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A User's Guide

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Situation

The Marine Corps recognizes that force-on-force exercises are the most effective methods to evaluate the proficiency of units for combat; however, these events are rarely true free play, following pre-determined scripts or having victory assigned randomly by unit commanders. Additionally, few sergeant squad leaders or platoon commanders know how to set-up, execute, and debrief their own free play force-on-force exercises.

Consider your own experiences with force-on-force exercises. Most of us have participated in the force-on-force battle at ITX's Range 220 in Twentynine Palms, California. Due to a lack of controllers to observe each fire team or squad at all times, it becomes a struggle to assign accurate paints and casualties to small units. Consequently, Marines feel like pawns on a giant chessboard, where the big blue arrows of the company or battalion operations are of more importance than actions taken at the small unit level.

Or maybe you've participated in "free play" force-on-force training with your platoon or squad at your home station, running around training areas shouting "Bang! Bang!" at each other and receiving little to no feedback on the effects of your fires or maneuver. More often than not, the leader always declares the larger, task organized squad the victor, as opposed to the smaller, hastily organized Opposition Force (OPFOR); even if the OPFOR fought more creatively or aggressively than the friendly unit being evaluated.

Lastly, perhaps you're a recent graduate of Infantry Small Unit Leaders Course or Infantry Officers Course and have experienced effective, free play force-on-force training at your respective schoolhouse. You want to bring this type of training to your unit and provide them the same learning and decision-making opportunities that you did, but you do not have the same resources, staffing or experience as your school to build these training events. You may not even know where on the Internet or in which publications to begin setting up your own free play training.

Free play force-on-force exercises need not be frustrating, boring events for you and your Marines. On the contrary, they can be the most productive, challenging, and fun training for your units, with very few requirements of equipment and support. Your Marines will be challenged to conduct combat decision-making, to lead and to communicate with their subordinates, and be tested on their knowledge of tactics, techniques, and procedures.2 Furthermore, the emphasis on a free play environment, with no pre-determined victors or "battle script," will allow your Marines to compete fairly against one another and adds a level of competition to the event. Finally, if executed correctly, free play force-on-force exercises are the closest thing to actual combat that a small unit can simulate on its own, thereby preparing your squad/platoon for successes on future battlefields.

Purpose

The purpose of this handbook is to provide guidance and assistance to small unit leaders in planning and executing their own free play force-on-force exercises and wargames, with minimal support from higher command.

The article is divided into the following sections:

- Principles of Free Play/Force-on-force Training
- Definition of Paints
- Force-on-force Billet Descriptions
- Gear/Support Required
- Set-up
- Execution
- Consolidation
- Common Questions/Problems

This handbook provides a standardized, easy-to-implement, and flexible guide for a small unit to set up, execute, and pull valuable lessons learned from their own free play force-on-force training. Feel free to modify or expand upon any of the material presented in this paper; if Marines are able to benefit from (notionally) shooting, moving and communicating against a capable, thinking enemy force in order to assess their tactics, techniques and procedures in a simulated combat environment, the author's intent has been met.

(A quick note: when Free play is referred to in this article, it means training where there is no predetermined outcome or "school solution;" units will succeed or fail based only on the decisions that they make or fail to make. Force-on-force means training where Marines simulate shooting, moving, and communicating against an opposing unit similarly intent on winning the battle in a field environment.)

Principles for Free Play/Force-on-force Training

Setting up and controlling (also known as refereeing, white celling, etc.) your own squad or platoon level free play force-on-force exercise is not difficult, but there are four principles that you need to adhere to when conducting this training.

PRINCIPLE #1: DO NOT EVALUATE THE UNIT LEADER. EVALUATE THE UNIT.

-The proficiency of the unit leader should be based upon whether he can accomplish the assigned mission—period. Therefore, you don't need to assign a controller to solely follow a squad/platoon leader; have a controller assigned to entire teams or squads.

PRINCIPLE #2: YOU NEED A CONTROLLER FOR EACH SUB-UNIT YOU WANT EVALUATED.

-If a sub-unit doesn't have a controller directly assigned to them, they will not receive valid paints or casualties. Consequently, if you assign a single controller to evaluate an entire squad, each fire team will not receive its own thorough, tailored debrief, nor always expected to receive accurate paints/casualties.

