Training Notes

Combat-Focused Combined Arms Training

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In the confusion of battle, simplicity often decides success or failure. That statement is especially true when it comes to the connected issues of calls for fire (CFF) and close combat attack (CCA). Non-fire support personnel are by definition the greatest consumers of indirect fire support. Non-aviation personnel are equally by definition the greatest customers for aerial close fires. Those two groups — the non-aviation and the non-fire support personnel — are the same folks. This article suggests methods for both CFF and CCA that are equally simple to train and to remember.

Polar Target Location and Creeping Fires Adjustment

Polar target location is the simplest method for training non-fire support personnel in procedures. The creeping fires method is the simplest way to adjust those fires. There are several other ways to accomplish either or both tasks simultaneously; however, they are best left to fire supporters. A trainer's main goal must be putting a "T" for trained status for the training audience on any given task. Attempting to train on grid, polar and shift from a known point and the various methods of adjustment wastes training time; a non-fire support trainee ends up "drinking from a fire hose." At the end of the day, the trainee may be familiar on all three methods, but he will have mastered — and be comfortable in using — none. Training time these days is precious. We must make the most of it.

So, what makes polar and creeping fires efficient methods? First of all, when used together these two techniques provide the safest and most easily trained method of employing indirect fires. Secondly, the polar method of target location provides a background and methodology for using other fire support assets such as attack aviation and AC-130 gunships. You can "nest" training with follow-on training for CCA, adding to your training evolution. The third reason is that both methods use technology common to almost all Soldiers, especially small unit leaders. Basic

Soldiers with the 1st Battalion, 320th Field Artillery fire in support of the 1st Battalion, 502nd Infantry Regiment, out of Muhumidiyah, Iraq.

2nd Brigade, 101st Airborne Division
Public Affairs Office

needs are a global positioning system (GPS) and an ability to guesstimate range. Although not necessary, a laser range finder will improve the quality of the "polar" plot by adding a more accurate range, and the GPS takes the guesswork out of determining location. You can pretty much assume that a team leader will have a GPS; it is quite likely his Soldiers do as well, given the availability of inexpensive and accurate civilian GPS systems.

A GPS is what makes the polar method the preferred choice for CFF. Polar increases the speed of the initial target location and the adjustment. It reduces the potential for fratricide, provides others with the location of the target in respect to the observer's location, and is easy to train.

The polar method also allows the observer to quickly look at and report his current location to generally within 30 meters, use his compass to determine direction to the target and either "guesstimate" range or use a laser range finder. All this can be done rapidly either as a team or individually, day or night.

In comparison, the grid method involves determining a map spot (inherently inaccurate) or inputting data into a Precision Lightweight GPS Receiver (PLGR) (This involves pushing multiple buttons where each push on a button increases the potential for a mistake, and the datum input are polar measurements anyway). "Shift from a known point" requires a known point, the observer's ability to visualize where the known point actually is, and math.

During limited visibility, these tasks increase in difficulty but to a lesser degree with polar. Under the stress of close combat, these tasks again increase in their perceived complexity. Acquiring polar data is the least complex of the three methods and closely resembles the standard infantry report of direction, distance, and enemy description given by a team leader to a squad leader.

Polar increases the speed of adjustment because observer target (OT) direction is sent in the initial CFF. OT direction is required before the first adjusting round. Soldiers are notorious for forgetting this task. During grid missions, the observer often does not send the OT direction, and the fire direction center (FDC) must request it from the observer or, in the case with mortars, default to the gun target (GT) line. In low-stress classroom training, non-fire support personnel forget to send direction more than 50 percent of the time. Even fire support Soldiers forget this essential task. The chaos of close combat makes missing this critical task even more likely. Imagine the additional seconds or minutes wasted when an FDC must remind the observer about the need for a direction. The observer then has to get out his compass, reacquire the target and send the OT direction transmission. These seconds count because the enemy is now alerted to our use of indirect fire by the impact of the first round.

