

# The Saga of the M16 in Vietnam (part 1)

by Dick Culver

The following story is one that I tell with some trepidation, since my experience(s) with the "Matty Mattel Mouse Guns" were not pleasant ones. In this time and place far separated from the grim reality of kill or be killed, the bitter memories of the "little black rifle that wouldn't shoot" have started blending into the mists of long forgotten firefights. Some of the bitterness of those days of long ago will no doubt color the story somewhat, but in order for the reader to understand the story from the perspective of those of us who experienced the frustration, this is probably unavoidable. There seemed to be a callous disregard for the lives and well being of those individuals who willingly fought and often died using a seriously flawed rifle. This is their story then, for those who went in harm's way with the XM16E1, and most of all, for those who didn't come back. May their sacrifices never be forgotten.



Like most things, the reality of being armed with an ineffective weapon was of little import to those who were not risking their lives on a daily basis. By the time the problem was finally fixed, many friends and comrades had been awarded "*the white cross*", or in the verbiage of the time, had "*bought the farm*". Many lives could have been saved if a few individuals in "decision making billets" had possessed the intestinal fortitude to correct the problem. ...And the problem was "correctable" – all that was necessary was the application of a bit of guts and common sense. Aircraft that are suspected of being flawed are immediately grounded until a problem has been corrected, or a fix has been found. And so it was with the Marines' CH-46 Helicopter during the same time frame. The tail pylons started rather abruptly separating themselves from the bird with catastrophic results. The CH-46 was quite rightly grounded and sent back to Okinawa until the problem was isolated and fixed. For some unexplained reason the same rationale was not applied to a rifle that was costing lives on a daily basis. Perhaps the "*Wingies Union*" was stronger than the "*Grunt's Union*" – whatever the reason, dead is dead, and the Grunts were not amused! Unfortunately, doing the "right thing" would have cost individuals in positions of authority considerable embarrassment – something that no one was willing to risk. The "air types" could blame Boeing, but many of the decisions concerning the M16 were made within the "military industrial complex", making it more difficult to pin Colt to the wall. Individuals within the Military who had given their "yea verily" to the project would have found themselves looking for another job.

Rather than bore you with cold statistics and hard facts to start, I will tell the story as it happened and as I remember it. Making allowances for the dimming of the memory after 32 years, the entire saga still stands in my consciousness as if it happened only yesterday – things like that are hard to forget.

Our outfit, the Second Battalion, Third Marine Regiment, was selected to assume the duty as one of the two Battalions filling the job as the "Special Landing Force". This evolution consisted of a quick trip out of Vietnam to the peacetime home of the 3<sup>rd</sup> Marine Division

(Okinawa), for a refurbishment of web gear, worn out equipment, and the fleshing out of a casualty riddled Battalion with fresh replacements. This slight respite from the "free fire zone" afforded new replacements an opportunity to gain experience and training with their new organization. The SLF was in fact a BLT (Battalion Landing Team) with enough attachments to make it into a sort of "bobtailed Regiment". In addition to the standard four line (infantry) companies, and an H&S Company (Headquarters & Service), we also had attached: a Helicopter Squadron, an Artillery Battery, a Recon Platoon, an Engineer Platoon, Amtracs (Amphibious Tractors/Landing Vehicles) and various other supporting elements. At that time, an (unreinforced) Infantry Battalion (before being festooned with the above attachments) consisted of approximately 1100 men. 1/3 (1st Battalion, 3rd Marine Regiment) was to be designated as SLF Alpha, and 2/3 was to make up SLF Bravo.

The SLF's job was to act as a sort of "Super Sparrow-hawk" (cavalry to the rescue stuff) to reinforce any organization actively engaged with the enemy who wound up in a "feces sandwich"... when the brass sent in the SLF, someone was already in big trouble! Knowing that you were headed into a "hot LZ" (landing zone) on a rather repeated basis made for a very exciting tour. The normal SLF tour of duty was usually scheduled for a duration of 6 weeks. The outgoing SLF Battalion was then returned to its parent Division (1<sup>st</sup> or 3<sup>rd</sup>), and a new Battalion took over the rather thrilling duty as "The I Corps' Fire Brigade". It was an ingenious scheme, as it allowed the Marines to refurbish their battalions occasionally, and allowed time (albeit relatively short), to train new replacements out of the line of fire. Normally, the SLF tour was anticipated by the selected Battalions with some enthusiasm, as it was *supposed* to include one short R&R for the Battalion in Subic Bay, prior to the SLF's reassignment to the RVN. Needless to say, no one in 2/3 ever saw Subic, except as a casualty. *Murphy*, always taking a hand in things, stirred the pot in such a way that the refurbishment and replacement of battalions on the SLF was curtailed after the vicious "Hill Fights" around Khe Sanh in April of '67. 2/3 (and their sister battalion, 1/3) had taken on the best that the NVA could throw at them and whipped them hands down, but it was not without cost. Many a dead or dying Marine was found with a cleaning rod shoved down the bore of the little black rifle...