PRINCIPLE #3: THE MORE UNITS YOU EVALUATE, THE MORE DIFFICULT IT IS TO BATTLE TRACK AND MANAGE COMMUNICATION ARCHITECTURE.

-If you conduct a platoon-on-platoon battle, and have a controller for every fire team in each platoon, this will result in 18 controllers.....each with their own radio (this doesn't count any additional controllers for overall battle tracking or coordination.) Obviously, the paints will become chaotic as controllers begin stepping on each other over the radio; strive to have a number of controllers that will provide accurate paints for the exercise but is not impossible to control. This may necessitate tailoring what size units will be properly trained and evaluated (refer to Principle #2).

PRINCIPLE #4: DO NOT FORCE THE UNITS TO ADHERE TO A SPECIFIC SCRIPT; GIVE EACH OPPOSING FORCE A MISSION, AND LET IT PLAY OUT TO COMPLETION.

-In the spirit of maneuver warfare, provide mission-type orders to each unit, allow them to develop their own plans, and then allow each force to fight the engagement to its conclusion. Enable as much "free-play" in the training as possible; if you force a unit to stick to a prescribed scenario or end state, you will be LARPing, and not force-on-force training.

Definition of Paints

The description of enemy and friendly weapon systems and their effects by the controllers are known as "paints;" as in, the controllers are trying to "paint" the scenario for the Marines in order that they make simulated combat decisions in the absence of live fire and actual casualties. Paints need to be clear and specific so that Marines can quickly make a decision from the image being described to them. Consequently, it is recommended that controllers use the following "paint" descriptions, based off the ones utilized by TTECG in 29 Palms:

NO FIRE: The unit is not receiving any small arms or indirect fires and is free to maneuver or engage enemy units of opportunity without interference.

SPORADIC FIRE: The unit is receiving un-aimed or erratic small arms or indirect fire in vicinity of their position. Unit is still free to maneuver or engage units of opportunity; however, it is expected that the Marines will utilize the necessary cover and concealment so to not needlessly expose themselves to these erratic "fires."

EFFECTIVE FIRE: The unit is receiving well-aimed, deliberate small arm or indirect fire from an enemy unit. Unit is able to maneuver and engage the enemy unit shooting at it only if it is able to generate its own internal suppressing fire (or have an adjacent unit suppress the enemy). This will require the targeted unit to fire and move or quickly bound from covered positions in order to not receive a casualty from the enemy weapons.

HEAVY EFFECTIVE FIRE: The unit is receiving well-aimed, overwhelming, intense small arm or indirect fires from an enemy unit. Unit is NOT able to maneuver or effectively engage the enemy unit shooting at it unless another friendly unit provides its own base of suppressive fire in order to lift the heavy fire. This is usually the result of a unit pinned down by a superior enemy force or automatic weapons positions.

Utilizing these paints drives Marines to not only respond quickly to perceived combat conditions but also look to communicate and support sister units so that they will not be pinned down by simulated enemy fire. It is recommended that your controllers review these definitions and know when to apply them accordingly before the start of the force-on-force training.

Finally, as your controllers become more comfortable utilizing these definitions to describe the battlefield conditions to their units, they can become more creative in the additional effects they paint. For example, suppose there is a "friendly" fire team that correctly conducts a rocket battle drill against an "enemy" machine gun team, and both teams' controllers have agreed that the machine gun would be knocked out. Rather than simply having the friendly "controller" tell his fire team: "Hit. You knocked out the machine gun, receiving no fire," he can instead describe the following scene: "Your rocket just slammed into the ground directly in front of the machine gun, and you see the barrel go flying into the air! You're taking no fire right now, and don't see any movement where the gun was."

"Painting" the scenario in this manner will not only result in more realism and excitement for your Marines, but also drive them to make decisions on their own based off the conditions you are describing to them.

Force-on-force Billet Descriptions

There are three key billets needed to organize and execute your own free play force-on-force training.

CONTROLLER: individual whose main purpose is to accompany a unit throughout a force-onforce exercise, assigning paints and casualties to his assigned Marines. It is recommended that a controller is at least a corporal, equipped with a PRC-153 radio or cell phone.

As the controller accompanies his unit, he should take effort to conceal himself as required and not expose his unit's position to the opposition force, due to standing out in the open or utilizing poor fieldcraft. Finally, the controller should be taking note of the positive and negative actions of his unit and be able to provide a detailed debrief at the end of the exercise.

