) The requirement for tracking partner reliability and storing imagery existed before 2nd SFAB's arrival, but a standardized measurement and control mechanisms were lacking. Presenting the data in the browser-based ICI implies integration into a unified interface with the ability to port the ontology to other "like" capabilities. Not only does ICI act as a visualization tool, but it also serves as a low-overhead centralized data brokerage strategy, ensuring a common understanding across digital applications in Afghanistan and worldwide.

Military innovation often occurs from the top down, with a shortened acquisition process resulting in one-size-fits-all programs of record geared toward strategic priorities for pre-established windows of time. Although necessary to the acquisition process, the problem should (and can) define the toolkit rather than the toolkit defining the solution.

Increasingly, the intelligence warfighting function of the future must aggregate outputs from platforms/capabilities outside of program of record supported parameters and integrate them into supported technology frameworks, including for example DCGS–A, ICI, Palantir, and Integrated Tactical Network. This was 2nd SFAB's experience as it explored the current digital domain to drive the common understanding and TAA initiatives, and it represents a new norm for digital integration activities of an SFAB permanently engaged below the threshold of major armed conflict.

Align Intelligence Data Acquisition to Existing Frameworks

As talk of troop reductions and a changing counterterrorism effort permeates the media, opportunities to exploit 2nd SFAB digital strategy "wins" endure past a tactical reset and into the future of security force assistance. Intelligence architectural support is a high-overhead endeavor, which ostensibly will retrograde along with much of the architecture support the theater has enjoyed for nearly two decades. The ability to develop the enemy picture remotely will degrade as intelligence, surveillance, and reconnaissance assets reprioritize to other theaters. When enablers retrograde, the ability to ingest partner information into simplistic object-based production environments must remain. This key assumption and others, including the likelihood that SFABs will be employed in similarly architecture-deprived spaces, guide 2nd SFAB's approach.

Users supporting CJOA–A conduct object-based production with several digital tools. Strategic users might produce in AIDE/Augmented Reality Sandtable (ARES) or DCGS–A, while tactical users might produce in WinTAK or Palantir. Often, the echelon of intelligence support dictates the digital capability with which users conduct analysis. In the past, this simple fact relegated users at each echelon to the common visualization tool their organization had been fielded. Leveraging software as a service (SaaS) fundamentals, Palantir users can ingest data produced in the ICI, and ICI users can interact with objects derived from AIDE/ARES. With enough technical understanding and integration support, SaaS implementation reduces the traditional deltas associated with interoperability.

The approach is similar to the traffic application known as Waze, which has drivers that conduct object-based production as impacts to travel conditions change. With enough users and various other data points adapted to the interface, a robust "multi-intelligence" picture displays—complete with indications and warnings, fuel and resupply points, hazard zones, etc. As advisors either traverse the environment or gain those insights from partners, the same is applicable. The only exception is 2nd SFAB users might interact with the same data in two or three different interfaces.

Build Flexible Enhancements to Optimize Advisor Workflows

In partnership with INSCOM, 2nd SFAB evolved intelligence crowdsourcing techniques by enabling forward tactical intelligence production cycles but displacing enhanced processing and dissemination. This intelligence integration strategy aligns TAAC headquarters with current commercial approaches to data visualization, increasing its value and enabling rapid workflows with commensurate return on operational investment. More importantly, it builds flexibility in a strategically ambiguous environment, should conditions require a rapid shift in posture—matching digital capability to the realities of the operating environment.

One of the SFABs' most critical requirements is tracking the reliability of foreign security force counterparts. Partner reliability metrics exist behind firewalls, passwords, and hard-to-access enclaves. Partner engagement/reliability tools available in CJOA–A were built before the Army established a permanent advisor brigade that exists to deploy and advise at echelon. The expectation is everyone in these brigades will interact daily, in person, with reliable partners. It helps to know who the reliable partners are before arriving in theater. This requires a tool that is globally available and suited for multiple environments or geographic combatant commands, nested into existing technology frameworks.

Optimizing best practices from advisor teams, the 2nd SFAB S-2 and INSCOM developed the partner reliability widget known as Dozer (a play on the word dossier with a *Matrix* namesake, Dozer), which leverages the DCGS–A ontology but is accessible through a widget interface and is optimized with ICI analytics to equate "reliability scores" and develop reliability link diagram graphs. Perhaps the most appealing component to Dozer is the continuity it affords permanently engaged units. The 3rd SFAB now has a user-friendly approach to prepare for deployment from Fort Hood, Texas, with nothing more than a standard SECRET Internet Protocol Router connection. An additional benefit is the access afforded to partner data for wider enterprise use. For example, a Special Forces Operational Detachment Alpha team preparing for a rotation now has user-friendly access to their conventional advisor counterparts. The team also has a nested view of partners within the context of a comprehensive intelligence picture. In the near future, regionally aligned forces moving to U.S. European Command will benefit from the leadership the SFAB has interacted with in the past—all at no unit cost and insignificant training investment.

Additionally, 2nd SFAB discovered value in having all advisor team members input their engagement experiences into a historical intelligence user interface. The logistics advisor, the fires advisor, and the operations advisor all provide engagement information as well. Integrating multifunctional advising information directly into a single information repository correlated with the existing common intelligence picture provides a wealth of knowledge from an intelligence standpoint. In a sensor-deprived environment, Dozer effectively creates a sensor for each warfighting function.