The constant pressure on I Corps starting that Spring left 2/3 manning the ramparts as one of the two SLFs for a period of nine months (versus the normal 6 weeks)! When the smoke finally settled, 2/3 had taken over 800 casualties and those who survived walked away with a sigh of relief. By August of '67, my company (Hotel, 2/3) had only 5 Marines without at least one Purple Heart, and I was not one of them.

Technically, the SLFs were supposed to return to the LPH (and other supporting shipping) after a battle, lick their wounds, get cleaned up, draw more ammunition and standby for the next mission.

By way of explanation to those who have not been in the Corps or associated with the Navy, "LPH" stands for "Landing Platform - Helicopter". The LPH is in fact nothing more than a small aircraft carrier, primarily designed to launch helicopters for a Marine (or perhaps Army) landing force. The supporting shipping usually consisted of an LSD, ("Landing Ship - Dock" designed to launch Amphibian Tractors for a seaborne surface assault), an LST ("Landing Ship - Tank", self explanatory) and an APA (assault transport to house additional troops). All together, they made up the seaborne vehicles for a rather formidable assault force.

*Murphy* again took a hand, and out of those fateful 9 months, we spent approximately 12 days aboard our assigned shipping. The rest of the time we got "chopped op-con"<sup>1</sup> to one of the Infantry Regiments ashore (transferred to, and under their operational control) - after all, we were those "pogues" who lived aboard ship and had it easy, were they not? Everyone figured that we were well rested and ready to go. The Regiments ashore, of course, took full advantage of such obviously fresh troops, and threw us into the very "choicest" assignments, to allow their units a breather – we were eventually referred to as the "*day on - stay on battalion*", and brother, they weren't kidding!

It was in the arena outlined above that I got my first introduction to the XM16E1. When 2/3 arrived on Okinawa to refit and train for their duties as SLF Bravo, they were already licking their wounds. The Battalion had been ambushed on a march between two hill masses, losing their Commanding Officer and Sergeant Major, along with numerous other individuals. While they were hardly demoralized, they possessed a particular affection for their CO and Sgt.Maj. and were chomping at the bit to return to the RVN to avenge the Battalion's losses. Shortly after 2/3's arrival on Okinawa, the Battalion learned that it was scheduled to draw a new "experimental rifle"... the XM16E1. 2/3 dutifully turned in their M14s to draw a curious little plastic thing that drew lots of snickers and comments from the old timers (we still had a few WWII vets in those days). The Battalion was given an orientation lecture in the Camp Schwab Base Theater by some ordnance folks, sent to the range to fire some sighting in rounds, and pronounced properly prepared for combat... little did they know!

The Battalion was told that they would now be able to carry 400 rounds ashore on each operation, and were now armed with an accurate, hard hitting rifle that would tear a man's arm off if you hit him. The lecture was impressive. The interesting thing is that the Marines WANTED to like the little rifle – it was light, cute, and supposedly extremely effective! Marines are always in favor of a weapon that will dismember their enemy more efficiently and more effectively. The Marines of 2/3 left Okinawa READY to go try this "jack the giant killer" on the NVA or Cong (they didn't care which, as long as it made a good fight!). However, there were several flies in the ointment. First, they only had one cleaning rod per rifle and no replacements – sounds reasonable, but events were to prove this assumption wrong. The second problem was that ordnance had only enough magazines to issue three (3) per rifle, and they were "twenty rounders". The thirty rounders in those days were only being used by the Special Forces – Robert "Strange" McNamara, (The Secretary of Defense), had decreed that the 20 round magazines were more cost effective than the 30 round magazines (this from the guy who was responsible for marketing the Edsel!); We were now armed with the latest in weaponry, and able to carry 400 rounds ashore. Our confidence level would probably have been considerably higher if we had been issued more than three 20 round Magazines per gun. We were promised more of course, and as it turned out, it became true, but only because we were able to pick up those left behind by the casualties. The long and the short of this lesson, however, was that they were trying to get the M16 into action well before adequate supplies were available to support the weapon, even if it had been functioning properly. Politics is indeed a strange game!

