



Installing track extensions on an M4, called grousers or duckbills

# Duckbills



Extensions or “Variants” not included in the Second Edition†

#1 February 2, 2022.

## Initiative

A simple Tractics **variant** for the Classic Turn Sequence is to have *all units* of Side A move followed by *all units* of Side B. Going first, the side with the burden of attack would usually be side A with B in position to react.

One can then imagine situations where there is an imbalance of initiative where one side has better training and experience to get the “jump” on the enemy *or* hold back when best. Since Tractics abhors 100% certainty, a die roll can best adjudicate this. So here’s a suggested **variant** to award the first mover’s status: each rolls a die and high roller\* goes first.

Make this even more interesting the **variant** is to give each side two dice with a different number of sides. Then each side simultaneously chooses **which die** and rolls it. So, here are some examples:

- A. A high initiative side has a D20 & D4
- B. A low initiative side has a D2 (D4 divided by 2 rounded down) and D6.
- C. An impetuous side with nearly the same number of sides, a D10 & D12.
- D. Or other combinations in between.
- E. A high initiative side attacked by surprise might start with both dice having few sides but get a “die upgrade”, one having more sides on a certain turn.

\*The die with more sides wins ties or if the same die, the side with the higher number of total sides between their two dice. If still equal, roll again.

†More free Tractics play aids at [wargamecampaign.wordpress.com/category/tractics/](http://wargamecampaign.wordpress.com/category/tractics/)

## Flukes

Have you read of unusual situations in tanker memoirs? They may happen rarely but when they do it advances the narrative and become memorable game situations.

An example from history: “tank commander Lieutenant Raymond Fleig and his battle with a Panther in the Hürtgen Forest. The round that Fleig preemptively had loaded in the gun was high-explosive and did no damage. The frightened Panther crew bailed out but soon re-entered their tank. Realizing his mistake, Fleig’s gunner hurriedly turned his turret to allow his loader to retrieve an armor-piercing round from the sponson and shot the now-alerted and angry Panther in the side” ([link](https://www.reddit.com/r/AskHistorians/comments/4kdbx6/tanks_what_exactly_is_a_wet_ammunition_rack_are_the/))

[https://www.reddit.com/r/AskHistorians/comments/4kdbx6/tanks\\_what\\_exactly\\_is\\_a\\_wet\\_ammunition\\_rack\\_are\\_the/](https://www.reddit.com/r/AskHistorians/comments/4kdbx6/tanks_what_exactly_is_a_wet_ammunition_rack_are_the/)

So, this example is a fluke involving a poorly trained and inexperienced crew. While flukes make the game memorable, one doesn’t want them to happen “too often” so the **variant** is that on a D20 roll of 20 on **Hit Location** (Turret Ring), this requires a second D20 roll and if 20 again. instead of Turret Ring roll a third time:

**Modified Die Roll:** D6 (less than 1 is a 1; greater than 6 is a 6)

1. Abandon the tank even if no damage\*
2. Injured crew member, randomize which
3. Check morale
4. Dazed 1D6/2 turn(s), no evacuation
5. Out of Ammo, must go get more, 1D20/3 turns
6. Personal storage destroyed (no effect)

**Modifiers** (cumulative):

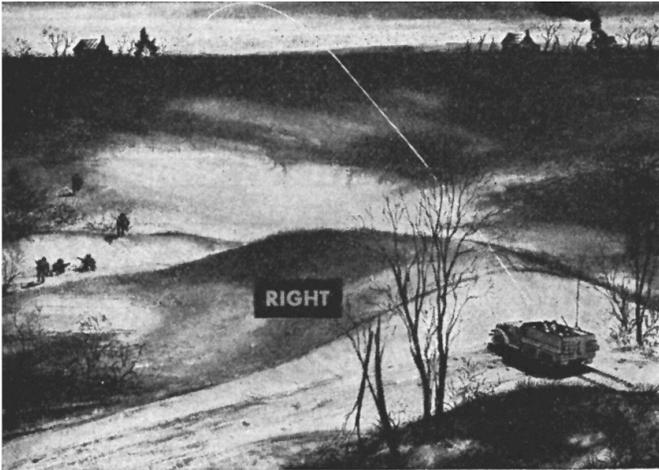
-2 HE hit, -1 Green, +1 Veteran, +2 Elite

\*May re-enter armor upon morale Rallying (or in Modified edition Morale rules, “Act Freely”).