SFABs' organic sensors are not limited to the human domain. ARTEMIS is an organic mechanism for 2nd SFAB to collect timely high-resolution and three-dimensional imagery in support of the commander, advising teams, and partners. It consists of an application workstation and two eBee X small unmanned aircraft system airframes. Furnished by the National Geospatial-Intelligence Agency, the data is processed and disseminated into TAAC–E's common intelligence picture and to the wider enterprise. It goes beyond TAAC–E and encompasses worldwide mission partners and enablers. Matched to the output of a comparable LIDAR (also known as light detection and ranging) sensor, ARTEMIS shortens the tasking, collection, processing, exploitation, and dissemination cycle from 6 days to 6 hours or less depending on data volume.

Advisors use ARTEMIS based on aligning the capabilities and limitations inherent to the platform with TAA priorities and then finding the appropriate mission window to achieve results. In deliberate execution, advisors accomplish airspace de-confliction through a standard concept of operations brief to air traffic control prior to launch, following through with real-time communications during the mission. Advisors accomplish expeditionary de-confliction through line of sight and with team joint tactical air controllers. Each discrete mission profile consists of a route to the target, the target mapping profile, a predetermined hold waypoint, and a landing profile.

In order to disseminate the data to the enterprise, 2nd SFAB retains the capability to process and exploit the data locally but relies on INSCOM to process and service-enable the three-dimensional mesh centrally in the ICI. Such an approach requires the team to be willing to use SaaS techniques. Adding a layer of high fidelity processing, INSCOM further refines the output for mission planning and three-dimensional visualization.

The three-dimensional data published in the ICI as a photo-mesh service provides users the ability to overlay enemy activity, drive mission planning efforts, or assist TAA partner efforts. Specifically, the three-dimensional data was a crucial component to TAA partners following successful security operations in Nangarhar Province. Between July and October 2019, 2nd SFAB captured the entirety of Jalalabad (37 square kilometers) in three-dimensional data using ARTEMIS, which is available in the ICI. The three-dimensional data continues to provide insights into a variety of user groups in and out of Afghanistan.

Support SFABs' Future State

Digital strategies flounder without the ability to maintain digital dexterity as priorities change. Building a theater-centric advisor metrics repository for reliable partners in CJOA–A provides little for advisors who might have to transition to an entirely different theater of operations 9 to 12 months later. Likewise, the applications, portals, and

Photo courtesy of CW3 Nick Rife

A 2nd Security Force Assistance Brigade S-2 noncommissioned officer launches the eBee X platform at Forward Operating Base Fenty, Afghanistan.

repositories filled with 18 years of CJOA–A data are increasingly irrelevant beyond Afghan borders. Leveraging INSCOM's service-enabled strategies broadens the SFABs' digital capability at a fraction of the resources. Under the existing strategic support framework that INSCOM manages, SFABs of the future can prepare to support multi-theater advising and scale seamlessly from home station or the operational environment.

In order to build an advising capacity, repetition and flexibility are critical aspects of the SFAB digital "kit." Traditional systems and processes create inherent filters through user access, permissions, and enclaves. All of these inadvertently establish barriers to understanding and continuity. Equally critical is the ability to integrate with existing FORSCOM and strategic architectures as employed in joint exercise lifecycle events and the broader joint simulation environment. The ICI routinely sets the integration precedent in these lifecycle events, creating opportunities for operational depth, should SFABs be introduced as regular training audiences.

The SFABs' future state requires a digital architecture that is engineered and managed to respond to requirements based on operational conditions. By 2026, 2nd SFAB should not still be saying that three-dimensional imagery services are an advancement in intelligence support to security force assistance. Rather, an entirely different set of operational challenges with new and different platform integration needs will emerge. Intelligence leaders will nest those with an ever-flexible strategy, innovating where necessary, to satisfy requirements.

Conclusion

The 2nd SFAB is not unique in its gaps or the ability to innovate strategies to fill those gaps. What is unique is the flexibility developed through SaaS dissemination techniques and the broadening of strategy effectiveness as a result. Analyzing costs and benefits, as well as expansion opportunities, is critical to problem solving in the digital environment. Saying "this is how we've always done it" has no place in the mindset of the 2nd SFAB intelligence warfighting function. Instead, it is time to ask, "What can I do to innovate, automate, and streamline the system?" More than a guide to inform the activity of security force assistance, 2nd SFAB's experience shows how we can improve digital intelligence strategy throughout our global operations.

Epigraph

Howard Tiersky, "Navigating Digital Transformation," CIO from IDG Communications, May 25, 2017, https://www.cio.com/article/3198121/whats-now-in-digital-transformation.html. Eric Pearson made this comment at the Digital Transformation Summit. A few times each year, senior digital executives from around the world assemble at the summit to discuss the current state of digital evolution.

CW3 Nick Rife serves as the senior all-source intelligence technician for 2nd Security Force Assistance Brigade, headquartered at Fort Bragg, NC. He previously served at U.S. Army Forces Command G-2 as the principal developer of the Digital Intelligence Systems Master Gunner Course; and fusion chief at 82nd Airborne Division G-2 and 4th Brigade Combat Team, 82nd Airborne Division. His campaign support includes Operation Iraqi Freedom, Operation Inherent Resolve, and Operation Freedom's Sentinel.

SSG Joshua Brown serves as the senior signals intelligence sergeant and technical integrator at 2nd Security Force Assistance Brigade, headquartered at Fort Bragg, NC. His military education includes the Basic Operator Training Course, the Digital Network Exploitation Advanced Course, and the Security Force Advisor Course. He served as a flight trainer at Alpha Company, 3rd Military Intelligence Battalion (MI BN) (Aerial Exploitation) and as the Task Force Observe, Detect, Identify, and Neutralize (ODIN) liaison to the General Command of Police Special Units. He also served as the Headquarters and Headquarters Company platoon sergeant and operations noncommissioned officer at the 743rd MI BN. SSG Brown's campaign support includes Operation Freedom's Sentinel.