Captain William J. Dougherty

Staff Sergeant Reed Mathis (left) and Specialist Stidham, both of the 1st Battalion, 502nd Infantry Regiment, stand next to a mortar firing position in Iraq.

The polar method reduces the chances of fratricide, especially when used with creeping fires to adjust. It also provides the most positive control of the initial round's impact location. If the observer can accurately locate himself (usually with a highly accurate GPS), then he can reasonably be assured that the first round will impact at the direction and distance transmitted from his location. Using the grid method, the observer can be reasonably assured the round will impact in the vicinity of the grid transmitted. It is harder to be sure of the accuracy of the grid transmitted as it relates to both target and his location.

Using the polar method also makes it easier to verify in combat that the observer is ensuring the first round impacts at the unit standard distance of first round from friendlies or the appropriate risk estimate distance (RED). Polar also allows FDC personnel to make appropriate shell/fuze decisions based on the observer's location to the initial rounds predicted impact and/or the target. If observers fail to request a delay fuze or a converged sheaf, the FDC can take the appropriate action to mitigate risk. This is especially important when non-fire support personnel are calling for fire support in the confusion of combat.

Grid and shift from known point missions provide the FDC the target location but do not provide the distance between the observer and the first round's predicted impact location. Polar missions provide the FDC with the information to help the observer conduct a safe mission. The use of creeping fires further adds to the safety of the polar method. The creeping fires method represents the most likely adjustment method in combat expected for light infantry. Indirect fires for light forces rarely exceed 600 meters and in most cases will occur within extreme danger close distances in support of meeting engagements, ambushes, and defense of combat outposts. Creeping fires is the doctrinal method of adjusting fires within danger close distances; adjustment of subsequent rounds can be no more than 100 meters.

Polar missions inherently provide higher command posts and headquarters immediate situational awareness on where forces in contact are located. This can be especially important as decisions are made to bring other fire support assets to bear against the enemy. Again, grid only provides the target location and not the observer's location. Of course, friendly information will be passed eventually or even before a fire mission, but the polar mission guarantees it will be sent. Attack aviation assets monitoring a fire support

net are also provided situational awareness of friendly locations should they be brought into the fight and have essentially been given the data required for their own attack aviation CCA.

Soldiers instinctively like the polar method because it is easier to grasp. Whenever non-fire support personnel can choose their method of target location they almost invariably attempt the polar method because it is the easiest to understand and execute.

One argument against the polar mission is that it takes longer for an FDC to determine firing data. This is true because of the need to input the observer's location into fire control computers or on the firing chart. When looked at from just the perspective of the FDC determining firing data, then technically polar missions do take longer. When the polar mission is looked at from the perspective of an observer and especially a non-fire support observer, then a polar mission is faster and more likely to produce a safe first-round impact. With a polar mission, the observer does not have to check a map spot or input polar data into a PLGR, FDCs and leaders who are battle tracking have greater situational awareness, and observers get a better "warm and fuzzy" about the initial round's impact location. A polar mission places more of the button pushing, figuring and shell/fuze decisions onto the FDC. This is the proper place for those tasks when you consider a non-fire support Soldier (or a young forward observer) calling for fire in close combat with failing or no visibility. He may be freezing trying to push buttons on a PLGR or lying prone while being shot at. The FDC, if properly located, is removed from the chaos of the direct firefight to allow for accurate computational procedures to take place. Those involved in the chaos of the direct fire fight should be given the tools and training to keep the CFF as simple and safe as possible.