LEAD CONTROLLER: individual who is responsible for battle tracking all participating units and resolving any disputes in paints or casualties between controllers. It is recommended that the lead controller be a senior sergeant squad leader or staff sergeant platoon sergeant, who can utilize his military experience and knowledge to intelligently resolve conflicting paints.

The lead controller should place himself in a central location to be able to observe the entire training event, and then move freely to different points of friction that will arise; he should also be equipped with a PRC-153 radio or cell phone that can communicate with all controllers. Furthermore, the lead controller should also be monitoring the overall progress of the force-onf-orce exercise and ensuring that the controllers interfere as little as possible in the decisionmaking and actions of the participating units.

Finally, at the conclusion of the force-on-force exercise, the lead controller should lead the debrief of both the "friendly" and "enemy" forces and be able to describe the overall course of the engagement so a complete picture of the battle is depicted.

EVALUATOR: individual who moves throughout the force-on-force training, taking note of overall positive and negative trends in the participating units' tactics, techniques, and procedures. The evaluator should be the platoon or company commander; he does not require a radio or cell phone, allowing him to focus solely on the action and not on the transmissions of the controllers.

The evaluator's most important role is at the end of the exercise, when he should consolidate all controllers and compare his observations to theirs, compiling the major debrief points for the entire unit. The evaluator can also provide the missions to both the "friendly" and "enemy" units prior to the exercise and will determine whether each of those missions was accomplished.

Gear and Support Required

Required

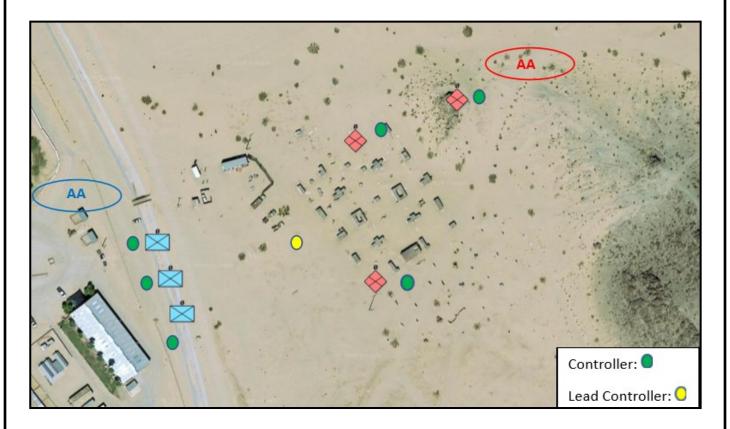
- -T/O weapons (can be substituted with rubber ducky M16s/AK-47s, etc.)
- -PRC-153 radios or cell phones for every controller
- -Training area (can be a MOUT town, wooded area, hills, or even an open field or desert)
- -Personal Protective Equipment

Optional

- -Maps/Imagery
- -Portable Speakers
- -PRC-152 radios to allow training units to communicate for CASEVACs, SITREPs, etc.

Initial Set-Up

For the purpose of this guide, we will use a force-on-force exercise where two rifle squads are pitted against each other in an urban environment.



- 1. Begin the set up by establishing an assembly area (AA) for each squad to conduct planning and PCCs/PCIs. Blue squad is dressed in woodland cammies, while red squad is in deserts.
- 2. The platoon commander (evaluator) assigns a fragmentary order to each of the squads; blue squad will have an hour to seize the town, while red squad is required to only retain three buildings within the town. Each squad leader is given time to develop their order and brief their subordinates.
- 3. During this time, the platoon sergeant (lead controller) assembles all of the controllers and conducts a communications rehearsal, with all controllers ensuring that their PRC153 radios work, that they understand the paints that will be utilized during the exercise, and the expectations of the lead controller.
- 4. The controllers then return to their squads and listen to the order; this will ensure that the controllers have a general idea of where their units will be moving to and can anticipate paints/casualties accordingly. The evaluator and lead controller are also encouraged to listen in on the orders to anticipate some of the decisions that the unit leaders will make during the exercise.
- 5. The platoon commander wants to evaluate the proficiency of his fire teams, as well as the entire squad, so three controllers are assigned to each squad: one controller for each fire team. The lead controller positions himself in the center of the training area.
- 6. Once the orders are complete, red squad is given an additional 10 minutes to move into their positions, while the blue team can conduct a quick leaders recon of the training area.
- 7. Once all controllers confirm their units are ready, the lead controller announces that the exercise can begin.

