General Orders

JOURNAL FOR LIVING HISTORIANS OF WORLD WAR TWO In This Issue: From The Editor: Bridging "The Gap" •Letters to the Editor: Physically **Preparing for Tactical Events** Matt Miccuci •The Reading List: From Here to Eternity, The Caine Mutiny, Once an Eagle Tim O'Neill The Combined Arms Team **Tim O'Neill** The Mysteries of "The Grinder" Sgt. Drilldich Improving the Impression: : How A Gen-Y Guy Can Get Gunning with "The Greatest Generation" **Jason Platzner** The Art of War: Sun Tzu On How to Read Terrain **Robert Mosher**

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Fall/Winter 2019

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Bridging "The Gap"

Happy New Year. We begin the living history year of 2019 with a literal gap: there is no Gap. The key event in the reenactor year on the East Coast is gone.

The Gap was a lot of ideas and experiences, good, bad, and deranged, mixed together in a sort annual $W^{f}WII$ jamboree. People attended for all reasons. Some came for the field exercises, either out of love for an authentic experience or just to "go out in the woods and shoot their guns." Some came for the flea markets. Many more came for the fellowship, the chance to catch up with friends and acquaintances only seen once a year in the dead of an Appalachian winter. Some probably came because it was a habit and it gave them an excuse to go somewhere away from the stress and boredom of real life.

But what have we really lost? And how do we get it back? I call this challenge bridging the Gap, because the "gap" has two meanings here: a place and a lost opportunity.

This is the first editorial for *General Orders*, and it focuses on what we lost with the Gap. In the next issue, we will start looking at how to fill that hole in our year.

What did we lose?

I think we will miss something beyond the thrill of a big event. First we should remember what the event gave units. What the Gap provided, more than anything else, was *socialization*. I don't mean socializing. In organizational psychology socialization has another meaning. It is the process by which we become members of a group, accepting group goals, standards, teamwork, and an interpersonal bond. We became *units* at the Gap. This was especially important for large units (like my own 29th Infantry, which is numerous and spread from Virginia to eastern Pennsylvania to Ohio and the Pittsburgh area).

Why?

What is the hobby without big events like the Gap? Simple: it's mostly a scattering of small, local weekend living history interpretations, with units consisting of five or ten members. Without the Gap, the schedules are crowded, participation is scattered. There is time to shake hands, hang out, do some demonstrations. Maybe go get dinner at Applebee's on Saturday night.

It's enjoyable, it meets a basic need of any hobby like ours. But what we don't get is *better*.

If our unit has maybe a squad at a field exercise, but it could field a platoon if everyone was there, we miss the chance to learn, improve, practice standards, approach what it was really about. We might even have a chance to train. (Yeah, *right*. Wipe that "vampire at sunrise" look off your ugly mug.)

At Gap we lived and functioned as coherent units; saw everybody, embraced the team we should be. In the barracks (a subject all its own) we practiced the routine of an army day in garrison, we learned how to embrace the flow of Army life, master the rules and skills of post life. In the field we learned by looking, seeing, and doing that the Army doesn't fight in small groups; it fights as an organized team. (Years ago I described the "regiment" fielding at Gap as "one squad, fifty times." By the beginning of the 2018 event, we had started to get the idea; then the event was gone, the chance was gone.)

There is a different dynamic at a big event, ideas and interactions and satisfactions we just don't have at small local hang-outs.

What about Conneaut?

Conneaut is a terrific event, a set-the-standard event for public display and education. Units have the challenge of combining to form boat teams and landing teams, a chance to practice executing a difficult plan. To me, Conneaut was always a reenactor's *hajj*, like that pilgrimage to Mecca that is an obligation of every Muslim.

But Conneaut is not a reenactor's event. It is necessarily a public event. We are putting on a huge, magnificent show for the public. And for the public it is priceless. It's fun and fulfilling for the reenactors who have a part, but not so much for developing and improving *units*. Because D Day Ohio is properly a public education event, the schedule of activities is relentless and continuous, and it leaves too little time for units to work at improvement and learn to be soldiers (reenacted). The priority has to be at delivering a product to the public, and that should *not* change.

The Gap was just the opposite. It was large; but other than the field exercises, units could spend their time and resources for their own purposes. Some units wasted that time, but most benefited.

There was just an advantage to large scale events that we are in danger of losing, and in that loss the hobby will lose its grip on shared standards and philosophy. It will contract as serious reenactors drop out, and when that happens our pride will fade away and with it our relevance.

Next time, we will discuss what we can do to bridge that Gap.

* * *

Note: General Orders is not supposed to be a private soapbox for the editors. If we deliver on our potential it will be because serious reenactors are willing to contribute. That's a slow process.

We accept articles written by reenactors and addressing (with eloquence and dignity—no trolling, complaining, or accusing) learning topics, suggestions for improvement, and other issues that interest our community.

We also accept letters to the editors. Again, professional discourse, not insults.

LETTERS TO THE EDITOR

In this issue we are introducing a new Column, "Letters to the Editor", consisting of the thoughts, evaluations and suggestions of regular General Orders readers. We encourage everyone to participate.

Physically Preparing for Tactical Events

Do you guys train for events? Have you thought about doing so? Is this a crazy idea? We have 2 weekend long full immersion events happening this fall. Are you preparing physically for these tacticals? You should be. Here's why. Events are our "GAME DAY". They're our little Super Bowls!

Let's forget the obvious fact that a real WWII infantrymen was in shape. Those guys were young and had a full time job of training and preparing to kick some Nazi ass. We're in a different situation. This is our hobby. The majority of us aren't in our late teens or early 20's anymore. We have full time jobs, families, and other duties. Our metabolism has changed. The aggressive testosterone that was pumping and driving us to be lean, muscular, and in shape for the ladies has perhaps diminished. After a long day of work the only thing I want to do is sit down on the couch with a rocks glass full of bourbon.

We, as a unit, have to start thinking about physically preparing ourselves for events. It's too much to ask of our bodies to throw on heavy equipment and sprint across a field, carrying a 10lb rifle, when the last time you ran was high school track. When was the last time you dug a 4' diameter hole 3' deep? Probably a while ago if at all. You could be digging all weekend with the tiniest T-handle folding shovel ever created by man (not true but it will feel like that). If you're not remotely preparing your mind and body you're asking too much from those old bones.

We don't have to join a gym or become a cross fit nut. Starting to exercise a week before an event is too late. For our purposes you only need to focus on 2 things. Core strength and cardio. That's it. If you want to become a gym rat and bench a ton of weight that's great. But there's a difference between "gym" strong and functional strength. We're looking for (as was the WWII army) *functional strength*. The toughest guys I've ever worked with were on a carpentry crew in NYC. They didn't look buff. A few had small beer guts. But they could carry a stack of plywood or a steel girder all day long like nothing. We'd always laugh at the "buff" college kids we'd get in the summer time because they couldn't hack it.

Consult your doctor before doing anything. But I feel all we have to do is start a walking/running, planking and push-up program. Do it 3-4 times a week. Just be consistent. That's the key. If you run, take 30 yards where you sprint and then try to calm your breathing down while still jogging. If you can't run go on power walks or hikes. Just elevate the heart rate for an extended period. A rowing machine can do wonders if properly used. Learn to adapt to the discomfort. The discomfort is the sweet spot you want to stay in. Planks are great for building your core muscles. Those of you with bad backs this is a super alternative to sit-ups. Plank as long as you can tightening your core and keeping your back straight. You should be straight as a "plank" . . . get it? It's surprisingly mental. Set a timer for 3 minutes. When you can't go anymore, rest for 3 seconds; do 3 push-ups to pay for the rest you just took and then back to plank. You'll be surprised how much a stronger core will help when you've got your pack and web gear on. Rolling out of the prone position will feel like nothing.