**Judge:** remember to leave the players in suspense when they wouldn’t know the result from observation; could be a KO’d tank with wounded tankers. You can add your own fluke options to increase the number of results from the 6 above to 10 or 20.

While one could consider this over-engineering a rare event, some of us think this is part of the challenge.





②. Right.

Figure 14. Do not call for smoke on targets that can be destroyed by high explosives. Infantry mortars carry only a small percentage of smoke ammunition.

Above from Field Manual FM17-40 Armored Infantry Company page 59

## Ammo Loads

Tractics never included per-vehicle ammo limitations beyond the recommendation that certain rounds be limited or not carried by most (smoke particularly). Indeed, the US Army doctrine avoided putting smoke on anything that could be destroyed by bombarding it.

We think ammo tracking is one of the least popular rules in wargaming. Players don't like to be bookkeepers!

Even if you would like that feature, there is more to this than just producing a list of the total number of shells carried and the mix of types that evolved by year (as described in the Tractics pull-out, **Weapons & Shells**).

However, knowing my fellow gaming grognards, perhaps you have already researched this. You are invited to submit your ammo load list variant to the Duckbills editor, *Bill Owen*.

In the meantime, we leave you with the following list of 16 allied vehicles' ammo capacities, 10 of which are Sherman tanks. List courtesy of *TheShermanTank.com*

Production time and model	Main Gun rounds	.30 Caliber ammo	.50 Caliber ammo	.45 caliber ammo	Hand grenades	2 inch smoke mortar ammo	wet or dry	Small hatch or large hull	75mm or 76mm turret
M3 Grant early	50, 75mm, 178, 37mm	9200	n/a	1200	12	N/A	Dry	N/A	37mm
T6 prototype	75, 75mm rounds	10,000	n/a	1200	12	N/A	dry	small	75mm
M4A1 Early	90, 75mm rounds	4750	300	600	12	N/A	Dry	small	75mm
M4A4 early	97, 75mm rounds	4750	300	600	12	N/A	Dry	small	75mm
Sherman Vc	77, 17pdr rounds	5000	1170	440	9		27	dry	75mm modified
M4 Mid Production	97, 75mm rounds	4750	300	600	12		12	Dry	small
M4A2 Late	97, 75mm rounds	4750	300	600	12		12	Dry	Large
M4A3 (75)W late Sherman IC Composite late	104, 75mm rounds	6250	600	900	12		18	Wet	Large
M4A1 (76)W late	74, 17pdr rounds	5000	1170	440	9		27	dry	large
M4A2 (76)W late	71, 76mm rounds	6250	600	900	12		12	Wet	Large
M4A3 (76)W Late	71, 76mm rounds	6250	600	900	12		14	Wet	Large
M4A3 (76)W Late	71, 76mm rounds	6250	600	900	12		18	Wet	Large
M4A3 105 Late	66, 105mm rounds	4000	600	900	112		15	Dry	Large
M4A3E2 Jumbo	104, 75mm rounds	6250	600	900	12		18	Wet	Large
M10 GMC Mid	54, 3inch AT rounds	30 *	300	600	22*****	N/A		Dry	Large
M36 GMC late	47, 90mm rounds	450 **	1000	N/A	12		4 ****	Dry	Large

\* 30 rounds in bandoleers for the M1903 rifle  
 \*\* these were .30 carbine rounds, for the five M1 Carbines issued with the M36  
 \*\*\*\* These were smoke pots HC M1  
 \*\*\*\*\*10 of these were rifle grenades

This Chart was made for the the Sherman tank site, please feel free to use it, but give my site a shout out, [www.theshermantank.com](http://www.theshermantank.com)

## Quick Reactions

The simultaneous fire in the Classic Turn Sequence is nice and simple but seems a little unlikely that all shells would hit at the same time! While I think that the net negative of that is less than it may seem, that doesn't stop me from thinking about how to do it differently. One could roll a die for each firer with highest roller(s) firing first. If a lower roll is eliminated before it gets to fire, then *c'est la guerre*.

