

ITAS in OEF: *CODE NAME 'FINGER OF GOD'*

CPT JOSH HARRISON

While deployed to Afghanistan from June 2007 until July 2008, my platoon — the heavy weapons platoon for D Company, 2nd Battalion, 503rd Infantry Regiment — discovered a new way of using the Improved Target Acquisition System (ITAS).

Before the deployment, our ITAS, an organic weapon system for all IBCTs, had never been trained on or even signed out of the arms room because there was no “armor threat” in Operation Enduring Freedom (OEF). In fact, before 2006, our battalion didn’t even have a D Company or heavy weapons platoon. Training for OEF was focused on using our vehicles to close with the enemy and then dismounting and fighting as light infantry. ITAS training was nonexistent, and few Soldiers had training or experience with the system, unless they had received it prior to coming to the unit.

The ITAS system we deployed with was an older version. It had the second generation Forward Looking Infrared (FLIR) for night or “thermal signature” observation that is nearly equal to the Long Range Advanced Scout Surveillance System (LRAS³), a 12X day sight, and a 10K laser range finder. While deployed to Afghanistan, we received four of the newest version of ITAS. These come with all of the aforementioned capabilities plus a far target locator (FTL) feature. The FTL provides a 10-digit grid of the gunner’s location and the target that is lased. This new feature provides us the eyes of LRAS³, the sting of a TOW missile, the ability to generate precision indirect fire missions, and to provide accurate grids for bombing missions. The system became our most effective precision fire weapon system, since no other organic system offers precise, accurate fires to a range of 4,000 meters. Needless to say, ITAS isn’t just an anti-armor weapon. It is



Figure 1

a tremendous combat multiplier in the light infantry, counterinsurgency fight.

Background

First, let me briefly describe the friendly and enemy situation. The anti-Afghan forces (AAF) are experts at the use of terrain and quickly adapt to blue force tactics. The AAF have been fighting on the same terrain their entire lives, and they make excellent use of cover and concealment, normally rocks and caves, that are difficult if not impossible to spot and attack with air support or indirect fire. The AAF know how long it takes for air support, either helicopters or jets, to arrive, and so they strike and disappear before air support can get to them.

During the deployment we identified the need for accurate long-range fires immediately upon arriving in Afghanistan. We began using our ITAS, relying on the experiences of former 11H MOS Soldiers, who had some familiarization with the ITAS and its capabilities. We quickly developed ITAS training and tactics, techniques, and procedures (TTPs) for our platoon.

Ultimately, because of our success with the ITAS in more than 200 engagements with the enemy, the entire task force was cross-trained on use of the ITAS.

Midway through the deployment, my platoon — 1st Platoon (Dragons) — was designated the task force quick reaction force (QRF). In this role we sometimes would have as many as five engagements per day. The ITAS and our ability to employ it made us one of the most lethal platoons in TF ROCK. At the end of the deployment, our TTPs had been refined and passed throughout the TF, which greatly improved the lethality of all. My platoon fired 63 of the 108 missiles fired by TF ROCK, and intelligence gathered indicated that the AAF had given our ITAS the code name “Finger of God.” It isn’t a stretch to say that ITAS went from gathering dust in the arms room to being THE key precision fire weapon system in our task force. Our learning curve with ITAS focused on two primary missions for the system, neither of which were in the traditional anti-armor role: convoy operations and force protection.

Convoy Operations

In garrison, our ITAS is mounted on an M1121, a light-skinned high-mobility multipurpose wheeled vehicle (HMMWV). When deployed, the up-armored M1151 is used. Though both are HMMWVs, they are very different, and the M1151 has to be dramatically modified in order to mount the ITAS. With the gunner's protective kit, the TOW missile cannot be mounted or fired and, without the gunner's protective kit, the TOW gunner is far too exposed. Also, the turret is only set up for one weapon system, so even if we could mount the ITAS the gunner could not protect himself with a secondary weapon system. We modified the M1151 turret to solve all of these issues. By cutting out part of the front quarter of the right turret plate to allow the gunner access to the ITAS hand controls, we were able to mount the ITAS. We removed all but the bottom two bolts from the back of the turret in order to allow it to drop-down. We fastened the back of the turret in the up position with two pins to give the gunner protection to the rear. When we fired a missile, the gunner removed the pins, dropped the rear panel, and fired. To allow the use of an alternate weapon that doesn't interfere with the operation of the ITAS, a machine gun mount was welded towards the front of the left turret panel. Ammo for the weapon was contained in a discarded linked 40mm (MK-19) ammo can that is bolted to the outside of the left turret panel (See Figure 1).