Side note: There's an 8 year old at my gym who planked for 2 hours and 45 mins. He could have kept going but it was past his bedtime. No joke.

Set a goal of 50 push-ups a day. Do them in sets of 5 or 10 or 2 . . . or 1. Do them in your office or after your run. You have all day to complete 50. Just get them in.

I promise if you keep a consistent regimen you'll notice a difference at the next event. It will be more enjoyable. You'll always be sore after a tactical. That's a given. But you'll perform a little better and safer.

The tactics we practice only work with momentum. The next time you a flank a machine gun nest while bounding with rapid movement it will finally make sense. The Germans are not used to the Allies moving through terrain with any speed. Watch some YouTube videos of the GAP and take notice. Slow, upright, cumbersome movement isn't how it's done.

If you need motivation just remember you're preparing for "game day". Embrace the suck for 1 hour or less. Just do something. It will change your life and hobby.

Matt Micucci is a professional actor living in Los Angeles. He is also a regular member, along with his father Mike, of the 29th Division Living History Group based in the Virginia, Maryland and Mid-Atlantic area.

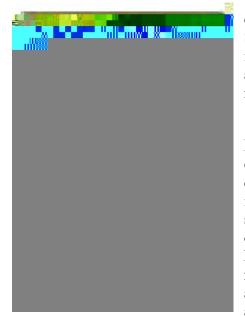
THE READING LIST

What should be on the living historian's reading list?

In each issue of General Orders we will consider at least one book that will contribute to your impression, your performance, and your enjoyment of the hobby. Original references, including FM's and TM's and special texts are available in the resource library. But some works are longer, much richer, and must be read in the complete and original form.

Some will be nonfiction historical impressions (like Rick Atkinson's WWII trilogy); some will be useful for leaders. Some are reference works for impression.

For the first offering, I have selected three important works of fiction, all written by veterans (two published shortly after the war, one in the 1960's). Each provides a different take on the war and the people who won it, as well as offering up a few lessons in leadership and duty.



From Here to Eternity (1951) is a classic, often described as the greatest novel ever written about the United States Army. It won the National Book Award in the year of its publication and a film adaptation famous in its own right and for its own reasons (though it could never live up to the novel's eloquence and scope).

James Jones was a veteran of the 25th Infantry Division before and during the Pacific War. Many of his own experiences are woven into this novel, which takes place during the pivotal year of 1941. Living historians will find it interesting because it describes in fine detail the social structures and folkways of an army manned during the desolate economic depression by men who would otherwise have been riding the boxcars and working for food. While it reflects that prewar attitude, it also makes clear that things are about to change. Everybody knows it, but characters know it and adjust to it in different ways. The army of 1941 is tough,

but also cozy in odd ways—a world of men trapped in a comfortable prison of predictability and rules and walled off from a deceptive tropical paradise just beyond the gates of their world—a place to visit and enjoy in their own way, but always aware of an apartness. They're oppressed, degraded, and separate. And proud of it.

The author's point of view is that of the enlisted soldier, and he describes this with a sure hand. The officer class (for it was indeed a social class then, defined not by wealth but by education and philosophy) is something he views through tinted spectacles, and its definition is less objective, viewed from a distance.

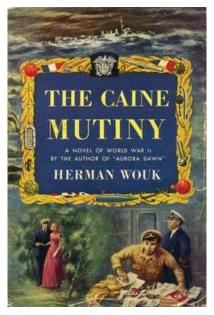
Throughout the lengthy story, a spectator hides, barely, in shadowy places, watching the characters. This cold watcher is War. The soldiers are aware of it, but they prefer to look ahead to a weekend pass.

The story pivots on two personalities: First Sergeant Warden, one of the few combat veterans (with the 30th Infantry in China in the 1930's), a hard man but a fair one, often in a

twisted way, who knows every man in his company. In that critical year, Warden's life is complicated by the arrival of private Robert E. Lee Prewitt, recently a star in the regimental bugle corps riding the special duty gravy train. His stubbornness has brought him back to straight duty in a rifle company—and not just any rifle company. Company G is the center of a boxing mania, determined to regain the Hawaiian Division championship. Prewitt is an experienced, gifted lightweight who has given up the sport; the company commander is determined that Prewitt fight. Warden is in the middle, dismissive of the commander and frustrated by Prewitt's hard-headed refusal to bend. Prew is an excellent soldier, but he has his own Kentucky hills sense of justice. This battle consumes G Company until, on a Sunday in December, they discover the boxing championships are part of the past.

From Here to Eternity is a key to understanding soldier culture in the year before the war. For a look at G Company in 1942, mopping up resistance on Guadalcanal, try *The Thin Red Line*. Both novels have been filmed—*From Here to Eternity* in an excellent adaptation in the 1950's, and again as a less imposing television mini-series in the 1970's. *The Thin Red Line* was adapted, though few remember it, in the early 1960's, but the film lacked the scope and texture of the novel. A second try in the 1990's was much better, but it missed some of the key quirks that were subtly made in the novel.

Read the book.



The Caine Mutiny (1951) by Herman Wouk was one of the very best of the postwar fiction generation. It's a Navy story of the Pacific War, which takes it a little outside the usual territory for reenactors, but it is a powerful and insightful study of toxic leadership and hostile subordinacy that result in the removal of a combat vessel in wartime. Those who have served recognize what is happening early: a new captain arrives at the USS Caine, an aging and decrepit WWI destroyer converted to a fast minesweeper (though it never sweeps a single mine until after the war). Captain Queeg is a little senior for this command. It is evident that it has taken longer than usual for him to be qualified for independent command and his insecurities develop into a stubborn inability to gain the loyalty of the other officers. The leadership climate reaches its low point just before another climate change: the first terrible hurricane to batter the US Third Fleet off Okinawa in 1945.

The novel resolves in an unexpected twist; when the key officers are court-martialed for relieving the captain, the deft defense counsel (a lawyer turned carrier pilot convalescing stateside) manages to acquit the defendants, but in a powerful scene at the celebration turns the whole story on its beam-ends. The problem would never have happened if the officers had thought of the mission first instead of retreating into petulance and cornering their tormented captain. The takeaway: fighting a war might just be a *little* more important than your hurt feelings.

The film (with Humphrey Bogart in a career-high turn as Queeg) was excellent. Watch it if you haven't (but read the book first). The novel was adapted by the author into a stage play, *The Caine Mutiny Court-Martial*, in which the story is related through courtroom testimony. It was quite good, and occasionally has a revival. One failed film adaptation in 1988 managed to miss every lesson of the novel. Don't waste your time watching the DVD.



Once an Eagle is a 1968 novel of some length by Anton Myrer, a WWII veteran. This was a landmark interpretation of military leadership, episodically following the *long* career of Sam Damon, a 1917 enlistee who retires in the 1950's as a Lieutenant General commanding the Infantry School. It gives the reader a close look at the Army in France in 1918, in the postwar confusion followed by economic doldrums and skeletal budgets, in the brutal advance from New Guinea to the Philippines, and ends in the origins of the Viet Nam war.

Sam is a sort of thoughtful version of Robert E. Lee Prewitt, with a stubborn determination to be a good soldier no matter what the cost to his career. Dismissed in peacetime as an irritant and a Bolshevik, he rises in wartime as he was held back in peace.

The reverse of this medal is Sam's nemesis, the cold and ambitious careerist Courtney Massengale. The two embrace parallel but contrasting professional lives: Sam commanding troops in desolate, dusty posts while Massengale seeks staff assignments and attaches himself to the star of Douglas MacArthur. The parallel tracks merge with the invasion of the Philippines, where Massengale has risen to corps command, with Damon commanding one of his divisions. The tragedy resolves itself in a desperate night battle caused by Massengale's ambition.

It is difficult after so many years to explain how powerful an influence this novel wielded in the officer corps during the later years in Viet Nam. The themes of professionalism and careerism rang true then as they do now.

