

Fires TTP to Defeat the COE OPFOR

By Major W. Wayne Ingalls, MI

In a short time, the term “contemporary operational environment” (COE) has become a buzzword that many misunderstand. The COE is the environment in which the new opposing force (OPFOR) operates. Fortunately, the FM 7-100 series of manuals that explains the COE and the OPFOR fighting in that environment have been signed and should be distributed to the field sometime during the 2d Quarter of FY03. (See the figure.)

So what is the COE? Instead of referring to the book definition in FM 7-100, one can look out the window or turn on the news. The world we live in is the COE, and we hear and read about real-world threats daily. The mission of the OPFORs at the Combat Training Centers (CTCs) is to emulate these real-world threats: be a plausible, flexible force using a composite of actual worldwide forces. The concept of the COE extends into the year 2020.

COE OPFOR. The COE OPFOR is nonlinear and doesn’t adhere to a template. He no longer focuses on destroying friendly maneuver forces by overwhelming them with a mass of echeloned formations or attacking from the march with a rigid timeline.

This OPFOR is more dispersed—does not need to mass his artillery to produce mass effects. Commanders and their staffs cannot afford to be fixated on old ideas, such as OPFOR “phases of fire” and the “advanced guard” formation.

As far as equipment is concerned, the COE OPFOR can use any piece of equipment that is either fielded in at least one country or available for export. The COE OPFOR can use equipment that is not yet fielded if it is available on the world export market.

However, there is a caveat. The OPFOR’s force structure and equipment must reflect the type of enemy the training unit would face to accomplish its assigned mission. The CTCs maintain the philosophy “Train as you will fight.”

Because the training unit’s mission drives the CTC scenario and the OPFOR’s

equipment, units must identify training objectives for each exercise or rotation early. The OPFOR will alter its force package, as required, to present a sparring partner for the friendly force’s tough, realistic training.

The COE OPFOR’s equipment is likely to be better than any single potential threat nation in the world because the OPFOR can use equipment that is not yet fielded. And given that the COE projects out to 2020, it compels units to train for the next war.

The COE OPFOR’s perspective is new on the CTC battlefields and motivates much of what he does. The OPFOR studies history and sees the US as a very strong opponent but one who can’t take casualties. This is based on American experiences in Somalia and Vietnam.

According to the OPFOR perspective, America wants a casualty-free fix for long-term problems followed by a rapid redeployment of forces. The OPFOR is in his home region and will fight for the long term. Therefore, the OPFOR wants to inflict casualties then flee to fight another day. As US casualties build, America will lose interest in the region.

- *FM 7-100 OPFOR Doctrinal Framework and Strategy*
- *FM 7-100.1 OPFOR Operations*
- *FM 7-100.2 OPFOR Tactics*
- *FM 7-100.3 OPFOR Paramilitary and Nonmilitary Organizations and Tactics*

The field manual series 7-100 (final drafts) discuss the contemporary operational environment (COE) and the opposing force (OPFOR) fighting in that environment. Readers can request access of the manuals online at the Reimer Digital Library at <http://www.leavenworth.army.mil/threats/index/>.



This leads to another essential tenet of the COE OPFOR: information warfare. Because America is seen as casualty-averse, one major reason for inflicting casualties on US forces is to publicize the event and cause a change in policy (withdrawal from the region). Casualties for US troops in Afghanistan have been exceptionally light, but it may have been a far different media story were it not for the Northern Alliance’s fighting the Taliban and al Qaeda and absorbing most of the casualties.

In a similar fashion, reports of civilian casualties may influence US policy and, therefore, are the premise of some OPFOR tactics, techniques and procedures (TTPs)—such as positioning combat systems and forces in urban and protected areas. Some media estimates claim that US and anti-Taliban fighters caused as many as 3,600 civilian casualties to date in Afghanistan.¹

The new FM 7-100-based OPFOR was in effect at one CTC before the final edition of the doctrinal manuals was signed. In Battle Command Training Program (BCTP) Warfighter exercises, the COE OPFOR has fought nearly a dozen divisions and corps. The Combat Maneuver Training Center (CMTC) in Hohenfels, Germany, formally adopted COE-based scenarios in April 2002, and the National Training Center (NTC) at Fort Irwin, California, did so in May 2002. Both these “dirt” CTCs had conducted several COE-transition rotations before formal implementation.

The Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, long has been the most COE-like of the CTCs. In fact, the JRTC assessed that its battlefield already represented 80 percent of the variables described in the COE.²

Essentially, the COE at the JRTC will increase the emphasis on information operations, criminal elements on the battlefield and an improved OPFOR force structure that has more anti-tank and air defense systems and more modern equipment. The JRTC is conducting COE-transition rotations with the new doctrine implemented for the Stryker Brigade Combat Team rotation in March.

The OPFOR's equipment and tactics at the CTCs have changed to reflect the COE.

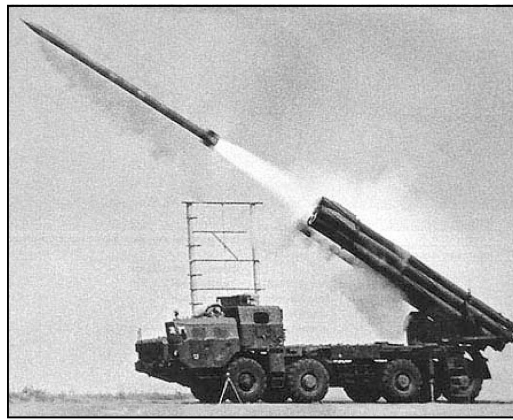
OPFOR Equipment. In many ways, the availability of technologically advanced equipment is just a part of the environment. This equipment is listed in the OPFOR Worldwide Equipment Guide (WEG) online at the Training and Doctrine Command (TRADOC) Threat Support Directorate's website: <http://leav-www.army.mil/threats/products/Products.htm>. Essentially, the guide is a catalog from which the OPFOR can "buy" the equipment it needs for the specific training mission.

The following are sample pieces of equipment from the catalog available to the BCTP OPFOR and, if noted, available to the dirt CTC OPFORs.

9A52-2 Smerch. This is a 300-mm multiple rocket launcher (MRL) with a 90-kilometer range. Fragmentary high-explosive (HE) munitions, dual-purpose improved conventional munitions (DPICM) and sensor-fuzed warheads fit on an inertially course-corrected rocket with time-fuze adjustment. These provide greatly improved accuracy with an error of 0.019 percent of the range (171 meters at 90 kilometers). In addition to the BCTP, the OPFORs at the NTC and CMTC use these long shooters.

T-90 Tank. This main battle tank has the *TShU-1-7 Shtora-1* optronic countermeasures system designed to disrupt the laser target designation and rangefinders of incoming anti-tank guided missiles (ATGMs). The T-90 also has a laser-warning package that tells the tank crew when it is being lased. *Shtora-1* is an electro-optical jammer that jams the enemy's semiautomatic command to line-of-sight (SACLOS) ATGMs, laser rangefinders and target designators. At this point, only the BCTP OPFOR has used the T-90s, but there have been discussions about upgrading the dirt CTCs OPFOR tank fleets to T-90s.

IL-220U Artillery-Locating Radar. This Ukrainian-made phased-array ra-



9A52-2 Smerch

dar can detect Army tactical missile system (ATACMS) launches at 55 kilometers, multiple-launch rocket system (MLRS) launches at up to 40 kilometers, tube artillery firing at up to 20 kilometers and mortars at up to 30 kilometers. In addition to BCTP, the capabilities of this system will be replicated at the CMTC and the NTC, giving the OPFORs target acquisition capabilities comparable to our Q-37 Firefinder.

BL-904 Artillery-Locating Radar. This Chinese-made radar has not completed fielding, even in the Peoples Republic of China, but it is available for export. Therefore, the OPFOR can use it. The radar essentially is the Chinese equivalent of our Q-36 Firefinder that can detect MLRS firing at approximately 30 kilometers.

G-6 Rhino Howitzer. This is a South African self-propelled (wheeled) 155-mm howitzer with a range of up to 39 kilometers (base bleed). Only the BCTP OPFOR has used this system; however, the dirt CTCs are using other long-range tube systems.

Unmanned Aerial Vehicles (UAVs). A variety of UAVs are available, either with a pre-programmed flight path allowing approximately 150 kilometers of reconnaissance depth or a true remotely piloted vehicle (RPV) with an approximate reconnaissance depth of 50 kilometers. In the near future, the OPFOR at the dirt CTCs will have access to simulated UAVs.

According to *FM 100-12 Army Theater Missile Defense Operations* published in March 2000, "Threat experts project more than 50 UAV developer countries and 75 UAV user countries by 2005." Some of these countries include Russia, China, France, South Africa, Iraq and Iran.