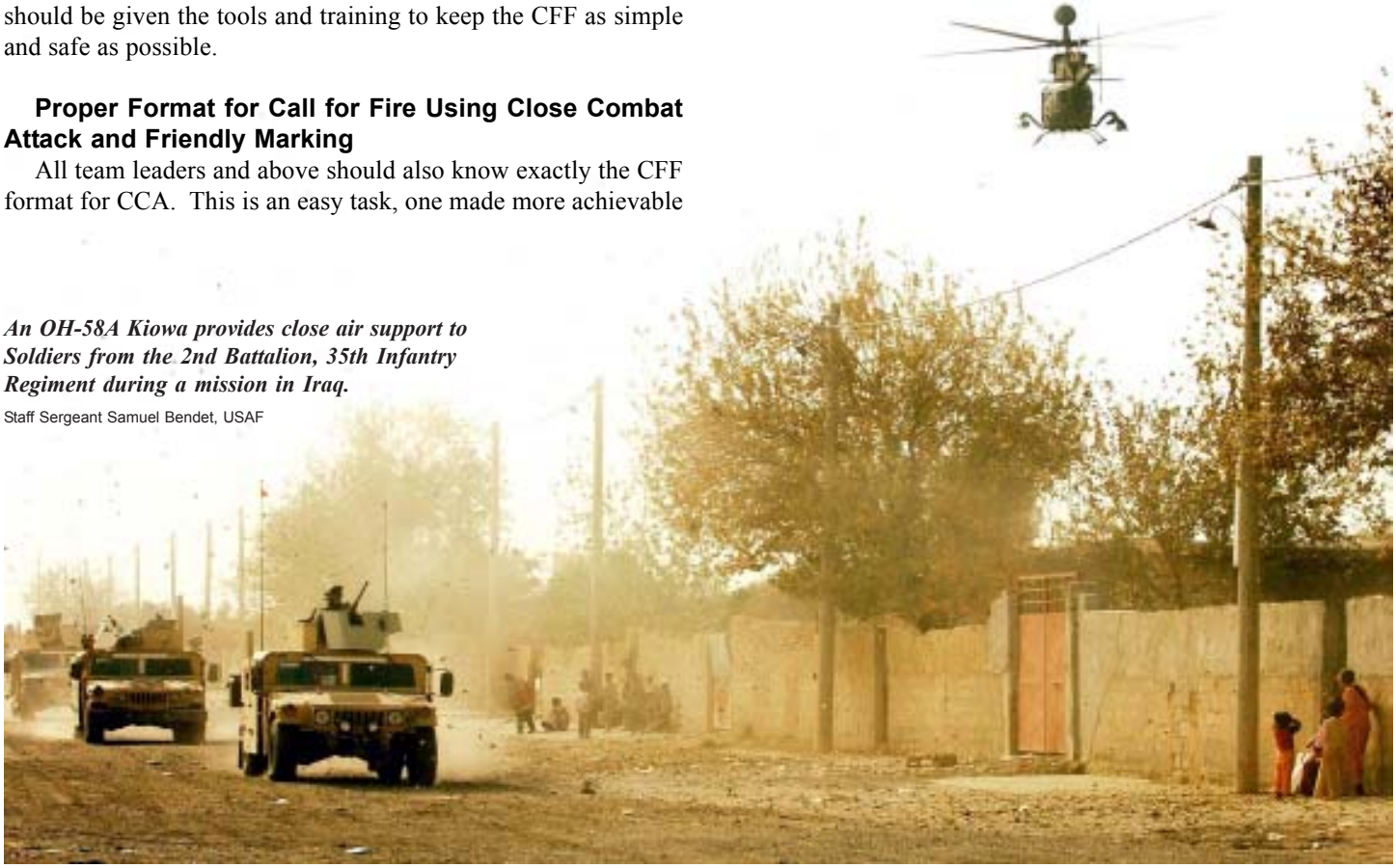
Proper Format for Call for Fire Using Close Combat Attack and Friendly Marking

All team leaders and above should also know exactly the CFF format for CCA. This is an easy task, one made more achievable through the use of the polar method because it automatically includes the vital OT direction. Most personnel who have had formal CCA training understand the essential information that goes into the CFF. What they forget is the proper format.