Then one could assign dice with more sides to better trained and more experienced troops. One could do so for ambushes or those with minimal turret rotation required. Note that I got to thinking about this from THW's **Nuts!** ruleset's In Sight reaction test.

## FAQ

Q. Why the name Duckbills?

A. That's the GI's nickname for Track Extensions on Shermans so, **Trac(tics) Extensions**; get it!

Q. Where are the German 88mm guns?

A. They are classed as 90; see the discussion on pages 19-20.



## Cogitation Phase



Future articles we are thinking about. Why weren't these included in the rulebook? Because every time we looked at a "Final Draft," we thought of "one more thing." Or several things. Knowing we had Duckbills to present more details gave us chance to finish the second edition in this decade with "enough" already.

1. Hull Down, as it relates to gun depression.
2. Suspension Damage examples
3. French Cupolas, whirling "dervishes"
4. More on HEAT; it's complicated actually.
5. Repair
6. Spaced Armor
7. Artillery Doctrine
8. Naval Guns
9. Tank armor and ammunition.

## Errata

1. Pull-Out #11 (also on page 66) has a "3" on the 45° Slope Angle when it should be "4" like the 45° Qtr in the next column.
2. The 2nd Runner on the Platoon HQ table (page 11) is blank. The same data applies as for the 1st Runner.

3. Examples of Play, page 160, Turn Sequence Phase 1: delete the asterisk (\*) at the end of the 3rd sentence.
4. The modern weapon, Am, LAW, on the Infantry Weapons chart should be American LAW.

## Radio Net

How could one make realistic radio net guidelines for handling spotting and calling fire? One can see how Mike Reese worked on this one day to explain it to me (page 5). This being for just for a slice of time in 1944 and for certain units, I realized the magnitude of the challenge. So, I demurred and said "All righty then. Let's save that idea for another time."

Even though I have no variant, I want to let you know that some ideas don't even survive their arrival to the first playtest. Which is a good time to point out that play-testing your variant a few times is a good idea. Another thing that's easy to overlook is how the variant might interact with other rules and how your unwritten assumptions might guide you but puzzle me. So, falling back on the journalistic 5W1H: think of **who, what, when, where, why, and how.**

Note that the USA had a more developed radio and different artillery doctrine than other nations.

More from Mike on the yellow highlighted note on the page at right:

**Combat Command Task Forces** were larger. The above would be a sub-unit to a CC TF. The Combat Command TF could be:

A TF would consist of a HQ (Tank), one tank battalion (-1 Medium Coy), one armored infantry company, a reconnaissance platoon, an AA platoon (AA half-tracks), a TD battery (from attached TD Coy) and



A TF would consist of a HQ (AIB), one Armored Infantry Battalion (-1 Armored Inf Coy), 1 Medium Tank Coy, a reconnaissance platoon, an AA platoon, a TD battery.

Artillery was either held at Division level with all three battalions supporting the combat commands as needed or one artillery battalion would be assigned as direct support to each combat command. The former massed artillery was used if the combat commands were within artillery range, the latter direct support if the combat commands would be too far apart for centralized artillery to provide them support.

Interestingly the exact location of the Recon BN appears to be ahead of the division and not attached. Each battalion had a recon element of its own, plus a mortar battery and gun platoon. The AA Battalion and TD battalion could be kept together, assigned to guard or support specific elements or locations, or attached at company level to the combat commands. The TD battalion had a large number of recon elements, a company at BN and a section per battery.