Execution

Communication between the controllers is critical to ensure that paints and casualties are clearly and quickly assigned. Utilizing a simple "Call for Fire" format helps to standardize what each controller's fire team/squad observes and the actions they are about to take. String several of these transmissions together and a group of controllers can effectively manage the flow of the engagement, with realistic effects being generated. Below is a format that can be used to standardize communications between controllers:

Sample "Call for Fire" format for force-on-force controllers:	
"Observer 2 this is Observer 1, my (unit) located at (position 1) observes at (position 2)."	
"My unit is going to engage with weapons systems."	
"Recommend assigningcasualties/effects."	

This format is simple and can be utilized for any weapon system and any size unit. By alerting the opposing teams' controllers of actions about to be taken by your unit, you can ensure that paints and casualties are assigned near instantaneously and that confusion over weapon effects are mitigated beforehand. This improves the realism of the exercise and keeps Marines focused on the tactical problem and "in scenario."

Below is an example of how an engagement can be conducted with controllers facilitating the realism of the event:

As the exercise begins, the blue fire teams begin approaching the town from the southeast. One of the red rifle teams observes the blue force out in the open and he prepares to "fire" upon it. The red fire team's controller begins transmitting the following to the blue fire team controllers:

Red Controller: "Blue this is Red 3. My fire team in the SE corner of town can observe your southernmost unit in the open. They are going to engage them with their M4s and M203s. Recommend assigning at least one casualty due to a lack of cover."

Blue Controller: Red 3 this is Blue 3. Roger, those are my guys. Once Red starts shooting, I'm going to paint them with heavy, effective fire. I'm also going to assign one KIA."

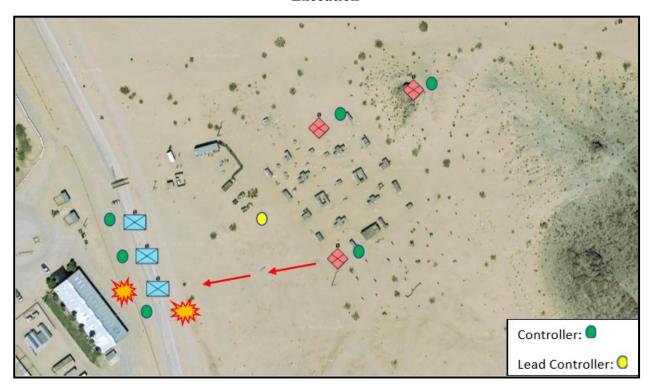
Red Controller: "Roger, standby"

Red fire team begins screaming their shots out: "1! 2! 3! 203 out!"

Blue Controller (screaming to his fire team): "YOU ARE PINNED DOWN WITH HEAVY EFFECTIVE FIRE! PFC Martinez, you are KIA. Lie down and don't move."

<u>Red Controller</u> (to his fire team): "Nice shooting. You see 203 rounds exploding and a Marine topple over. You're starting to receive some random shots back at your position, though."

Execution



The scenario described above will inevitably become more chaotic as both squads begin to close on each other and communication between the controllers becomes more rapid. This is fine. If the controllers are constantly communicating to one another the pending actions of their respective fire teams, confusion over paints/casualties will be kept to a manageable level. If the radio transmissions become too disjointed or confusing though, the lead controller should quickly intervene to provide an overall situation update of paints and casualties, and *then allow the training to continue unimpeded*. Below is an example of the lead controller intervening as a scenario becomes too chaotic for the controllers to manage on their own:

BREAK BREAK. All controllers, this is lead controller, be advised at this time Red has 1 WIA and 2 KIA. Blue has 3 WIA and 2 KIA. All Blue units are currently under effective fire from the south side of town. All Red units are under sporadic from the west side of town. Out.

Now that you have the architecture and personnel in place to facilitate force on force training, how in-depth you want the training to be is totally up to you.

The simplest way to execute this training is to have each unit fire and maneuver on each other until one unit accomplishes its mission or destroys the opposing force. Other ideas to enhance the training include:

- -Providing machine guns, mortars, or QRF to participating units and allowing unit leaders to call in notional supporting arms on radios.
- -Planting IEDs (should have a visual signature, so Marines can practice detection).
- -Having Marines act as civilians or detainees.
- -Providing the option to retreat and escape from the "battlefield."
- -Utilizing portable speakers to simulate machine gun or rifle fire. Simply hook up a phone to the speaker and play a YouTube video of machine gun fire when a Marine "fires" his weapon system.
- -Having an inferior sized force attack a larger force in the defense.