The value of *Once an Eagle* for our audience are not only in the descriptions of combat, though they are an essential thread. Of particular interest to us is the description of the Buna campaign in New Guinea (lightly disguised) and the challenge of turning it from a desperate toehold into a victory.

But the theme is the question of what it means to be a soldier—where our duties lie, what price we are willing to pay and for what outcome. Those are questions worth considering today. Sam Damon is only history, but the Massengales have returned. With a vengeance.

The Combined Arms Team

By Timothy O'Neill

WW II living history has for years been an "infantry thing." Large events would usually include some wheeled vehicles, often in ways that confused any large field exercise. Now and then an armored car might appear, and a few tracked vehicles would show up for a special occasion. The results were often disappointing.

There are two reasons for this. First, vehicle owners tend to be proprietary about their equipment, and have expected over the years to have an independence of action that contributes little to the maneuvers. The vehicles are scattered here and there, usually

with their home units, and there is never enough concentration of mounted force to make a difference. Second, most commanders had no real idea how to use the vehicle assets they had at hand. There is an art to making infantry and mounted units work together effectively and it is generally ignored.

That has created even more problems as the number and variety of vehicles available for events has steadily increased. Making these valuable resources contribute to a field exercise takes some wheeling, dealing, and skull sweat. We can't put that off forever. Having more armor available can lift the level of realism in the hobby, or it can create confusion, frustration, and a mobile safety threat.

Let's try thinking this through, turning a problem into an opportunity.

The Combination of Arms

Armies wrestled for years with the problem of combining infantry and mounted forces. The long debate, largely between the "tanks as infantry support" and the "armored force as independent arm" proponents is chronicled in the ReenactorPrTheounteP

pone

tanks protects the tanks' weaknesses

has a HQ element in a halftrack, and three platoons carried in 4 halftracks each. (For those who haven't read the FM on armored infantry in the resource library of ReenactorPro, each platoon has a HQ element and first squad in one HT, two HT's carrying the 2nd and 3rd rifle squads, a mortar HT and a machinegun squad HT.)

The "swap" method works at company level, too. All that is involved is switching one platoon from each company, creating two combined arms teams. (Later practice uses terms that were less solid in WWII: a combined arms force at battalion level is called a "task force," while a cross-attached company is called a "team." For this explanation, we will keep it simple.)

"INFANTRY HEAVY TEAM"

Figure 3. When we trade a tank platoon and an armored infantry platoon, we produce a tank-heavy team and an infantry-heavy team. This two-company force is now stronger because each maneuver team is composed of mutually supporting combined arms.

Now, this example assumes full strength units. This seldom happens in extended combat, and is even less likely to happen at a hobby event. But we can easily do what commanders do in wartime: *the best we can*.

Figure 4. This is what we would call a "balanced team"—that is, neither tank- nor infantry-heavy. It's not impossible to imagine having the armor assets to make this happen at a large tactical exercise. Two tanks and three halftracks would do in a pinch. However, we would not like to go with just one tank unless absolutely necessary (doctrine discourages it because two tanks can provide mutual support, but one tank is a sitting duck). In

"TANK HEAVY TEAM"

this case, this is the command element of an armored infantry company (halftrack on the left) and one platoon, plus one three-tank platoon from another company.

How to Use Tanks

The first thing to master is the idea of *task organization*. This is the real goal of the crossattachment procedure and other tricks of the armor trade: *no unit is organized to accomplish every task it may be assigned*. The types of weapons and combat elements of all branches are part of the approach to each and every mission on the battlefield. We organize a force—often temporarily—to meet the demands of a given mission in the most effective way, based on the mission, the enemy, and the forces available.

When we organize a group of resources to tackle a given mission, the result is a *task force*.¹ This approach demands flexibility, but it solves a basic problem of modern combat: it can place the right forces at the right spot instead of having them scattered and ineffectual.

If we are going to use tank-infantry teams, some basic principles of tank employment are useful to know:

- Tanks are used in the offense to exploit breakthroughs, not to support infantry attacks. Tanks move fast; infantry on foot moves slowly. If tanks are used in support of infantry attacks, it sacrifices the mobility that makes them effective.
- In the defense, tanks are employed in reserve to counterattack and prevent breakthroughs.
- Tanks are best employed in mass.
- Tanks are never used alone.

All this said, there is one more principle: these rules are sound and are there for a reason. But the enemy gets a vote. You may have to do what you have to do in dealing with the battle you're handed.

How to Use Armored Infantry

Infantry field manuals are in the 7- series. Armored infantry, however, is found in the armored force (17-series) field manuals (see FM 17- 42^2 in the ReenactorPro resource library). This is no accident. Armored infantry is explicitly a part of the armored force, and its tactical doctrine is based on that fact.

Armored infantry rides in halftracks, not because of the armor protection (which is not impressive compared to the tanks') but because of the mobility. Infantry does not fight from the halftrack carriers except as a last resort: casualties in loaded infantry halftracks tend to come in groups of ten. Nor is the halftrack just a "battle taxi." Yes, it can keep up with the tanks, but when the doctrine hits the fan and the enemy has to be destroyed by firepower, maneuver, and shock effect, the infantry squad in the HT dismounts and fights as infantry, and the halftrack (with its extra firepower in the form of a heavy MG and one or two light MG's) provides fire support, maneuvering as needed to be part of the squad.

¹ The term *task force* is roughly equivalent to the German *Kampfgruppe*. The enemy became very adept at forming Kampfgruppen, and using them to bring maximum force to bear on the key place on the battlefield (*Schwerpunkt*) using available forces. Those forces are often smaller than we would like, and are not always the kind we would prefer to have in hand, but we always do the best we can with what we have.

² Documents available in the ReenactorPro resource library are shown in boldface.

As noted earlier (Figure 2) the armored infantry platoon consists of three rifle squads (one in the same HT as the platoon command element), a mortar carrier, and a MG squad carrier.

The mortar carrier has an 81mm mortar, not the dismounted infantry's 60mm. There is a good reason for this. The three mortars in the company will often have to provide fire support for the rifle squads. The 60mm can only reach out and touch the enemy to about 1300 yards. The rifle squads in their HT's move much faster than dismounted infantry, so the greater range of the 81's provides better cover as the rest of the company advances.

The MG section in the last HT carries two light MG teams and plenty of ammo. These go forward with the rifle squads.

How to Use Them Together

For this, we can consult FM 17-36 and FM 17-42. Here are some tips:

Infantry supports tanks by:

- protecting tanks from personnel manning small AT weapons.
- seizing ground from which tanks may attack.
- following the tank attack to secure the ground for the tanks to reorganize, mop up, and assist in consolidation.
- forming a base of supporting fire for the attack (using infantry vehicles in defilade with cover, concealment, observation, and fields of fire).
- finding and removing or destroying obstacles to tank movement.

Tanks assist infantry by:

- supporting by fire with main gun and machine guns.
- neutralizing enemy automatic weapons.
- neutralizing the objective until the arrival of infantry.
- breaking up counterattacks.
- neutralizing or breaking up the enemy's reserves.
- breaching wire and other obstacles.

Armored infantry uses mobility and firepower to:

- move infantry under protection from small arms fire and light shrapnel to dismount points.
- use vehicle weapons to suppress fire. (The cal. 50 is on the halftrack for AA protection, but it is also very good for suppressing fire. When possible, the .50 should be dismounted for a better protected firing position.

In the approach march:

• use common formations: column, wedge, inverted wedge, echelon.

In the attack:

- use fire and maneuver.
- envelop when possible.
- place vehicles in defilade; put platoon vehicles under control of an NCO.