If your initial response to that is "so what," then you need to reconsider. It is true that no pilot would refuse a CCA because the format is incorrect, but do you want the pilot trying to sort out garbled information while dodging enemy fire? Do you want to wait the extra time required for the pilot to make those adjustments before you get the fires you need? The quickest — and the safest — way to get those fires is to use the proper format correctly. The format is therefore important. If ground personnel send the CFF the same way every time, it increases the efficiency, speed, and safety of the fire mission. The reality of a CCA is ever-increasing chaos. The enemy will be shooting at the observer and the helicopters. Friendly forces will be trying to sort friendly and neutral locations even as they mark that of the enemy with a platoon's worth of lasers, small arms fire, or other marking methods. A standard CFF transmitted correctly will increase chances of success. CCA is the most likely fire support asset we will employ in Iraq; the CFF should be known by all leaders.

Summary Recommendations

None of what was offered above was new, and CCA TTPs have been around since the inception of true indirect fire support and aerial fires. Longevity in a military sense is a strong indicator of both relevance and importance. We have known since WWII just how lethal an infantryman could be when he could bring in



An OH-58A Kiowa provides close air support to Soldiers from the 2nd Battalion, 35th Infantry Regiment during a mission in Iraq.

Staff Sergeant Samuel Bendet, USAF

accurate and timely fire support whether by cannon, rocket, mortar, or aerial means. We also learned just how dangerous an infantryman could be when fire support gets screwed up. In summary, this article closes with some simple recommendations to combat leaders at all levels.

On CFF

o When training non-fire support personnel in CFF, the techniques learned should only be the polar method of target location and the creeping fires method of adjustment. Limiting instruction to these two techniques provides a focus for training objectives, which is especially important given that CFF training probably does not occur as often as it should.

o Train more on CFF. Achieve a "T" status on polar and creeping fires for squad leader and above throughout a battalion. Once this is achieved, move on to a higher level but keep techniques simple that show how to move under the suppression of indirect fires. Example: section/battery left/right.

o Develop a battalion combat focus written exam that incorporates the risk estimate distance for indirect fires in combat. The required RED knowledge should be focused for 155, 105 and 120s, and 60s that are at two-thirds system range at a .01 percent probability of injury. Again, this provides focus on likely assets at probable ranges using acceptable risks that will be used in high intensity combat.

o Purchase more (IFATS) systems so that there is one in each battalion; more IFATS could make the first three recommendations possible. The cost of the systems is significant, but the payoff would far outweigh the investment.

o Recommend to the U.S. Army Infantry Center at Fort Benning that it change the expert infantryman badge (EIB) fire support task to the polar method of target location using the creeping fires method of adjustment. The conditions should allow the observer to use a GPS, have a compass and guesstimate range (this used to be an EIB task). The standard should not be completely based on target location but on where the observer places the first round in an extreme danger close situation. This would involve knowledge of REDs and or a unit SOP on distance from friendlies of the initial rounds impact. Then the observer creeps the rounds back onto the target.

On CCA

o Develop a battalion combat focus written exam that incorporates the 160th Special Operations Aviation Regiment standard CCA CFF and techniques of executing a CCA. Knowledge of the CCA CFF, to standard, is an achievable goal.

o Continue to focus on CCA in dry, live, and maneuver-type training situations so that all leaders understand this valuable fire support asset.

o Recommend the Infantry Center add a "Conduct a CCA CFF" task for EIB. Conditions should incorporate a target, radio, compass and personnel to role play the pilot.

o Standards should have a +/ – for the direction to target and + /– for the range to target and accurate target description. The format of the CCA CFF is sent correctly. This recommendation could spur an Army-wide standard for CCA that would reduce friction and retraining time for PCS'd personnel or when different units support each other in combat.

o Battalions need a standardized marking system. The purchase of the double A strobe should become a priority, and VS17 panels should be an inspectable item for leaders and vehicles.

o Glint tape provides the pilots situational awareness on friendly locations. Glint wears out with exposure to the sun. Propose that this tape be made ready for use with the new combat uniform.