With the ability to mount the ITAS, it became an integral part in all convoys. When engaged, the front and rear elements returned fire, fixing the enemy and allowing the ITAS truck to move out of the kill zone to a covered and concealed position. With the system's optics and FLIR sensors, we quickly located the enemy and destroyed them with missiles. Nothing ends a fight like a TOW missile taking out an entire enemy machine gun team, rocket-propelled grenade (RPG) team, or a command and control section that thinks they have positioned themselves with enough stand off to be safe! With an ITAS in the convoy, the AAF would not conduct a hasty attack on the convoy and no longer viewed convoys as target of opportunities.

Force Protection

Our security was built around the ITAS and was designed to provide 360-degree surveillance and fire. Initially, we achieved large fields of fire for our dismounted ITAS positions, but with limited flank and overhead protection from AAF fire and observation, we again modified our equipment to fit

The ITAS was able to detect the AAF moving into position, which allowed us to fire first and surprise the enemy, even though we were on the defense.

our needs. We improved our positions to keep 360-degree fields of fire/back-blast clearance.

To power the system 24/7, we requested lithium-ion AC chargers (LIACs) from the ITAS project office that would hook-up to our generators. The LIAC allowed us to continuously run the ITAS without relying on a vehicle to charge its battery. We custom-made an ITAS mount by cementing a 4-inch diameter pipe (with holes cut in it for cables) into the ground. With the ITAS system's "dog collar" attaching the ITAS to the pipe and an add-on seat, gunners could either stand or sit for sustained operations (See Figure 2). To avoid the time required for system cool-down, we learned to never shut the system down but switch it to "stand-by" mode.

The ITAS was able to detect the AAF moving into position, which allowed us to fire first and surprise the enemy, even though we were on the defense. We coordinated indirect fires, close air support (CAS), and TOW missile strikes to destroy the enemy before they could initiate their attack or even come within maximum effective range of their weapon systems. ITAS simply owns the night — the enemy never knew what hit them! If the AAF initiated the attack, ITAS was much quicker than the naked eye in finding their positions and was much faster at destroying them, since it was almost always a guaranteed one shot one kill.

Other Lessons Learned for ITAS

The FTL brings a whole new capability to the light infantry. In addition to the ITAS gunner providing or verifying grid locations of targets for indirect fires, FTL can work in reverse to find targets with grid coordinates provided by external sources. During an operation, two intelligence, surveillance, and reconnaissance (ISR) teams were able to identify and triangulate where the AAF command

Figure 2



ITAS Far Target Locator

FTL Description

Benefits



- * Precision Attitude Determination Subsystem (PADS)
 - 2 GPSIS receivers, 1 GPSIS processor, and inclinometer
 - Determines self-location and bearing to target
- * The existing ITAS LRF determines range to target
- * PADS aligned to the optical line-of-sight of the ITAS
- * The ITAS computes target location using bearing from PADS and range from LRF
- * Self-position and target location are displayed in gunner's display and commander's view
- * Integrated PEQ-2 mount

- * Provides 10-digit grid coordinate to the gunner
- * Accuracy determination of enemy position (60m CEP)
- * Provides enhancement to the ITAS' responsiveness and situational awareness
 - Transmission of accurate and timely enemy positions
 - Enables responsive fires (either direct or indirect)
- * Self-position and target location displayed in gunner's eyepiece and commander's view



Figure 3

and control section was positioned and provide a grid location back to the ITAS gunner. A map check got us close and after a few attempts "lasing selected targets" and comparing coordinates with the FTL, we identified the exact cave that the AAF were in and destroyed it with a missile. Without the FTL we never would have found the cave because it was nearly indistinguishable from the rest of the terrain and impossible to see by the naked eye.