SA-18 Grouse. This is a Russian-made man-portable air defense system

(MANPADS) that intelligence analysts at the TRADOC Deputy Chief of Staff for Intelligence (DCSINT) have assessed to be about 90 percent as effective as a Stinger.³ Overall, there is an increased number of MANPADS that are more lethal. All the CTCs use this system.

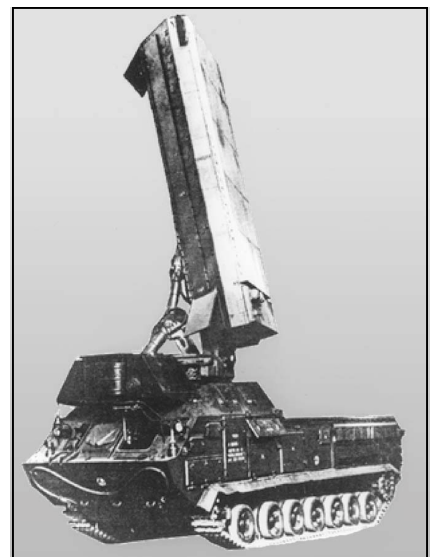
OPFOR Surrogate Vehicle (OSV). A product upgrade for the BMPs used at the NTC and CMTC, the OSV has a Bradley turret on a VISMOD M113 chassis. It has a 30-mm cannon and fires the AT-5 ATGM. OSVs can carry five AT-5 missiles and engage armored targets at a range of 4,000 meters.

Expendable Battery-Powered Global Positioning System (GPS) Jammers. These deny forces the use of GPS. The GPS jammers' range is approximately 400 to 1,000 square meters, depending on battery life. The CMTC probably will use this system.

Expendable Battery-Powered Radio-Frequency Jammers. These deny forces the use of a particular frequency range. The radio frequency jammers' range is approximately 400 to 1,000 square meters, depending on battery life. The CMTC probably will use this system.

Another significant change to OPFOR equipment is the doubling or tripling of the quantity of anti-tank systems in the force with an emphasis on infantry as the primary tank killers. Also, the OPFOR reconnaissance units will have hand-held thermal viewers with a range of 2.5 kilometers.

COE OPFOR Tactics. One of the innovations the FM 7-100 series discusses is an offensive mission called a



IL-220U Artillery-Locating Radar



OPFOR Surrogate Vehicle (OSV)

“Strike.” This mission is “an attack designed to destroy a key enemy organization through a synergistic combination of precision fires and ground maneuver in a small span of time.”

The effects of a successful Strike are more than just the loss of a number of combat systems. Rather, defeat comes through the paralysis that occurs when a key organization is completely devastated in a small span of time.

The OPFOR has brigade tactical groups (BTGs) and division tactical groups (DTGs). The DTG is essentially a task-organized division-level unit. The OPFOR’s operational-strategic command (OSC) is a corps- or army-level organization. Both the DTG and OSC can execute Strikes. (Strikes are beyond the capability of a BTG without augmentation.)

Command and control for a Strike is provided by an integrated fires command (IFC). The IFC commander is roughly equivalent to the old chief of rocket troops and artillery. Interestingly, one of the command and control options available to the DTG or OSC commander is to place the IFC commander in charge of both fires and *maneuver* elements involved in a Strike.

As in all OPFOR offensive missions, there is a fixing force, an assault force and an exploitation force for the Strike.

Fixing Force. In a Strike, this force focuses primarily on fixing enemy forces that might come to the aid of the target formation. Maneuver forces, precision fires, situational obstacles, chemical weapons and electronic warfare (EW) are well-suited to fix forces.

Assault Force. The assault force in a Strike creates the conditions that allow the exploitation force to complete the destruction of the target formation. One way the OPFOR does this is by using reconnaissance fires. This is the integration of reconnaissance, intelligence, surveillance and target acquisition (RISTA) assets with fire control and weapon systems into a closed-loop, automated fires system that detects, identifies and destroys critical targets in

minutes. The assets designated for reconnaissance fires are under the centralized control of the IFC commander.

Reconnaissance fires enable the OPFOR to deliver rotary-wing air, surface-to-surface missiles (SSM), cruise missiles and artillery fires (including precision munitions) on enemy targets very rapidly. The likely targets for reconnaissance fires are RISTA assets or anything that can detect or prevent a successful Strike. In addition, reconnaissance fires may target assets that speed recovery after a Strike, such as logistical and casualty evacuation assets.