Execution: Consolidation

The force-on-force training should be concluded once one of the opposing units has accomplished its assigned mission. From there, the platoon commander and platoon sergeant should bring the entire unit together and conduct a thorough exercise debrief. *The exercise debrief/After Action Review (AAR) is the most important event of the entire evolution,* as this is where Marines will pull "lessons learned" from the review of the actions that they took and failed to take.

While there are several different methods to conduct the AAR and discuss the lessons learned, it is recommended that the debrief be conducted in a series of "critiques", focusing on WHY decisions were made by Marines, as opposed to WHAT decisions were made by Marines. From there, alternate courses of action are examined by both the Marines and the controllers, and the participating units are exposed to new patterns of decision making and tactical considerations.

For example, if a fire team leader walked his fire team into an ambush, rather than the evaluator simply stating "Corporal Smith proceed into the west side of town and ran into an ambush", the evaluator could instead ask "Corporal Smith, why did you choose to move into the west side of the town instead of the east side? What would you do differently after running into an ambush there?" This style of debriefing forces the Marines to actively review their own decisions and provide insight on why certain actions happened during the exercise. From here, Marines can then begin their bottom-up refinement of their units and leaders, with the proper view of how the entire training proceeded. The simplest framework that should be used to assess a unit's performance is the number of casualties it received during the exercise, as well as the number of casualties it was able to inflict on the opposing force. The cause of each casualty should be identified so unsafe practices are highlighted by the unit and discarded for future exercises.



Marines debrief after force on force training exercise in Twenty-Nine Palms. Photo by author.

Common Questions and Problems

"Should I keep the same controllers for the entire exercise, or should they be rotated out so that other members of my platoon get a chance to evaluate an exercise?"

It is the author's recommendation that the same controllers be utilized for the entire exercise. This will decrease transition times from engagement to engagement, as well as mitigate confusion over controller procedures and communications. Furthermore, it is extremely beneficial to conduct a comm rehearsal with your controller team before the exercise begins, so that there will be no interruptions during the training. Finally, if you do not have enough personnel to train with and act as controllers, feel free to ask a sister platoon or company for support.

"Should I integrate CASEVAC and LZ drills into my force-on-force exercises?"

Yes. Integrating CASEVAC and LZ drills into force-on-force not only forces your Marines to conduct these important drills in a high-stress, realistic environment, but also enables your unit leaders to work casualty triage and transport. A recommendation to assist with CASEVACS is having a separate controller act as the CASEVAC platform and utilize a POV pickup truck as a helicopter or ambulance. Additionally, it is encouraged that you provide your unit leaders with PRC-152s/117s to practice sending up the appropriate reports to a notional COC (which can be played by the evaluator) for casualties or general SITREPS.

"You mentioned providing notional indirect fire support (IDF) to the exercise; any ideas on how to implement this?"

Integrating IDF effectively into your force-on-force training requires open terrain and practice with your controllers. A method used successfully in the desert has one controller with the mortar/observer team, and another controller wearing a glow belt in the "impact area". As the mortar/observer team conducts their fire mission, the controller with the firing unit "talks on" his counterpart to the probable impact location. The second controller with the glow belt then runs to the location and assigns casualties to any units in vicinity of him. If he has an artillery simulator, he can throw one down as well to simulate an actual impact.

In heavily wooded areas, this method is much harder to employ; it is recommended that a single controller then act as a "IDF controller" and simply move to units that have IDF directed towards their positions and assign the appropriate paints/casualties.

A final method is using dice to assign the probability of success of a fire mission called in by a unit leader (roll 1-2, impacts are 100 meters away from a position, roll 3-4, impacts are 50 meters off, roll 5-6, no impacts, no idea, etc.). However, this method needs to be carefully explained to the training units and have a very simple set of rules. Otherwise, the focus of the training shifts to rolling dice, and not evaluating your units' ability to shoot, move, and communicate.

"I'm in a Light Armored Recon/Combined Anti-Armor Team platoon. Will this force-on-force training work with vehicles?"