The ITAS helped to make our cordon and search missions more successful. The ITAS' thermal sights can see people moving in dark openings, behind thin curtains, and in open doorways. Anywhere there is a temperature delta, ITAS can detect it. Even when the daytime heat in the summer made it hard to use the thermals, we still had the 12X day view optics (no thermal).

Battle damage assessments (BDA) could be done with the ITAS. During direct engagements with the enemy, we were able to identify enemy combatants lying on the

ground. Without the thermals, we could not tell if the enemy was dead or just lying still, but with the thermals we were able to see the body cool and know that he was no longer a threat.

With the increased surveillance and FTL capability of the ITAS, proper radio and reporting procedures, in addition to a trained truck commander (TC), are musts. The ITAS will be able to see things no one else can and this information must be disseminated. The TC needs to ensure that the gunner is reporting everything and not getting fixated on one particular area or target.

The Missile

We initially had challenges getting TOW missiles into theater, which made us very conservative in our missile use. Throughout the deployment, our supply of missiles improved. We received and used TOW 2A missiles exclusively.

We developed the following lessons for using missiles:

- The missile will shoot UP into targets. Unlike indirect fire or CAS, which is normally fired DOWN onto the target with little effect, a TOW missile can be fired UP into a cave or rock overhang and destroy the enemy.
- A TOW missile is precise! It can be steered into a window or cave entrance. It can also be fired danger close to friendly units in extreme cases.
- Standoff range is 3,750 meters to fire a missile, but the ability to detect the enemy's movement is far greater, which allows you to prepare a coordinated engagement using indirect fire with the missile to mass the effects and have air assets enroute before the enemy is ever close enough to shoot back at you.
- In light contact, the ITAS gunner should talk other guns onto the enemy, in order to kill the enemy without having to use the TOW missile.
 - If the enemy is fixed and exposed, attempt to kill him with other weapon systems first — indirect or direct fire.
 - If the enemy is in a bunker, cave, fortified

fighting position, or about to get away, then engage and destroy with a TOW missile.

- In heavy contact, have ITAS/TOW located with the platoon leader or platoon sergeant so you can immediately engage if targets are located.

- Train the gunner to look for the most casualty producing weapons first.

- In a heavy engagement, some enemy will always be in a group. The gunner should ignore individuals and scan until he identifies a group.

- If the missile's wire breaks:

- Check the system before firing another missile. If the wire got caught on something metal, it can cause critical errors in the ITAS.

- The gunner must address the critical errors before engaging another target or the next missile will misfire.

- Missile engagement considerations:

- Power lines, concertina wire, body of water, or any type obstacle between you and the target.

- Do not use missiles with a broken seal unless it is all you have; a misfire takes a long time to correct.

- Record the lot number of faulty missile and check against other missiles.

- Due to the potential of wire breaks, don't fire over friendly units or civilians.

New ITAS and TOW Missile Improvements

As previously mentioned, the new FTL system allows for greater situational awareness for the gunner and the commander on the ground. It adds a great capability to an already great weapon system. Additionally, they are looking at the possibility of networking the ITAS enabling target locations to be passed to other shooters.

The TOW missile is going wireless! New missiles will be controlled by radio frequencies without modifications to the launcher. Also, the TOW Bunker Buster is back in production and will be issued to IBCTs (initially, there were just a few produced for the Stryker brigades). With the capability for direct, precision fires and a larger fragmenting warhead, it will be the weapon of choice to attack caves and hidden targets with overhead cover in OEF. Bunker Busters are scheduled to be delivered in 2009.

Summary

ITAS with TOW missiles are the light infantry's direct fire artillery. As a shooter, ITAS is a precision fire system capable of putting a missile with significant explosives in a cave or through a window and then providing BDA with its thermal sights. ITAS is capable of directing other fires onto the target or passing ten-digit grids to other shooters.