Exploitation Force. The exploitation force in a Strike completes the destruction of the target formation and most often will consist of highly lethal ground maneuver formations and precision long-range fires systems. Armored or attack aviation units are ideally suited to be the core of the exploitation force, but a Strike may be successfully executed without maneuver forces. The exploitation force may be comprised entirely of long-range fire systems.

OPFOR TTPs. Here are six TTPs the OPFOR uses.

Long Shooters Employed at Near-Maximum Range. The Smerch with its 90-kilometer range and other OPFOR systems have a significant range advantage over our MLRS, even when MLRS is using extended-range rockets (ER-MLRS). For most of the fight, the bulk of the OPFOR artillery assets fire from well outside of standoff range, thus limiting their risk to counterfire. The shorter-range systems join the fray only when engaging important targets, such as those in an OPFOR Strike mission.

Displacement Time versus ATACMS Approval Time. While the OPFOR long shooters may be outside of ER-MLRS range, they are not out of ATACMS range. However, most OPFOR systems can displace in under three minutes, far shorter than the time it takes to get approval to launch an expensive ATACMS.

Dispersion. While the concept of dispersion is certainly not new to the OPFOR, he now has an improved capability to mass fires without massing systems. Training units should not expect to see large artillery concentrations in the form of army group rocket artillery (AGRA), army artillery groups (AAGs), division artillery groups (DAGs) or regimental artillery groups (RAGs)—they are artillery formations of past OPFORs. At all the CTCs, the COE OPFOR often fights with only one

to three systems at any location on the battlefield.

Position Systems in Urban/Protected Sites. This is nothing more than a variant of the famous Iraqi “human shield” tactic. The OPFOR can fire at friendly forces and then take advantage of the time it takes for friendlies to get approval to fire into an urban or protected area. If the OPFOR has moved, friendly counterfire could cause collateral damage, perhaps casualties, and result in negative media coverage—which may be the OPFOR’s originally intended results. Even if friendly forces destroy the OPFOR weapon, the damage done in terms of international public relations could outweigh the tactical advantage of taking out the system.

Streamline Sensor-to-Shooter Links. To get more responsive fires, the OPFOR has cut out layers of bureaucracy in its shooting system. The OPFOR usually does not have the same concern for preserving human life that US forces do, so he won’t care about collateral damage or whether or not the soldier calling in the mission has “eyes on” the target.

In many cases, the OPFOR sensor will talk directly to the shooter. This is particularly true when the sensor has a laser target designator and the OPFOR is employing a lone Krasnopol-capable system. (For information about the Soviet-made Krasnopol, see the article “Krasnopol: A Laser-Guided Projectile” by Walter L. Williams and Michael D. Holthus in the September-October 2002 edition.)

Friendly Force TTPs. Here is a summary of some of the TTPs that friendly forces have used successfully against the COE OPFOR.

Countering the OPFOR Range Advantage. This is not an entirely new problem as the OPFOR has used such systems as the Chinese WM-80 with an 80-kilometer range for years. The COE OPFOR’s emphasis on extreme dispersion, however, does add to the complexity of the problem. Here are some TTPs units can use to counter the OPFOR’s ability to fire beyond the range of MLRS rockets.

- First units detect the long-shooters. This, in itself, is problematic. The most common method in Warfighter exercises is to detect long-range systems, such as the WM-80 and the Smerch, using a Q-37 radar with a long-range tape that gives a probability of detection beyond the standard range of 50

kilometers. But this Version 10 radar software is not fully tested and, as such, has not been fielded.

Then units determine if the system is on the high-payoff target list (HPTL) by checking the attack guidance matrix (AGM) and, if it is, use the target selection standards (TSS) to engage the target. The AGM pre-approves engaging the target with ATACMS; thereby, units avoid the time-consuming approval process.

- A second method for engaging HPTs beyond ER-MLRS is by using the Q-37 long-range tape to detect the target and then cueing intelligence assets to track the target. Joint surveillance and target attack radar system (JSTARS) tracks the movement of the asset, and then a UAV (dynamically re-tasked from a nearby location) stays on the target until ATACMS, fixed-wing aircraft or attack helicopters can engage it.

- A third technique for engaging these types of targets is to destroy them via a raid. Systems such as the WM-80 and the Smerch have a long minimum range and cannot engage targets inside that range. Artillery and (or) infantry can be transported to inside the minimum range of the OPFOR targeted system to destroy it in an artillery raid, a combination of indirect and direct fires or by direct fires alone.