Ammunition was issued in "white" or "brown" twenty (20) round boxes. Bandoleers with "clipped ammunition" in ten round "strippers" had not yet made their way to South East Asia. While this would have been a handicap under normal circumstances, it turned out to be a "non-problem"... A full 50% of the rifles wouldn't shoot semi-automatically! The unfortunate individuals armed with the malfunctioning rifles couldn't shoot enough rounds to need more

than the initial three magazines at any rate! Three hundred and forty rounds in 20 round cardboard boxes were stowed in our packs, with the idea that during a firefight, a man who had run dry, could roll over to his buddy and take ammunition out of his pack and his buddy could do the same. As it turned out, this rarely figured into the equation.

The first clue (for 2/3) that something was wrong came during the battle of Hill 881 North... but *all* the Hill Fights at Khe Sanh in April '67 came up the same – dead Marines with cleaning rods stuck down the barrel of their M16s to punch out cartridge cases that refused to extract. At first, we considered that the experiences encountered during the Hill Fights might have constituted an isolated incident, but as experience was to prove, alas, 'twas not so! The regulations of the time required that all such malfunctions were to be documented, and reported to Ordnance Maintenance/Division Ordnance. The 2<sup>nd</sup> Battalion, 3<sup>rd</sup> Regiment of Marines must have filled a 6X6 truck with malfunction reports attempting to stay within the administrative guidelines. We submitted the required reports and waited – we wanted the problem *FIXED* – *NOW*, and we were willing to play the ordnance paperwork game if that was what it took to correct the situation!

Spring stretched into summer, and summer gave way to fall, with reams of paperwork having been sent out to the Ordnance Maintenance Folks on the "Rock" (Okinawa) and to the ordnance folks in Vietnam. We outlined, in great detail, the failure of the much vaunted M16 to perform as advertised... It simply *wasn't* working! It seemed that if your rifle *would* shoot, it would shoot under almost all conditions (if clean), but if it *wouldn't*, no amount of coaxing would help. *All* of the M16s seemed to be extraordinarily sensitive to carbon build-up, even if the rifle was one that would shoot when freshly cleaned. This meant that in a long and heated firefight, it was possible to have a much larger percentage of rifles "out of action" than the 50% that didn't want to shoot at all. Something was seriously amiss! A rifle that refuses to shoot during a firefight, is unsuitable as a combat implement. The NVA was obviously not gonna' allow us a "time out" while we held a cleaning session! My first clue to the solution to the problem came from talking to the Battalion Armorer. He had an M16 that worked under almost all conditions. I asked him what he had done to it, and he replied that he had taken a ¼" drill, attached a couple of sections of cleaning rod to it, and put some "crocus cloth" through the slotted tip (like a patch) and run it into the chamber and turned the drill motor on. He "horsed" the drill a bit and apparently relieved the chamber dimensions just enough to ensure positive functioning. This was a sort of precursor to the "chrome plated chamber fix" that would be applied in days to come.

FSR (Force Service Regiment – which also acts as a home for the small arms repair folks), sent a trouble shooting team to visit us aboard the LPH shortly after the "Hill Fights" to try and pin down the problem. As soon as the ordnance team arrived, they made it clear that *THEY* were already well informed (meaning they'd already made up their minds) concerning our problem and had decided (without so much as a question to us) that *WE* as a Battalion were responsible for a bad rap being given to a marvelous little rifle! The lads in the rear had decided that *WE* were simply not keeping our rifles clean, and if we weren't such inattentive and unmotivated "oafs" being led by incompetents, we wouldn't *have* such a problem. Needless to say, the hackles stood up on the back of our necks. "Them wuz *fightin'* words!" ...And we wuz peaceable folks (well sorta' anyway)! To say that they had misread the problem is an understatement!