CPT Josh Harrison is a graduate of Carson Newman College and received his commission through ROTC. He is a graduate of the Infantry Officers Basic Course, Maneuver Captains Career Course, Airborne School, Recon Surveillance Leaders Course, and Ranger School. He was a platoon leader for D Company, 2nd Battalion, 503rd Infantry, 173d Airborne Brigade during OEF VIII. He is currently assigned to the 4th Ranger Training Battalion, Fort Benning, Ga.

A Bridge Too Far? **THE LOST ART OF COMMANDER'S INTENT**

MAJ MICHAEL MULHERIN

“The commander's intent is a clear, concise statement of what the force must do and the conditions the force must establish with respect to the enemy, terrain, and civil considerations that represent the desired end state”

– FM 3-0, Operations, February 2008

We are quickly forgetting we are an intent driven army. At every level of war, commander's intent is becoming an increasingly endangered species through misinterpretation of its purpose, lack of understanding of its composition, and the inability of commanders to communicate their intent. Regardless of any other doctrinal publication, methodology, or technique, we risk losing our greatest strength and attribute — initiative — if we fail to understand commander's intent.

Beginning with our earliest military science classes, leaders are schooled to understand that commander's intent is the bridge between our mission and our concept of the operation. Regardless of how the situation changes, it provides us with what success looks like at the end of a mission. Commander's intent is not parameters or boundaries to work within. They are the pieces of the bridge that must be in place before you can cross over to achieving your purpose, even if the bridge is in a different location, over a much different gap than expected.

The importance with this difference is that understanding commander's intent, as parameters or boundaries, creates an environment where you expect your subordinates to make a decision as if they were you within a given set of circumstances. This is counterintuitive to encouraging your subordinates to exercise initiative. If they make a decision you aren't pleased with, they didn't “understand your intent,” when in reality they just couldn't read your mind. This allows for a significant possibility of error, since few people (if any) have the ability to read minds. Instead, your commander's intent should describe to them, in simple terms, what success looks like at the end of the mission, and allow them to exercise their initiative to figure out how to reach that key task accomplishment, or condition with respect to the enemy, terrain, or civil considerations.

Commander's intent comes in many forms. Our doctrine

states commander's intent can be in bullet or paragraph form, but should not exceed five sentences. Everyone has certainly seen examples where the commander's intent is structured with "Expanded Purpose," "Key Tasks," and "End State." Expanded purpose can lead us into a totally separate discussion, so I will just focus on key tasks and end state. Why do we separate the two? If I gave the key task of "Seize all key terrain in sector," couldn't I also express that as "All key terrain in sector seized?" There is no need to draw a division between key tasks and conditions. Separating these two categories just increases the chance that you will become redundant (by stating key tasks that will set conditions described in your desired end state),

that you will provide key tasks that are course of action specific, and that your commander's intent will become much greater than five sentences or bullets.

We know the Army says commander's intent should not exceed three-to-five sentences (or bullets), because our span of control is three to five elements. If we exceed five elements, our ability to focus, control, or understand begins to rapidly deteriorate. It is not uncommon for commanders' intents in Afghanistan and Iraq to be 10 or 11 (if not more) bullets. If commander's intent is going to be remembered two levels down and serve as a guide during planning and execution when conditions change, how can you reasonably focus on that many key tasks or conditions? There is no reason why, at all levels of planning, we can't have the same structure of "Expanded Purpose" (optional), and three-to-five bullet statements providing key tasks and/or conditions in respect to the enemy, terrain, and civil considerations that represent the