Targets in Restrictive-Fire Areas (RFAs). This is not a new problem either as various threats, such as North Vietnam and Kosovo, have hidden behind their populace. There are essentially two basic TTPs to use in these situations.

- Units make the judge advocate general (JAG) officer part of the targeting team. As an example, the targeting team in a maneuver brigade typically consists of the brigade executive officer, brigade S3 (or battle captain), brigade S2 and brigade fire support officer (FSO). To minimize collateral damage, the JAG officer attends all targeting meetings as the expert on the rules of engagement (ROE). When a target is located inside an RFA, he advises the commander as to whether or not the

commander should engage it with indirect fires. Timely and appropriate legal analyses as to whether or not targets in urban or protected areas can be engaged under the ROE are critical for military operations in the COE.

- This TTP is based on mission, enemy, terrain, troops, time and civil considerations (METT-TC). To minimize collateral damage against targets located in RFAs, units engage these targets with direct fires vice indirect fires. Units send highly mobile infantry and human intelligence (HUMINT) teams into the RFAs to engage and destroy the targets. This requires the infantry and HUMINT to be ready with little notice to increase the probability of finding and destroying such targets.

UAVs can be helpful but only if the OPFOR target is easily distinguishable from the population. For example, a Smerch can't easily blend into the population in contrast to a dismounted mortar squad.

The Reconnaissance/Counterreconnaissance Fight. Again, this is not a new problem, but it is more difficult now with the fielding of the OPFOR OSV and hand-held thermal sights. Studies have shown for years that units that win the reconnaissance/counterreconnaissance fight at the CTCs tend to win battles. Despite the advent of OPFOR UAVs, ground reconnaissance remains the OPFOR's primary means of gathering intelligence.

Here is what the Center For Army Lessons Learned (CALL) says: "Ground reconnaissance is the key to the OPFOR situational awareness. They will invest up to a battalion for aggressive reconnaissance. Ensure you have an equally aggressive counter-reconnaissance plan....Deny the enemy his eyes and you are on your way to victory."⁴

The only way to deny the OPFOR his ground reconnaissance eyes is to kill his scouts and keep killing them—the OPFOR always will replace dead scouts. Units must plan to win this fight by resourcing the victory. This means using lots of artillery—our scouts can't kill an OPFOR scout in a BMP or even

a BRDM with direct fire. This also means that "first string" personnel must be alert and fight this fight continually, even during the "fuzz factor" time from about 0100 to 0300.

Conclusion. Fort Sill is incorporating COE OPFOR instruction into several courses. The Pre-Command Course, Captain's Career Course, Officer Basic Course and Warrant Officer Advanced and Basic Courses all have instruction on the COE OPFOR doctrine, tactics and equipment. However, the instruction is only an overview, so graduates will need additional training in units.

The National Simulation Center at Fort Leavenworth, Kansas, will field a Caspian Sea scenario that incorporates the COE, probably in the summer of 2003. Once installation simulation centers have this scenario, the COE OPFOR will become a reality in Janus training.

With the incorporation of the COE OPFORs at the CTCs and into other training methods, US Army training becomes more realistic and relevant. As FA units fight this OPFOR during training and continue to face COE threats around the world, they will refine fire support TTPs and devise new ones to defeat the COE enemy.



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Endnotes:

1. "After the Taliban: Facts and Figures" by *The Guardian*, United Kingdom, 1 November 2002. This document is online at <http://www.guardian.co.uk/afghanistan/story/0,1284,805570,00.html>.
2. Tony Pietrantonio, Intelligence Planner in the Plans and Exercise Maneuver Control Group at the Joint Readiness Training Center (JRTC), Fort Polk, Louisiana, presented "The Contemporary Operational Environment: Assessment and Implementation Time Line" PowerPoint briefing at the JRTC in June of 2002.

3. Author's note taken during the "COE Replication Requirements (COE OPFOR)" by Lieutenant Colonel Jon Cleaves of the Training and Doctrine Command (TRADOC) Deputy Chief of Staff for Intelligence (DCSINT) during the 7th Annual Worldwide OPFOR Conference at Aberdeen Proving Ground, Maryland, in April 2002.
4. "How to Fight at the Combat Training Centers (CTCs): The Contemporary Operational Environment (COE) Handbook," Handbook 02-xx, Version 1 (Fort Leavenworth, Kansas: Center for Army Lessons Learned). This CALL handbook is online at <http://call.army.mil/products/ctc/coe-handbook/coe-toc.htm>.