No idea exactly of how the Lt Tank Coy in each tank battalion was distributed. Suspect used as another recon element. I have read it was often attached to the armored infantry as support. I could see it going with the HQ and two platoons to the TF that was infantry heavy while the third platoon remained as a platoon in the tank heavy TF.

**Armored Division 1943** (not 2nd or 3rd & 1st in Italy although latter changed to this in 1944)

1. HQ Coy
2. 2 Combat Command HQ (A&B)  
*continued on page 6*
3. 1 Combat Command (CC) Section (C with 8 men.  
Use in combat required transfer from other HQ in Div)
4. 3xTank BN (TB) each HQ, Services, 3xMed & 1xLt Tank Coy

5. 3xArmored Inf BN (AIB) HQ, Services, and 3xArmored Inf Coy.
6. 3xArtillery BN each HQ, Services, and 3 batteries of 6 each M7 HMC
7. Recon BN with HQ, Services Troops, 4 Cav Sqdn (Coy), Lt Tank Coy, M8 HMC battery
8. Engineer BN with HQ, Services, 3 x Engineer Coy.
9. AA BN (attached) HQ, Services, 3x AA Platoons (M15, M16 AA half-tracks)
10. TD BN (attached) HQ, Services, Recon Coy, 3 x TD Coy (M18, M10, or M36)
11. 1 Tk BN and 1 AIB and 1 Artillery BN with attachments from the Recon, Engr, AA and TD BN (roughly a Coy each) make up a Combat Command.