Let's Try It Out

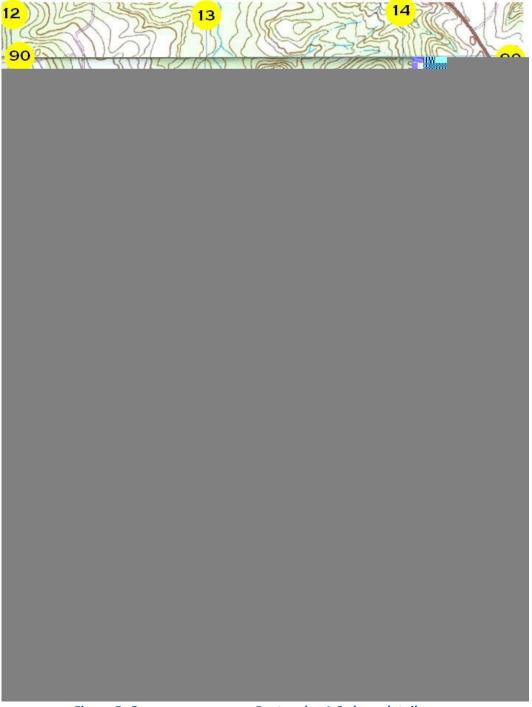


Figure 5: Our maneuver area. Rectangles 1-3 show detail areas.

Our chosen terrain is a ridge line between Bonham and Sally Creeks, part of the large training area at Fort Benning, Georgia. We selected this post because the Maneuver Center of Excellence, combining the Infantry and Armor Schools, is located there.

This is an area of fairly soft soil. What may appear to be ridge lines are really just the spaces between eroded creek beds and draws created by drainage over the years as water flows from

higher ground and into Upatoi Creek, a tributary of the Chattahoochee River. Remembering our studies on Terrain Analysis and Operations (Courses 1 and 4 on ReenactorPro's "Continuing Education" program), there are some observations that suggest challenges and opportunities.

First, the creek beds are heavily wooded, and mobility across the grain is not assured for heavy vehicles. Main roads tend to follow the ridge lines; roads that cross the valleys and draws tend to be secondary roads (gravel with concrete culverts at crossing points over streams). The high ground (ridge crests) tends to be fairly clear of woods. Predominant large vegetation is pine forest, rather scrubby and surrounded by low scrub and "wait-a-minute vines".

An Example

Your force is designated TEAM TRACK, composed of one tank platoon and one armored infantry platoon, both understrength (Figure 5 above is our available strength and organization).

Field Order

1. INFORMATION:³

and Enemy situation: Patrols prisoner interrogation indicate that the enemy has placed a platoon-sized fortified outpost vic GRID 127882 at a position just south of hill 497. Composition of the OP is not known, but examination of aerial photographs and indications of spoil and attempts to camouflage suggest at least one AT gun may be present. The location of the OP is a "false crest" overlooked by hill 497, selected because a defensive position on 497 itself would allow infantry to approach behind the false crest, making observation and fields of fire difficult.4

Friendly situation: 3/334 Infantry defends sector south of Hill 497.

2. MISSION: TM TRACK will pass through MLR in 3/334 sector, advancing north along the main road and securing OBJ ACORN; be prepared to continue on order to secure Hill 497.

TROOPS

TM TRACK is composed of A/51 Armored Infantry Battalion, minus 1st and 3rd platoons; 1st Platoon B/705 Tank Battalion.

TM EASY attack will be supported by mortar fire and heavy machinegun fire from heavy weapons company, 3/334; DS artillery support from 178 Artillery Battalion; and from 2nd platoon cannon company 334.

³ For recent veterans: we use the terms of the field order (OPORD) current in 1944. INFORMATION is now SITUATION. See Lesson 4 of the Operations online course at ReenactorPro.

⁴ This is an important lesson about key terrain. Hill 497 looks like a fine place to occupy, but only to a dumbass recruit or a second lieutenant. The false crest allows an attacker to creep up to within 300m of the higher ground, screened by the smaller rise. To cover this, the large OP would have to put out a smaller OP, which defeats the purpose of having the outpost to begin with.

3. TACTICAL MISSIONS FOR SUBORDINATE UNITS

a. All elms⁵ TM TRACK dpt⁶ AA 0530 and move to LD; on order begin approach march.

b. On approach march, 2nd plat 51 AIB and TM command group lead, with 1 plat B/705 to rear prepared to provide fire support, until reaching PL OAK.

c. At PL OAK (RJ vic BM 456⁷) tank plat takes position to overwatch advance of 1st plat 51 AIB, providing fire support during infantry assault.

d.1st plat A/51 AIB dismounts at PL OAK and assaults OBJ ACORN, supported by tank fire and HMG on vehicles.

e. All mortar and artillery fire begins prep on arv^8 TM TRACK at PL OAK, lifts on command of CO TM TRACK during final assault.

f. On securing OBJ ACORN, tanks advance to cover infantry in consolidation on the objective.

x. TM TRACK continues atk⁹ to secure vic¹⁰ Hill 497 on order.

4. ADMINISTRATIVE MATTERS: (omitted)

5. SIGNAL COMMUNICATIONS: (omitted)

Execution: step by step

TM TRACK has moved by route march to their assembly area to the rear of the 3/334 sector. This time is spent doing last-minute resupply and maintenance (fixing what went wrong in the road march). Finally it's time for SP (start point). The team moves out, quickly crossing the LD (line of departure), at which time the team deploys into approach march formation.

⁵ "elements"

⁶ "depart/departs"

⁷ BM 456 is a surveyor's bench mark located in the vicinity of the road junction128878.

⁸ "arrive/arrives"

⁹ "attack/attacks"

¹⁰ "In vicinity of"

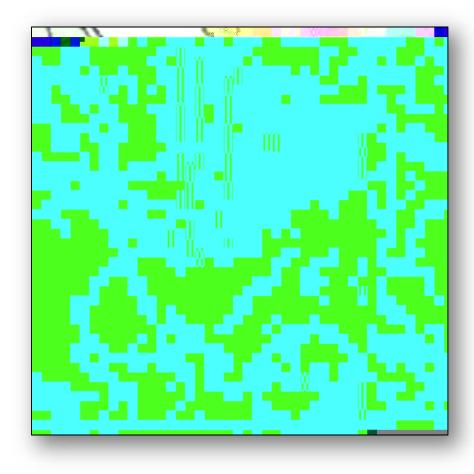
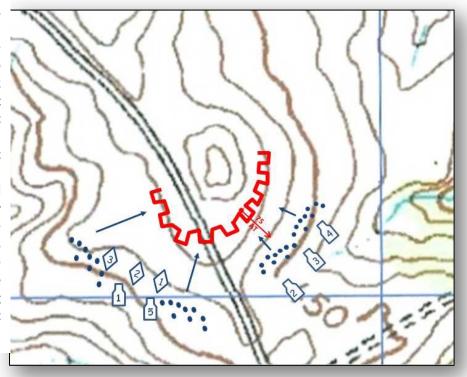


Figure 5-1: Team moves out of the assembly area (AA) in column. In this case, tanks lead, because they will be moving into an overwatch position very soon. On arrival at the designated LD (just beyond the 3/334 MLR [front line]) the tank platoon peels off and occupies defilade positions on the high ground, from which they can provide direct fire as needed to cover the advance of the infantry in halftracks.

The infantry crosses the LD. Note that halftrack 1 is the team commander (CO A/51); halftrack 2 carries the armored infantry platoon leader and the first squad. Vehicles 1-3 proceed for the moment in road column; vehicles 4 and 5 deploy in echelon to the right flank.

(Diamond shapes [see FM 21-30] are tanks; the other shapes are halftracks.)

Figure 5-2: North of the LD there is a defile-high ground and embankment on the right of the road, down slope and woods to the left. If the enemy can knock out the lead halftrack at that point, the attack will get complicated. So the team commander has the halftracks halt briefly south of the central hill, allowing the tanks to bound forward and take another overwatch position in defilade (remember "defilade" means behind the crest with only the turret showing). This will allow the infantry to clear the defile by using tank suppressive fire against that pesky AT gun (a PAK 40).



