



A Soldier wears a 1st Security Force Assistance Brigade unit patch. (U.S. Army)

Advising at the battery level

By Capt. Daniel Cummings

Fourth Battalion, 1st Security Force Assistance Brigade was rapidly established in August of 2017. The purpose of 4-1st SFAB is to provide expert artillery advisors to conduct security force assistance with foreign security forces (FSFs). Combat advisor teams (CATs) deployed under Operation Freedom's Sentinel experienced a wide range of diverse missions during their tour of duty in Afghanistan. One team experienced a unique situation while advising an Afghanistan National Army D-30 battery in Tarin Kot, Uruzgan Province. This team's experience provides lessons learned for future artillery advising missions at the battery level.

CAT 1412 began their walk-to-advise mission in April 2018. Since advising missions below the corps level are rare, CAT 1412 did not have much information on

their ANA partners before the initial engagement. The team's information requirements focused on the five requirements for accurate fire, section certification program and maintenance status of the battery's D-30s.

While maneuvering to the firing point, the advisors noted the impact of the terrain on nonstandard conditions. The provincial capital resides in a high desert plain with an elevation of 4,300 feet. In April, the temperature would swing from 9 to 26 degrees Celsius (48 to 78 degrees Fahrenheit). These meteorological conditions would have a significant impact on the accuracy of the projectile if not constantly updated by the fire direction center (FDC).

Initial friction

The team's initial engagements with ANA partners exposed unanticipated fric-

tion points. CAT 1412 experienced frustration while communicating through linguists. Linguists must have a basic understanding of the nomenclature and functions of the D-30s and fire direction equipment to communicate effectively with FSF partners. To solve this issue, the team developed an introductory class for their assigned linguists. This class consisted of pictures with Dari and English captions of D-30 components and operating procedures. The class created a shared understanding between the advisors, linguist and ANA partners.

Advisors must be patient while attempting to develop rapport with their FSF partners. CAT 1412's partners accused past advisors of failing to follow through on promises. The truth of these accusations is not verifiable, and was most likely a tech-

nique to weaken CAT 1412's position while negotiating future training. Advisors must be prepared for their FSF counterparts to treat them as a necessary disruption to their operations until they prove their value.

The battery leadership was hesitant to provide candid feedback regarding their capacity to generate capable sections and conduct operations. CAT 1412's partners would not answer any questions directly or demonstrate their standard operating procedures (SOPs). They claimed most of their equipment was broken or missing; new equipment was required in order for the battery to function effectively. CAT 1412 carried the burden of proof that they could be trusted, and that their proposed changes were worth the effort.

Quick wins

CAT 1412's logistical advisor counterparts provided the team with credibility by delivering "quick wins" for the team. The logistic advisors rapidly resourced materials to fix non-mission capable faults. This caused a positive change in the team's relationship with their ANA counterparts.

At this point, the battery leadership was fully committed to conduct advisor-led individual and section training. The advisors attempted to adjust the battery's SOP in accordance with the ANA D-30 Master Gunner's guidance. This included accounting for meteorological conditions and ammunition information. While observing the battery fire live rounds, the advisors noted that the battery did not apply proposed changes to their SOP. When questioned, the battery leadership responded that they trusted the advisors, but would not implement any changes until they could verify their effectiveness with live rounds.

Live-fire exercise

The challenge was set. The battery leadership determined they would fire one round without the assistance of the advisors. CAT 1412 would then have one chance to solve all sources of error. Once the advisors applied their corrections, the ANA would fire a second round. If the second round hit the target, then the ANA would adjust their SOP.

The battery conducted an abbreviated radar-observed registration. Radar determined the difference between where the round was supposed to impact (should hit data) against where the round actually impacted (did hit data). Determining the difference between the "should hit data"

against the "did hit data" allowed the FDC to quantify cumulative error. The battery fired the first round, and cumulative error was determined.

CAT 1412 assessed several challenges for achieving desired effects on the second round. Achieving accuracy with indirect Fires requires the FDC to compensate for nonstandard conditions. Nonstandard conditions include factors such as the type of projectile, erosion of the tube and the effects of weather. CAT 1412 possessed the capability to account for air temperature, charge temperature and the projectile zone weight. However, the team had no capability to account for any other nonstandard conditions. In addition, the team did not have the capability to provide a secondary independent check of the unit's directional control or computation of firing data.

The second round landed closer to the target due to corrections for charge temperature and projectile zone weight. CAT 1412 exploited this improvement by creating enduring changes to the battery's SOP. The advisors influenced their ANA counterparts to account for projectile zone weight and charge temperature while calculating firing data. The team also developed the ANA's procedures for storing ammunition by storing the rounds on dunnage with overhead cover. Additional changes to their battery SOP were not applied since the round did not directly strike the target.

After action review

Artillery advisors at the battery level must have the ability to act as a secondary independent check of their FSF counterparts. This capability enables artillery advisors to quantify the effects of all nonstandard conditions on the accuracy of their partner's indirect Fires assets.

This effect is achieved by equipping advisors with the same equipment that their partner's utilize. Artillery advisors should have their own aiming circle, gunner's quadrant and charge thermometer in order to verify that their partner's equipment is fully mission capable. In addition, artillery advisors must be able to account for meteorological conditions at the firing point. Environmental meters that account for air temperature, air pressure, wind speed and wind direction at the firing point are available at little cost. Finally, equipping advisors with a pullover gauge will enable teams to determine the shooting strength of their partner's D-30s. This equipment is

adaptable for artillery advisors in any environment.

Recommendation for future advisors

Prior to this deployment, 4-1st SFAB provided its advisors with D-30 familiarization training at the Joint Multinational Readiness Center in Hohenfels, Germany. Advisors developed technical expertise on D-30 maintenance, theory of operation, emplacement standards and fire direction procedures. This training enabled its teams to advise with confidence during our walk-to-advise mission in Tarin Kot.

Currently, the Fires Center of Excellence is developing a similar Foreign Weapons Training program at Fort Sill, Okla. This capability will be an asset for future advisor teams. One aspect that this program should emphasize is maintenance. The ability to conduct pullover gauge readings and correctly identify faults on the D-30 would greatly enhance the credibility of future advisors with their FSF partners.

Future artillery advisors must have a plan to earn the trust of their counterparts following their initial engagements. Artillery advisors must exercise patience until they have earned the trust of their partners. Once they have earned the trust of their partners, the onus is on the artillery advisors to provide their counterparts with compelling quantifiable evidence that will convince their partners to adjust their SOPs. Finally, artillery advisors must have the ability to serve as a secondary independent check for their partner's firing data. They may have to provide compelling quantifiable evidence without notice as part of a live-fire exercise.

CAT 1412's mission was successful due to the ability of the advisors to adapt in an uncertain environment. The team increased the lethality of their ANA partner's indirect Fires, and enabled their success for future missions. The team experienced much frustration while developing rapport and negotiating with their ANA partners. However, the positive effects of their mission were immediately evident during their partner's operations. The advisors sought out to improve an ANA battery, and ultimately improved themselves in the process.

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