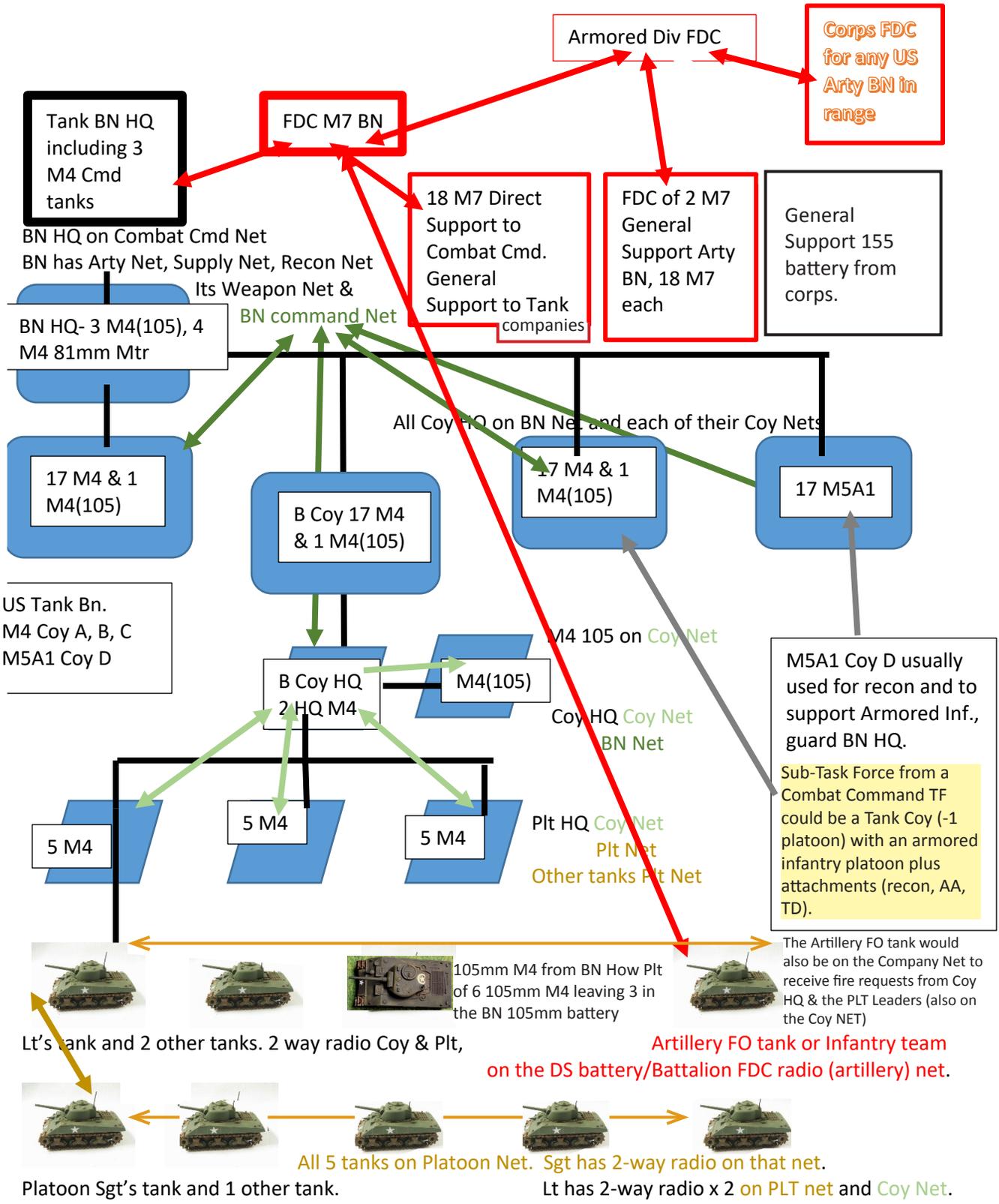
#### **CCA, CCB, CCR.**

Within the CC the commander would form Task Forces (usually named after the Cmdr).

The CC could form three TF each one tank and one armored infantry company, a Lt Tank Plt, a battery of GMC, a platoon of Recon, an AA SP battery, and an attached M7 Artillery Battery of 6 guns. HQ would likely be the tank

CC CO could modify the strength of each task force or make more than two. Above is a SOP break out. Losses, terrain, mission, enemy, could all change the composition of a TF.





↔ Radio communication 2 way

→ Radio communications 1 way



# The Scoop from the OCG

Note: Mike's moniker is Old Cavalry Guy; below, him in 1972.

## Clarification: Out of Command, pg. 27 'd' 2nd bullet

It may not be clear here but a squad always has to have an order change rolled for if the order is issued by the Squad Leader.



BUT, if the Platoon Leader or Plt Sgt or higher ranking leader is within 2" of the Squad leader and issues a new order to the squad then you don't have to roll to change the order. "Sgt, get your men moving. Take that hill!" in a loud voice by a Platoon Sgt or a Captain provides more incentive.

## Clarification to Orders, lower right, pg. 28:

If the tanks were being run by a separate player—a "tanker" then I would not be doing his tank order arrows. He would. My orders to him would be to support my attack on the Gasthaus and the hills in C4 and D3/4. I would provide him a squad of infantry to support his tanks under his orders.

The tanker would issue his own orders on his map and those would be copied to the Platoon Leader's map - likely by one arrow showing the tank's advance route.

Note how this is actually different from my drawing the tank's and attached squad's attack route. At a higher level a company commander would consult with the tankers on how the tanks can support the company's mission. U.S. and British orders.

Russians did it differently with the battalion given its orders and the battalion commander giving his orders to his company commanders who would brief their

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tankers. Any infantry would be told which vehicles to climb on.

Germans generally assigned one of the officers as overall commander, often by rank, sometimes by experience. An NCO known for his leadership and experience might run a platoon night patrol instead of an officer cadet or officer.

Germans generally had one platoon minimum commanded by an NCO rather than an officer (due partly to shortages of officers after 1941 and partly, I suspect, assignment as training to be sent to officer school.)



Mike in West German army surplus hat

## Your Variant Here

What is a Tractics variant? A new, simplified, complex or changed rule that you think adds realism or excitement in game-play. While **these are not approved rules**, they are options you might want to consider after playing the basic game several times.

You are invited to **submit your Tractics variant**, and when published, **you will get your name in print!** Send to the Duckbills editor, *Bill Owen*. If he doesn't respond within two days, fill in the *Contact* page on our *CombatRules.com* website. T'anks a lot!