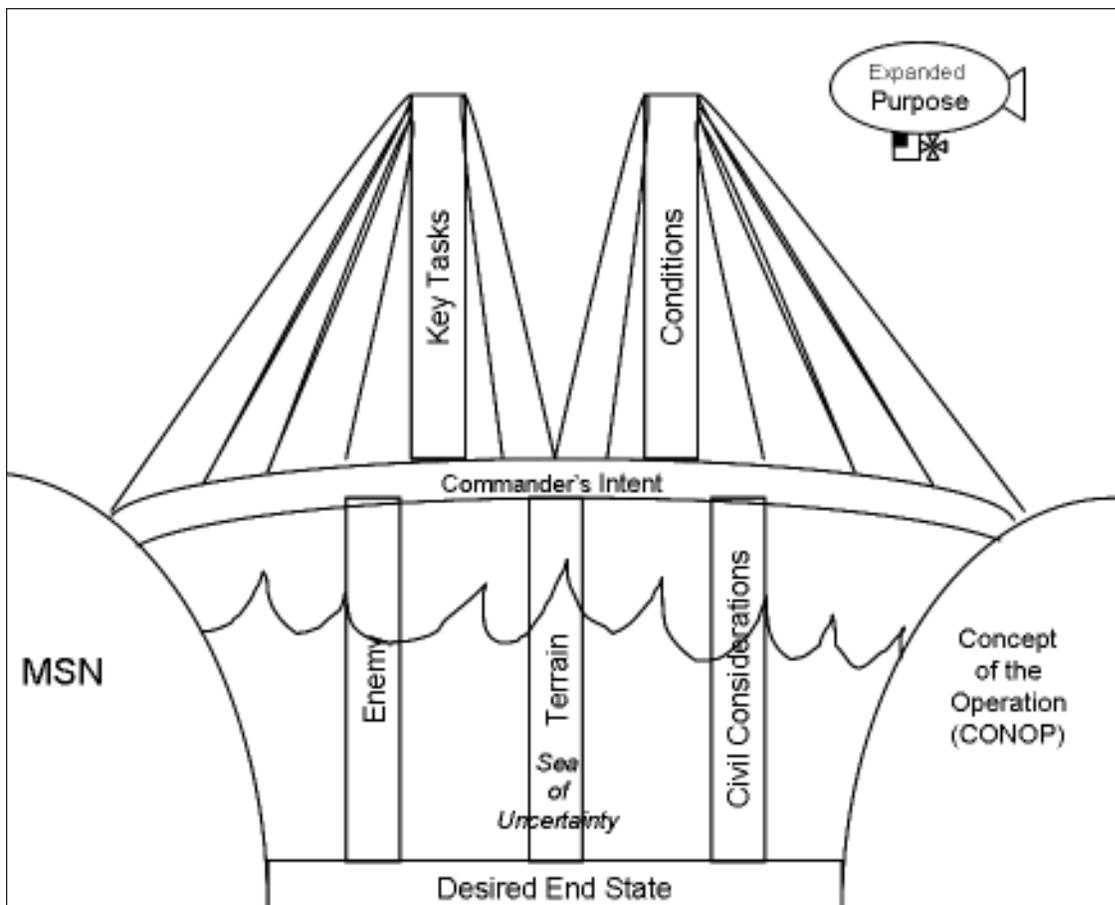


Figure 1

desired end state. This doesn't alter our definition, and it facilitates understanding. The challenge is to provide these to our subordinates for EVERY mission.

In a recent episode of "Celebrity Apprentice," Donald Trump told a group of contestants that he liked people who exercised initiative and who didn't wait to be told what to do. At no point during the project, did the project leader ever explain her intent, either formally or informally. If initiative is exercised in this environment, effort is unfocused, resources can be misplaced, and results can be far different than what was expected. In this particular case, half the team contributed little if anything at all to the project completion because they were unsure what to do, tension rose within the team due to perceived lack of effort, and they lost their challenge by providing an inferior product to their customer. Although the personalities on this particular team may have difficulty working together, the only casualty from this

lack of communicating intent is financial loss. In our profession of arms, the risks are much greater.

For 234 years, our greatest strength as an Army has been the ability of our subordinates to take the initiative and make decisions in the absence of their commanders or in the absence of further orders. This is because they understood their purpose, and what success looked like at the end of their mission. Regardless of the complexity of the contemporary operating environment, the role of the commander is to simplify the environment, and explain how to achieve our purpose when our dynamic situation changes. Commander's intent is not a bridge too far; it is our bridge over troubled waters.

At the time this article was written, MAJ Michael Mulherin was assigned as a small group leader with the Combined Arms and Tactics Directorate, U.S. Army Infantry School, Fort Benning, Ga.

Did you know current and past issues of *Infantry Magazine* are online? Visit <https://www.benning.army.mil/magazine>.