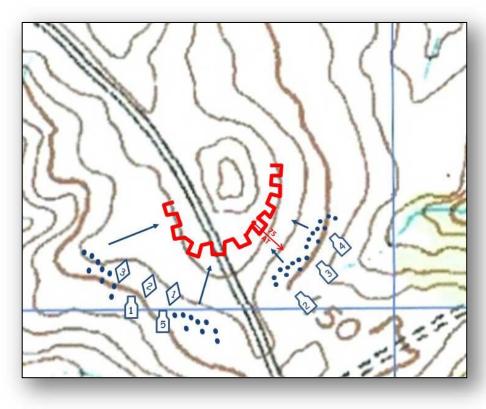


Figure 5-3: We're lucky today the infantry made it through the defile. There is no covered position between the defile and the objective to organize into an attack position, so with a hearty "Hail Mary" we launch the attack.

The tanks deploy on the left flank, tormenting the enemy with 75mm and cal. 50 fire while the halftracks disgorge their squads and use their cal. 50's to add to the tank suppressive fire; the squads deploy and assault the left of the enemy's position. The remainder of the infantry dismounts and attacks from the front, using defilade provided by the slope of the ground ("dead space").

Conclusion: See how easy it is? Except, of course, it isn't. Remember: *the enemy always gets a vote*. The PAK 40 might have nailed one of the tanks (you hope the other two finished it off), and the infantry still has to make the close assault work.

Fire Support: Note that the field order specified four sources of fire support; if nothing else is going on at that moment, you might actually get all three.

From 3/334: the battalion heavy weapons (M) company, there is an 81mm mortar platoon available to add HE and smoke. There are also the mortar sections from the forward rifle company positions, but they are at the extreme edge of their range, and that annoying high ground blocks a good view of the objective. There is also the heavy machine gun platoon (the water cooled M1917's); these can be fired like artillery using a gunner's quadrant and firing tables, and rain plunging fire down on the objective.

From 334th Infantry: The cannon company can provide as much 105mm as can be spared from other missions (you may not be the only ones attacking today).

From division: Usually a regiment on line will have one of the division's three direct support (DS) battalions allocated to support the 334th in its mischiefs. This could mean eighteen 105's raining terror down on the enemy (although since you're basically knocking out a platoon OP, that's probably overkill unless everything else is quiet).

And, *from the sky*: if AAF assets buzzing around in the area have nothing else to do, the air liaison officer at the 334th might just see fit to encourage any flights of P-47's in the area with nothing else to do with their ordnance stores to add to the party; a couple of jugs bombing and strafing the competition is always good for morale.

Reminder: Once you have overrun the objective, don't just sit down and have a smoke. *Consolidate on the objective*, and remember you may have to continue the attack northward and secure Hill 497 for The Cause. Hope for the best, but plan for the worst.

Takeaways:

- A combined arms, tank-infantry team is stronger than a single-branch team of the same size.
- Tanks add firepower and shock effect to the infantry in the attack; infantry provides protection for the tanks and takes the lead in consolidating on an objective that has been secured.
- In WWII, tanks were intended to be used in the *attack*, not in the *defense*. When tanks are allocated to a defensive role, they usually form a reserve and counterattack force.
- Tank-infantry teams are created by cross-attachment.
- Antitank defense is the primary mission of tank destroyers, not tanks. (This changed by the 1950's, but we will deal exclusively with WWII doctrine and practice.)
- From Clausewitz: "The important things are always simple; the simplest things are always hard."

Next Time:

In the next issue we will examine how tank destroyers were used in WWII, and how they were integrated into the combined arms team.

PUSHING THE TRAINING ENVELOPE

Mysteries of the Grinder: The Platoon Guide



Platoon Guide shown in his proper position -- on the RIGHT and IN FRONT OF the platoon. The Platoon Leader is on the Guide's left. No one is in front of the 2nd squad.

I have to say this; can't help myself. *Most* reenactors have a hard time with drill and ceremonies. We march like snakes playing handball. It should be easy. It's simple. But this is one of those cases in which the simplest things are the hardest.

What's the problem, then? We have an excellent resource (**FM 22-5**, Infantry Drill Regulations); and field manuals are supposed to explain it all. Right? Why have FM's if they don't?

Here's the problem: the long-suffering

writers of FM 22-5 had an impossible task putting together the part of the manual that addressed close order drill.¹ When you think about it, it's easy to see why. What if you had to use the printed word to describe how to make a layup shot, learn to waltz (if anybody does that any more), or do the sidestroke (the kind you do in a swimming pool)? It would take pages and pages, and if only the book were available you would likely never sink a shot, avoid stepping on your partner's dainty foot, or make it across the pool.

You just have to *do* them, and practice with the help of a teacher or a coach.

So it is with close order drill. Some things impossible to explain in a manual are obvious when you're in formation, on the grinder,² and having it all explained to you by a friendly, helpful drill sergeant.

This time I'll focus in one of those mysteries of close order drill: the platoon guide. Some reenactors have an idea what the guide is and does; some confuse this player with the guidon bearer. The rest have never heard of the guide. But there is one happy note before we start. I began by saying the simplest things are hardest. The guide's dance is already hard. But it's something you should know if you're working with your unit on drill, because the veterans (yes, the "original cast") knew about the guide.

¹ "Close order drill" is *marching*. The practice of tactical movement was called "extended-order drill." The modern FM 22-5 focuses on drill and ceremonies, and leaves the tactical dances to other manuals.

² What is a grinder? It's a place where you learn to do simple things (and the simple things, as we know, are the hardest) like pushups and keeping in step and doing manual of arms with the rifle. It's usually concrete (though I personally have a preference for asphalt because of its heat-absorbing properties, familiar smell, and the way heat seems to radiate from its surface like a beckoning mirage on a hot summer's day. Concrete is hard as woodpecker lips, of course, and is quicker to promote blisters. You don't always get to choose your poison.

What is the platoon guide? In the simplest sense, the guide is an assistant platoon sergeant of a rifle platoon. He had duties in combat (for example, seeing to ammunition reissue). But his actual guide duties derive from close order drill. If you have enjoyed the Civil War hobby, you already have a start: he is the descendent of the *general guide* of a battalion. He is an NCO who marches to the right and front of a platoon and keeps them marching straight. That takes practice—even if a reenactor is sober, he will have to concentrate a bit at walking for any distance in a straight line unless there is a road to help him out.

Let's take a look at some of the details. We'll start by having the platoon fall in. (We should do that more often, and do it right.) I'll review the details and illustrate the role of the guide.

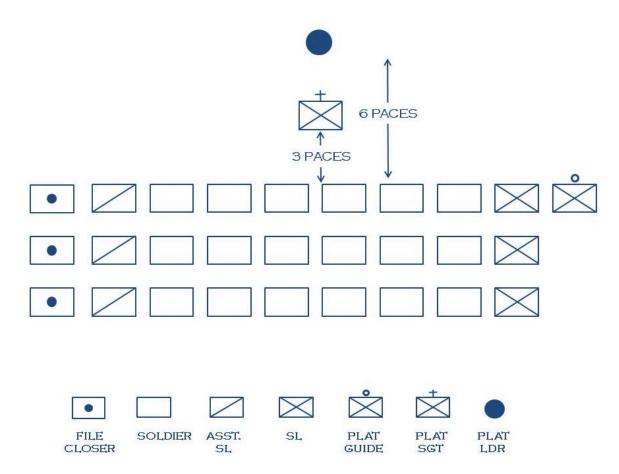


Figure 1: The platoon falls in. Here the platoon sergeant has blown his whistle and encouraged his soldiers to fall the &@%#\$ in. The first to take his place is the GUIDE. Everybody moves into formation from the point where he stands. The first squad leader is just to the left of the guide and an arm's length away. The rest of the squad falls in to his left. The other two squads cover down on the first squad, also an arm's length distance. In the diagram above (note the symbols shown at the bottom) there are three soldiers who are not members of the platoon. They are "file closers"—soldiers not assigned to any platoon (e.g., clerks, messengers, etc.) who just fall in at the end to even out the formation, "closing the files."³

³ Terms: a line of soldiers, one behind the other, is a "file." A line of soldiers, one beside the other, is a "rank." These are the "Snuffys" who do the work and don't skip around the formation. When the labor movement started in the latter 19th Century, many of the members were veterans of the Civil War. It was natural for them to refer to the mass of membership as "union rank and file."