# "A Skirmish Game." Or is it?

Variant by Dale Bley

I have been involved in the play testing and development of Tractics since the late 1960's and early 1970's. Almost every Saturday Mike Reese, Gary Gygax, myself and others would gather at Gary's house in Lake Geneva, Wisconsin to play test Tractics on Gary's sand table.

During those times we did not have a vast selection of models to choose from. ROCO Minitanks and plastic Airfix figures pretty much completed the options. We never imagined using anything but single figures on a 1:1 ratio which pretty much limited us to about a platoon of soldiers per side. The thought of basing several figures on a stand was never brought up. Since the Tractics infantry rules were a bit complex, having a large number of figures involved really slowed down a game.

Several years ago, Mike and I worked on an alternate set of infantry rules that used based figures with less complexity. I have used these rules with several companies per side and they work quite well. My 15mm figures are based on Flames of War size stands [not because I play FoW] and I simply use two stands to represent a squad or section and one stand for a team. Here are the rules as I currently use them:

The intent of these rules is to replace the original infantry fire section in the Classic Tractics. These rules should be used when figures are mounted on stands, used to represent squads, sections, or teams.

**Hard Cover:** target unit is in a building, dug-in, behind solid walls, hedgerows, or firing from an AFV or behind an AFV. **Soft Cover:** target unit is in woods, bushes, or behind soft skins.

**Roll to hit:** (1D20)

Firer	4"	8"	20"	40"	60+"
SMG Team	9	4	-	-	-
Rifle Team	7	5	1	-	-
LMG Bow/ Pintle MG	10	8	6	2	-
MMG/HMG/ Co-axial MG	10	12	10	4	2
Light Mortar	-	4	1	-	-

**Modifiers:** Range 1" or less +2, Team contains belt-fed LMG +2, Assault Rifle Squad +2, Stationary infantry target -2, Firing unit suppressed -2, Target in: soft cover -4, hard cover -6.

## Roll for each hit (1D10)

Firer:	Rifle	MG/ SMG	Light Mortar*	Inf AT Wpn
Die Roll				
1	-	-	-	-
2	-	-	S	-
3	-	S	S	-
4	S	S	S	-
5	S	S	KO	-
6	S	S	KO	S
7	S	S	KO	S
8	S	S	KO	S
9	KO	KO	KO	S
10	KO	KO	KO	S

\*Or Flamethrower

**Modifiers:** 2" or less +2

S=Target suppressed. No move on following turn but may fire with modifier. S is removed after full turn of suppression. KO=Target Team is destroyed

## Optional gun HE fire use:

- 37mm or less use Inf AT Wpn chart after scoring an HE hit.
- 38mm-75mm use Rifle table.
- 76mm-105mm use MG/SMG table.
- 106mm+ use Lt Mortar/Flame table.

## Notes:

1. If an LMG team is firing make sure you use the LMG Team table on the Chance to hit chart. Use the belt-fed bonus if the LMG team has a belt fed weapon.



US Browning Automatic Rifles do not count as LMG.

2. The 2" range modifier is representative of infantry using grenades at close range.
3. The stationary infantry target modifier represents the target being prone.
4. The Suppressed result represents a unit that has come under enough fire to force the men prone and seek available cover. This is general *pinning* fire.
5. The Knocked-Out result represents that the target has taken moderate to heavy casualties, has a substantial negative morale effect and is no longer combat effective. It does not necessarily mean that all of the unit members have been killed or wounded.

**Editor's note:** Dale's original variant was based on mostly *squad* stands not teams. But Mike adjusted that. Note how the second-step after hit, the suppressed/KO roll is a bit like a saving throw for the defender. Makes me wonder why couldn't one couldn't have modifiers by Unit Quality? So one guy's variant becomes yours as you tweak it.

## Parting Shot

Here is a series of diagrams from a World War II era US Army field manual about field exercises, *Training in Combat Zone* from FM17-40



Figure 3. Preparation of a field exercise.



Figure 4. Conduct of a field exercise.