Yes! The principles remain the same; the only changes are the methods of describing the paints/ casualties to the Marines inside the vehicles. Recommend having the controllers riding inside the vehicles with the Marines, but still being able to see outside so they can assess the training occurring around them.

"I'm about to conduct force-on-force training with blanks/SIMUNITION rounds; should I still have controllers?"

Absolutely. Nothing laid out in this guide would change with the addition of non-live fire ammunition; the only difference is that your training will be more realistic. However, it is recommended that you still have controllers to ensure Marines know if they are being targeted when they start hearing blanks pop off, and the same paints/casualties are assigned based on the actions of the "enemy" units. Additionally, this allows you to effectively integrate blank machine gun ammunition with rifle SIMUNITION rounds in training.

Common Questions and Problems

"Should the two opposing forces be of equal size, or should one be larger than the other?"

Entirely up to you. However, the most common trend seen in USMC exercises is that the defense is normally one third the size of the attacking force. Marine Corps history is replete with incidents where Marine squads attacked/defended against larger units, and with the Marine Corp's new focus on Distributed Operations³, Marines need to be comfortable engaging and winning against superior forces. Having a scenario where the attacking force is smaller than the defense, or a meeting engagement between two equally sized units, will put Marines in disadvantageous situations that they are not accustomed to. It may also force you as the evaluator to review what tasks can actually be accomplished by your squads/teams against a superior force.

"Would it be beneficial to videotape this training?"

Yes. Videotaping the training on a phone and then exporting/sending it to your Marines is an easy way for them to have "game-time footage" so small unit leaders can go back and review their successes/mistakes repeatedly. If done consistently, it can also allow a unit leader to track the progression of his unit's proficiency and improvement over the course of repeated force-on-force training.

"How often should I conduct force-on-force training with my unit?"

As often as you can. Force-on-force training is the only opportunity for a platoon-sized unit or smaller to assess its combat proficiency outside of a formal field exercise. Take a walk around your local barracks and you'll see Marines doing the same repetitive gun drills/knowledge checks/immediate action drills. Challenge your Marines to put all their skills together against a thinking, aggressive opponent and you will see renewed enthusiasm, creativity, and competition in your unit



Marines during force-on-force play. Photo by author.

³ General David H. Berger, "Distributed Operations" in 38th Commandant's Planning Guidance (Quantico: United States Marine Corps, 2019), 11-12.

Final Thoughts

A quick note on the large, all-encompassing force-on-force exercises put on by Marine Corps training commands, usually as part of a Marine Corps Readiness Exercise or an Integrated Training Exercise. These training events are used to assess the combat proficiency of an entire battalion, regiment, or even division; consequently, there are not enough controllers and evaluators to accompany every small unit throughout the entire event, due to staff/communication limitations. By no means should you or your unit not train hard during these events, due to no one being over your shoulder to provide consistent and fair paints/casualties. However, it is absolutely the duty of the platoon commander or squad leader to perform their own force-on-force training to make up for the lack of combat proficiency assessments at these large-scale training exercises. Do not rely on higher to assess your unit's readiness; it begins with you. For company commanders, this handbook can also be utilized for force-on-force training between your platoons, or even against another company. However, it is highly recommended that you bring in extra personnel from a sister unit to act as your controllers, thereby freeing you up to focus solely on commanding, leading, and evaluating your unit. It may also necessitate the controllers utilizing several comm nets to deconflict radio transmissions from so many units. If the Four Controller Principles are utilized though, the exercise will work.

Additionally, free-play force-on-force can be used as a culminating event to your company's training packages, as opposed to a live fire range that is often in high demand from other units. By deliberately having your evaluators utilize PECLs throughout the exercises, you can measure accomplishment of Training and Readiness tasks, as well as be able to safely observe the effectiveness of your subordinate units' maneuvers from the enemy's perspective. Finally, by utilizing the company's resources to request blank/SIMUNITION ammunition and larger training facilities, you an exponentially increase the realism of the free play force-on-force exercise.

Hopefully this guide has provided you with some inspiration and assistance in getting out there and setting up your own force-on-force exercise. If you are looking for additional resources on this topic, I recommend The Last Hundred Yards by H. J. Poole; it contains an appendix describing another type of force-on-force exercise based on capture the flag that the current author used to train his Marines with good effects. Otherwise, best of luck, and Semper Kilo!