The platoon leader (the black disk which resembles a hole seen from above) stands six paces to the front and center. The platoon sergeant calls the platoon to attention and says REPORT. Each SL, front to rear, replies with the personnel status of his squad ("ALL PRESENT!" Or "ONE MAN ON KP!" Or "ONE MAN UNACCOUNTED FOR!"⁴). If the platoon is under arms (that is, carrying their weapons) he then orders INSPECTION—ARMS! and waits for the dreaded clink of an expended round (a bad thing). Then ORDER—ARMS! He then faces about, salutes, and says to the lieutenant SIR, THE PLATOON IS FORMED!

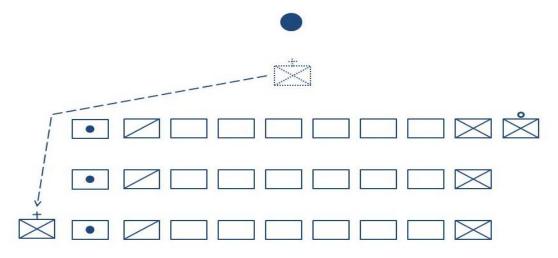


Figure 2: The platoon leader then responds: POST! and the platoon sergeant marches by the most direct route to take his marching position behind the last soldier in the rear squad.

Now the platoon leader is in charge and it's time to move out. Let's say it's time for close order drill, so we're off to the grinder. Here's where the platoon guide comes in.

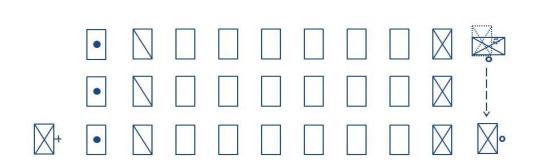


Figure 3: To march somewhere, the platoon leader will order RIGHT—FACE! Everyone in the platoon EXCEPT the guide simply faces right. The GUIDE, however, faces ABOUT, steps to the front of the rear squad, and faces LEFT.

⁴ NOTE: There is no such response as PRESENT AND ACCOUNTED FOR. If Private Slipschitz is present, he is by definition accounted for.

Why? Because, unless otherwise specified, the guide's position is on the RIGHT FRONT of the formation. (When the platoon is marching as part of the company, the platoon leader will usually take his position at the front of the left squad, where the guide was when the platoon was facing forward.)

Time to go. The platoon leader orders FORWARD—MARCH! and everybody steps off at a quick march pace (and *all* at the SAME TIME—nobody waits for the man in front of him to go first. That's a caterpillar walk).

Now we get into the part that's hard to describe. For fans of FM 22-5, this is not in the book. It's Old Army stuff. I learned it as a kid in military school, taught by a WW II master sergeant. This is where the platoon guide really earns his pay. Read carefully:

The platoon comes to a corner and the platoon leader orders COLUMN RIGHT—MARCH!. Easy. But not. You would think the platoon just turns right by files, one rank at a time. No mystery there, right? Wrong. The right (3rd) squad leader AND the platoon guide BOTH pivot right at the same time, yet here's the tricky part – the 3rd squad leader immediately MARKS TIME – that is, STEPS IN PLACE – AFTER his pivot while the platoon guide HURRIES UP and gets back IN FRONT of the 3rd squad leader. The platoon guide then takes up the half-step for just a little bit. This allows the 2nd and 1st squad leaders to turn right and dress on the 3rd squad leader who, once these other squad leaders have caught up after turning the corner, will just follow the guide again, who will have now returned to the full quick-time step. All other ranks just "follow the leader".

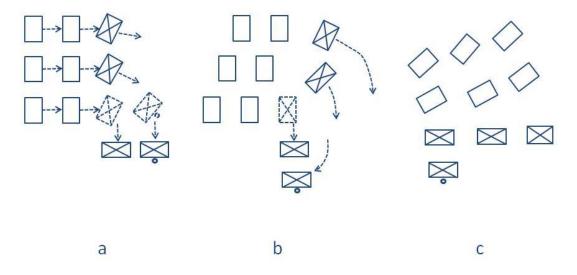


Figure 4: The platoon leader orders COLUMN RIGHT—MARCH! Now pay attention. The GUIDE and the SL behind him both pivot at the same time (a). The GUIDE speeds up a bit and slides back in front of the SL (b). Note that the GUIDE is moving independently to resume his position. The two left SL's just arc around just as they did at column right, and their squads follow them (c). REMEMBER: the GUIDE has to stay at the RIGHT FRONT of the formation.

For COLUMN LEFT—MARCH!, life is much easier for everybody. The 1st squad leader pivots left and marks time while the 2nd and 3rd squad leaders pivot slightly and dress accordingly on the 1st squad leader until they have performed the corner turn, whereupon everyone resumes the full quick step.

But what's the platoon guide doing through all this turning to the left? He's just marching at the quick-time pace, pivoting left slightly, and dressing. Remember, he's the *guide*—he maintains direction AND pace. He's acting like a car's differential gear; he's the outside wheel, which travels at the car's constant velocity (for our purposes, at the regulation 30-inch, 120 steps per minute pace) while the inside wheel (1st squad) slows down only by decreasing the distance traveled.

Now, a special case: a shift to the flank. Remember, when we move in column (which confuses come reenactors who were CW enthusiasts and read Casey; this was called "marching by the flank"), we shift direction by COLUMN RIGHT or COLUMN LEFT, and each rank pivots in turn. When we move by the LEFT FLANK or the RIGHT FLANK, everybody pivots together.

I think it's perfectly permissible to have everybody just do that without elaboration, but I'm going to describe the *excruciatingly correct* method.

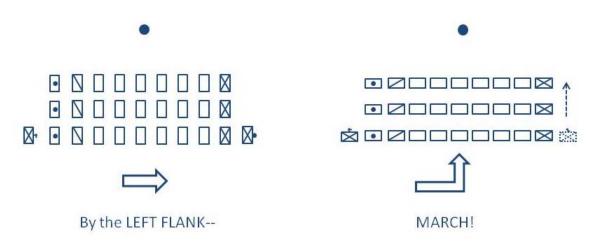


Figure 5: At the command BY THE LEFT FLANK—MARCH! all members of the platoon pivot simultaneously. The GUIDE then has to resume his position at the right front. To do this he moves at a DOUBLE TIME to a position to the right of the front squad. As always, the rest of the platoon keeps aligned to his position. NOTE: if the platoon is UNDER ARMS (usually at right or left shoulder), the GUIDE goes to PORT ARMS to make this move, then back to RIGHT to LEFT SHOULDER, as appropriate. Why? Because when we move at double time, we always go to PORT ARMS for better control of the weapon.

(Note: For extra credit, and to learn about what all you "Snuffys" in the ranks must tell your feet to do to follow along, refer to FM 21-100 "Soldiers' Handbook", paragraph 100. *b*. (1) and (2), on turning in COLUMN to the RIGHT and LEFT, and then paragraph 101, *a* (1) and *b*. (1) to march by the FLANK, as described here and below. Because life can't be easy.)