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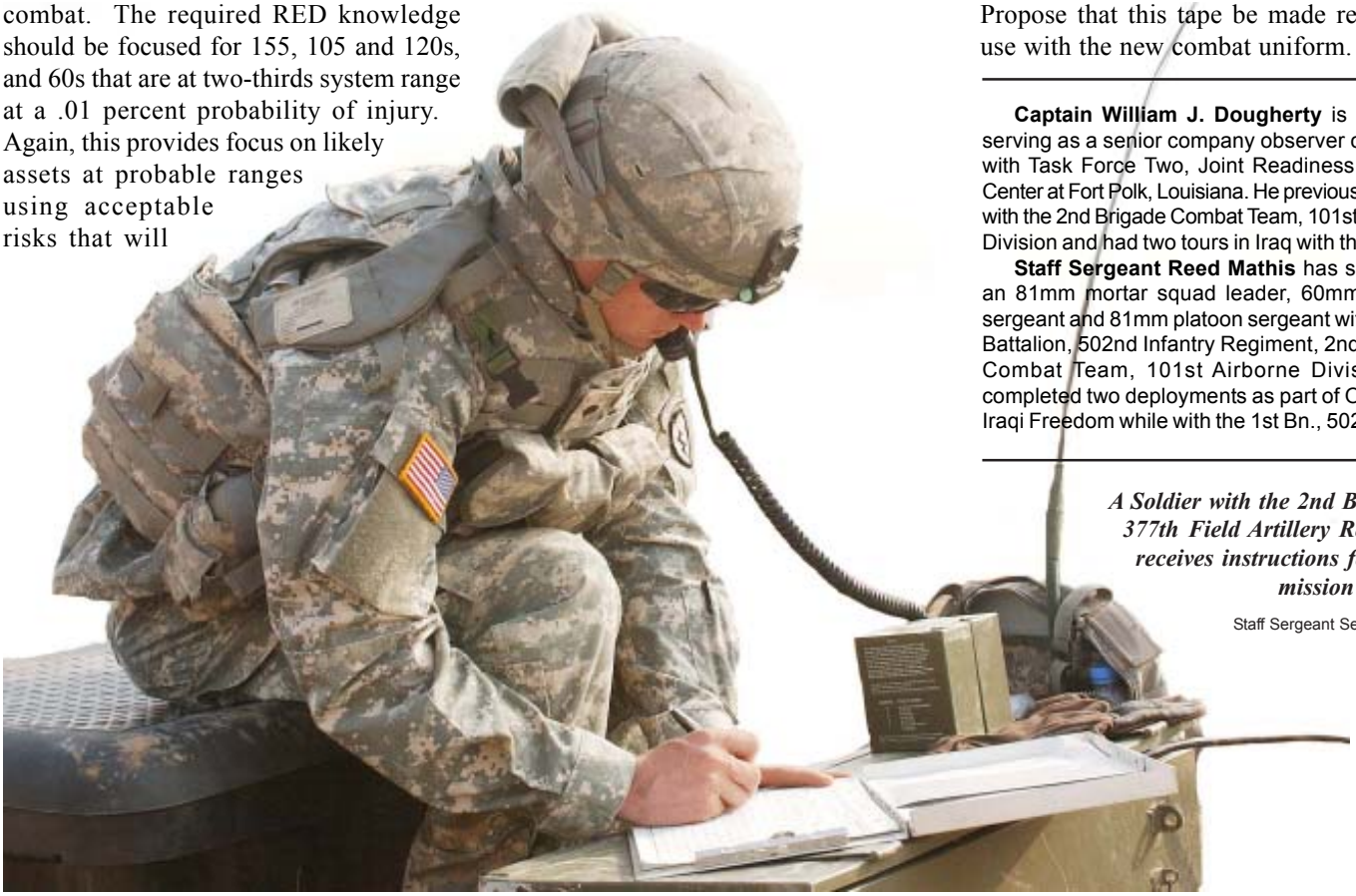

A Soldier with the 2nd Battalion, 377th Field Artillery Regiment, receives instructions for a fire mission in Iraq.

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