What about a shift to the RIGHT FLANK? If we use the logic in Figure 5, the GUIDE would have to dash all the way across the platoon front to take a position on the right.

But that's silly. What the guide does (either by command GUIDE LEFT!) or by SOP, is just stay in his position and let the platoon guide to his LEFT.

Guiding. So, why is the guide there at all? Simple. He keeps the platoon marching in a straight line. Only the guide has to worry about that, since everybody else is aligning on him. A guide learns to pick a point (a tree, the corner of a building, etc.; it just has to be visible and stationary; that is, not the gorgeous dame walking in front of post headquarters). Every time the platoon changes direction, the guide will have to pick a new point; but he learns how to do that.

The guide also has to have a steady, regulation pace. A regulation pace for the current day is 30 inches, 120 steps a minute. The guide is setting the pace, and has to get it just right or the rest of the platoon will falter.

What happens when the whole company is marching together? Easy: each platoon has its own guide, but the guide of the lead (or right) platoon is the GENERAL GUIDE, and everybody in the company guides on him.

All this takes practice. At parades and reviews there are other things the guide needs to know and do, but we'll save that for later. Practice this simple set of skills first. Do it whenever you march as a platoon so it is familiar. Close order drill depends on HABIT, almost muscle memory. If you have to think about what to do, you won't get it right.

GUIDE RIGHT!

"War is very simple, but in War the simplest things become very difficult." —Karl von Clausewitz

— Sgt. Drilldich

IMPROVING THE IMPRESSION

How A Gen-Y Guy Can Get Gunning with The Greatest Generation

By Jason Platzner

It is too often that on the living history field you see older men with a cigar dangling out of their mouths and an axe to grind toward the 'millennial' generation. Being part of that generation holds a certain stigma and though there are a plethora of younger reenactors, it goes without saying that many younger guys stick out like sore thumbs. Our fingers glued to the cellphone, our lack of military knowledge and discipline (for those that haven't served), and our general appearance can all rile up the older generations. With reenacting, it can be hard to get an impression to

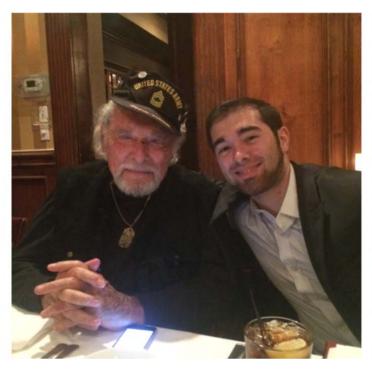


Me taking it easy in the 40's -- with a little practice, and not baseball.

come to life but it can be almost impossible for some to let go of their anachronisms and get in the boots of a soldier from 70+ years ago. Yet in my own experiences on the field and off, it comes almost naturally.

I am 25 years old, a Gen-Y'er (the term *millennial* in my opinion tends to have a negative connotation), from Westchester, New York. To give context to that statement (and to make you feel old), Jurassic Park was the highest grossing film the year of my birth, Bill Clinton had just been sworn into office in January, and the World Trade Center was attacked for the first time (I would be 8 the second time around). I grew up in the suburbs, with constant access to the internet, videogames, movies, and unlimited TV. I had a very comfortable upbringing due to the family real estate business and I never had to worry about money in the pocket or food on the table. I do not take this lightly, and it is all owed to my parents, grandparents, and great-grandparents who worked tirelessly their whole lives but you can see the stark contrast with World War II military men who grew up during the depression in an almost complete opposite world.

My connection to World War II came through my grandfather who fought with the 2nd Engineer Special Brigade in the Pacific. He told me everything that he remembered and often wouldn't leave out



the graphic details. I owe my dedication to history to him and his service, but I couldn't ever relate to how he lived. He was born in 1923 in the Bronx, to second generation European Jews who luckily had worked their whole lives and made decent livings, but that didn't last long with the stock market crash. He remembered everyone including himself being poor and hungry and he had to fight tooth and nail to get ahead in school, work, and life. In 1942, after brief stints in the Navy and Marine Corps, he enlisted at Grand Central Station in the Army for the duration of the war. Someone so close to me who gave me the motivation to break into the hobby, lived so differently that it was hard to even picture this was the same man that was raised in such arduous times.

I don't think I could ever be able to imagine growing up poor and hungry now let alone in the 1930s in New York City. I couldn't fathom the hardships of having to

Why I do what I do -- my grandfather today . . . fight your way through the streats to enlist in training that

fight your way through the streets to enlist in training that would break you physically and a war that broke you mentally. I can't understand why someone would sign up to be miserable and put on scratchy wools, tie annoying leggings, and shave your face raw everyday at the crack of dawn. Everyday life for

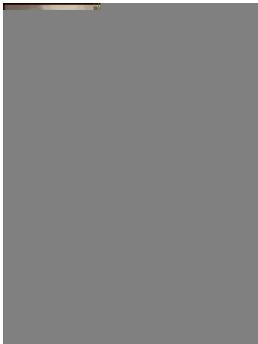
me is waking up at 8 AM, buzzing my bushy black beard, and driving to my office job where I sit at a computer most of the day. So why on earth would I pretend to be a sorry dogface during the worlds biggest and most dangerous conflict? A better question is how?

For my impression, I tend to relate to my normal everyday life and try to translate this in 1940s terms. For instance: my love for videogames turns into a love for poker and chess. My addiction to texting turns into writing letters home. I try to forget that I can't remember a world without internet and focus on how the Yankees are faring against the Cardinals without 'Joltin' Joe' in their ranks this season. I stop wondering about what is going on in the Facebook world and start worrying about sending part of my \$54 monthly PFC pay home. You start walking and talking like a GI from North of the Bronx, you start to feel the part on an interior level.

To shun technology altogether would be wrong, as everyone wants cool Facebook photos of their impression, and you know you just have to text your girlfriend back, etc. For me I tend not to think about it, and start thinking about stuff that worries me more like heat stroke, dehydration, and why the NCO is handing the shortest



... and in the Pacific in WWII.



My favorite Facebook photo.

By no means do I claim my impression is perfect and with all honesty, it never will be. I was born (to my chagrin sometimes) into a world of Gameboys and boy-bands and I am only a few years older than the college kids that now have safe spaces and didn't grow up with grunge. Yet putting the fine tuning on my impression and taking it to the next level really helps me let go of all of it and get into my role. It is best to remind yourself of how your relatives were during the time, and how they would act upon seeing you in your current impression. Would my grandfather tease me about my five

soldier from World War II correctly. It should all be taken seriously because if you don't desire the connection to these men then you most likely don't take the hobby for how it should be taken. Being a millennial places even more of that responsibility on reenactors as we look the part more than the older guys.

squad member from NY more equipment to carry because he is a Red Sox fan. It is absolutely permissible to do those things, but it won't make your impression feel real when

While I do use technology frequently in my 'civilian life', my break away from it is welcomed. I like to feel like a soldier in World War II, it is why we all started the hobby in the first place, a connection to someone in the past. If anyone is in the hobby for the bangs or the Saturday night booze fest, I think you need to find something else. I love getting trigger time and I'm almost always the first to the bottle the Saturday after the battle but I realize that when we take up the gear we take up a responsibility to imitate a



The Gen-Y'er's nemesis – Gameboy.

o'clock shadow? Would he scoff at my reproduction gear? They are questions that, like it or not, can affect your impressions for the better and get you in the mindset of constant corrections.

you do them.



Where did you grow up? What school did you attend before enlisting? Do you like Glenn Miller or is he overplayed? Three Stooges? Abbott and Costello? What brand of shaving cream you use? What beer do you drink? What movie did you last see?

You get the gist of it. It isn't entirely easy to shake off your persona, it may even be harder if you are from my generation or younger so why not take what you know and go from there? Start from building your impression on your own personality and you can also use details from your relatives. Once you familiarize yourself with how they felt and acted then you will be able to get into your impression. It isn't easy to put the phone down and let go of your online life (trust me!) but the payoff is worth it in the end. Being a millennial doesn't matter when you're cold and miserable and the adrenaline is pumping while you are looking at a foreign soldier shooting at you, it wouldn't have mattered then either.

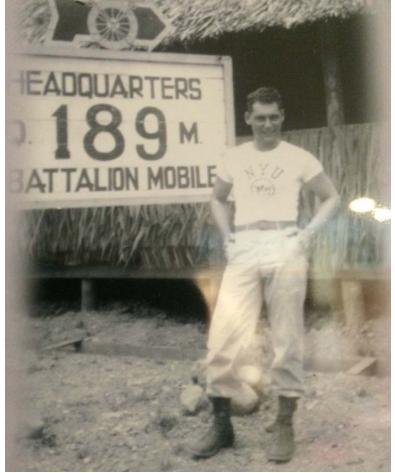
I am young and I look the part, but feeling and acting the part is what matters most. Plenty of younger guys overlook the small stuff in impressions



Ah, poker . . . ain't it great?

(sometimes the important stuff too) and expect their youth to get them by. "At least I am not old and fat" they would say, but many of the older guys remember the Greatest Generation and can relate much more easily to them than us. Reading up on the role will get you into the boots quickly, and though being tired, miserable, and bored sounds horrible remember that the men we are representing didn't have a choice in the matter and we do.

It's that simple. And that hard. Don't take the easy way out and do it wrong. Do it right.



Here's to you, Grampa – Greatest Grampa Ever.

THE ART OF WAR

Quite a few things happened long ago that influences World War II and military thought. In this issue, Robert Mosher discusses the contributions of the Chinese military thinker Sun Tzu.

Sun Tzu: How to Read and Use Terrain



The Chinese military thinker Sun Tzu wrote his treatise, *The Art of War*, about 500 B.C., but his masterwork has only been available to read in English since the early 1900's. Major Thomas R. Phillips has edited a volume entitled *Roots of Strategy, a Collection of Military Classics* that incorporates the translation prepared by Lionel Giles, M.A., Assistant in the Department of Oriental Books and Manuscripts in the British Museum. *Roots of Strategy* was published in both London and New York in 1943. The other classic military thinkers represented in this volume are Vegetius, Marshal de Saxe, Frederick the Great, and Napoleon.

Written in an age before the discovery of gunpowder or the internal combustion engine, Sun Tzu's observations remain of value today because he focuses not on weapons but on men, who remain fundamentally unchanged.

Our focus in this article is on what Sun Tzu had to say about terrain and the varieties of ground that may come to be your battlefield. In addition to discussing good terrain, bad terrain, and the ways in which to adapt to them, he also writes about what your enemy's choice of ground might tell you about his intentions. Remember that the enemy may equally detect your intentions from your choices of terrain.

Sun Tzu identifies ten varieties of ground:

1. *Dispersive ground* – "One's own territory is dispersive ground, so called because the soldiers, being near home and anxious to see their wives and children, are likely to seize the opportunity afforded by a battle and scatter in every direction... On dispersive ground, therefore, inspire your men with unity of purpose... fight not."

2. *Facile ground* – "When one has penetrated into hostile territory, but to no great distances, it is facile ground... On facile ground halt not; see that there is close connection between all parts of the army."

3. *Contentious ground* – "Ground that is of great advantage to either side is contentious ground. On contentious ground, attack not; hurry up your rear guard."

4. *Open ground* – "Ground on which either side has liberty of movement is open ground... On open, accessible ground, do not try to block your enemy's way; keep a vigilant eye on your defenses, fearing a surprise attack; beat the enemy in occupying the raised and sunny spots, and carefully guard your line of supplies. Then you will be able to fight with advantage... In dry level country, take up an easily accessible position with rising ground to your right and on your rear, so that danger may be in front, and safety lie behind."

5. *Ground of intersecting highways* – "Ground that forms the key to three contiguous states, with means of communication on all four sides so that he who occupies it first has most of the empire at his command, is ground of intersecting highways... On ground of intersecting highways, consolidate your alliances and join hands with your allies."

6. *Serious ground* – "When an army has penetrated into the heart of a hostile country, leaving a number of fortified cities in its rear, it is serious ground... On serious ground, gather in plunder and ensure a continuous stream of supplies."

7. *Difficult ground* – "Mountain forests, rugged steeps, marshes and fens—all country that is hard to traverse; this is difficult ground… In difficult ground, keep pushing along on the road and steadily on the march."

8. *Hemmed in ground* – "Ground reached through narrow gorges, and from which we can only retire by torturous paths, so that a small number of the enemy would suffice to crush a large body of men, or there are enemy strongholds in our rear and narrow passes in front, this is hemmed-in ground... On hemmed in ground, resort to stratagem; block any way of retreat to make it seem that you mean to defend the position, whereas your real intention is to burst suddenly through the enemy's lines. From a position of this sort, if the enemy is unprepared, you may sally forth and defeat him. But if the enemy is prepared for your coming, and you fail to defeat him, then return being impossible, disaster will ensue.

- a. "With regard to the narrow passes, if you can occupy them first, let them be strongly garrisoned and await the advent of the enemy. Should the enemy forestall you in occupying a pass, do not go after him if the pass is fully garrisoned, but only if it is weakly garrisoned.
- b. "With regard to precipitous heights, if you precede your adversary, occupy the raised and sunny spots, and there wait for him to come up. If the enemy has occupied precipitous heights before you, do not follow him, but retreat and try to entice him away.
- c. "Country in which there are precipitous cliffs with torrents running between, deep natural hollows, confined places, tangled thickets, quagmires, and crevasses, should not be approached or else left with all possible speed. While we keep away from such places, we should get the enemy to approach them; while we face them, we should let the enemy have them on his rear.

d. "In crossing salt marshes, your sole concern should be to get over them quickly, without any delay, because the lack of fresh water, the poor quality of the herbage, and last but not least, because they are low, flat, and exposed to attack. If forced to fight in a salt marsh, you should have water and grass near you, and get your back to a clump of trees.

9. Desperate Ground – "Ground where there is no place of refuge at all and on which we can only be saved from destruction by fighting without delay, this is 'desperate ground'... On desperate ground, fight; proclaim to your soldiers the hopelessness of saving their lives. The only chance of life lies in giving up all hope of it."

10. *Entangling Ground* – "If it can be abandoned but is hard to reoccupy it is called entangling ground."

Sun Tzu offered further thoughts on issues of terrain in more general military operations:

"When encamping the army, pass quickly over the mountains, and keep in the neighborhood of valleys."

"All armies prefer high ground to low, and sunny places to dark. Low ground is not only damp and unhealthy but also disadvantageous for fighting. Camp in high places facing the sun. Not on high hills, but on knolls or hillocks elevated about the surrounding country. When you come to a hill or a bank, occupy the sunny side, with the slope to your right rear. It will be better for your soldiers and utilize the natural advantages of the ground."

"Do not climb heights in order to fight. If in the neighborhood of your camp there should be any hilly country, ponds surrounded by aquatic grass, hollow basins filled with reeds, or woods with thick undergrowth, they must be carefully routed out and searched; for those are places where men in ambush or insidious spies are likely to be lurking."

"After crossing a river, get far away from it. When an invading army crosses a river in its onward march, do not advance to meet it midstream. It will be best to let half the army get across, and then deliver your attack."

"When in consequence of heavy rains up-country, a river which you wish to ford is swollen and flecked with foam, wait until it subsides."

"When the enemy is close at hand and remains quiet, he is relying on the natural strength of his position."

"When he keeps aloof and tries to provoke a battle, he is anxious for the other side to advance. If his place of encampment is easy of access, he is tendering a bait."