Certainly from a personal standpoint, they were full of "un-reprocessed prunes". My background in small arms went back as far as my conscious memory, and when I "screwed

up" with a firearm of any kind as a kid, my Daddy left knots on my head and welts on my "stern-sheets"! During this time frame, I had just finished firing on the USMC Rifle Team (in 1965 – this was now 1967) and to say that I had high standards of weapons cleanliness for my rifle company is an extreme understatement. If the rifles had been clean enough to eat off of before the visit from the FSR clowns, rifle cleanliness moved up a notch to "autoclaved" as a result of the insults they were bandying about! We literally fired thousands of test rounds over the fantail (the stern) of the LPH. Each of the issued rifles was fired, cleaned and then fired again! ...Same story, about 50% of the rifles were reliable and 50% were "non-shooters". We cleaned the rifles between strings of fire (and *this* test was conducted in the more or less "sterile" conditions encountered in a shipboard environment), with the same results! NOW we were getting worried.

The malfunction reports continued to pour into the rear echelon papermills without any tangible results. On one notable occasion, a stalwart Marine crept around in a flanking movement on an enemy machine gun position. He assumed a quick kneeling position to get a clear shot over the sawgrass, and "did for" the hapless NVA gunner! His second shot aimed for the assistant gunner never came, as his rifle jammed and the assistant gunner avenged his dead comrade by splattering the Marine's gray matter all over the stock of the Matty Mattel Special. After the fight, we sent his little black rifle to Division Intelligence with a complete report on the events (without removing the brain matter from the stock). We waited with baited breath for the response to this one, but alas to no avail! Still no action! Normally aggressive Marines were understandably getting a bit edgy about being assigned to listening posts or outposts. Ambushes were, more likely than not, to result in Marine casualties. We started stealing and or trading the cute little black rifle for M14s. Many rear echelon troops (usually known as *REMFs*) were more than willing to trade their old fashioned M14s for a little lightweight rifle that was easy to carry, (the M16s in those days were reserved for the frontline troops). Supply and demand prevailed, and what we couldn't trade, we appropriated (a polite military term for outright theft!). The Engineer troops assigned to us for support (mine clearing, demolition, and setting up helicopter landing zones) were still armed with the M14 (not being infantry). The Engineers became some of the most popular troops in the Battalion and made up a substantial part of our base of fire. I was always partial to Engineers anyway, and these guys cemented our relations in a big time way – good people those Engineers – and *THEY* were armed with a *REAL* rifle!

It finally became apparent that no one was gonna' come to our rescue! Our reports were falling on deaf ears, and our Battalion Commander was more than a little annoyed. The bayonet had become more popular than before and indeed enjoyed a resurgence of usefulness, until in the throes of hand to hand combat one of the lads gave the enemy a vertical butt stroke that resulted in his holding a "two part" Matty Mattel... Captured AK 47s began to show up in increasing numbers, but they were a double edged sword. The AK 47 had a rather distinctive sound when fired, and would occasionally result in the Marine "wielding" the foreign piece, receiving a bit of "friendly incoming"! This was in addition to the fact that ammo re-supply for the AK was a problem. After a fire fight, the battalion S-4 (supply & logistics) frowned on requests for a couple of thousand rounds of 7.62 X 39...

Things were getting desperate... Our Commandant at the time, General Wallace M. Green, when queried about the rumors filtering back from the front-line troops, contacted the Marine Corps ordnance people and asked them what the problem was. The Ordnance Brass "bleated" the school solution and told the "*Commandanche*" that the problem stemmed from poor weapons maintenance and a lack of leadership! The Commandant then appeared on TV

and announced to all the world that the only thing wrong with the M16 was there weren't enough of them! How RIGHT he was! It took 20 rifles to get off 20 rounds! We were enraged! – and we began to plot! Never let it be said that the average Marine isn't cunning, if not terribly intelligent.

This is probably a good place to describe the actual malfunction that was prevalent with the "mouse gun" – although there were variations the problem was essentially as follows:

- 1.) The rifle would be loaded normally, i.e., a loaded magazine would be inserted and the bolt would be allowed to go forward, causing a round to be chambered.
- 2.) The trigger would allow the hammer to fall, with the rifle firing the first round in the expected fashion. Then the problem began...
- 3.) The bolt would start to the rear, but the cartridge case would remain in the chamber. There were two variations to this one, one in which the extractor would "jump" the rim, and one where the extractor would "tear through" the rim. Either version left the case in the chamber.
- 4.) The bolt would start forward stripping the next round from the top of the magazine.
- 5.) Since the chamber was already occupied by the cartridge that had just been fired, the newly fed round would shove the bullet tip firmly into the stuck case effectively jamming the rifle.

This "jam" could be cleared by:

- a.) Removing the magazine from the rifle, pulling the bolt to the rear, and locking it in this position by depressing the bolt catch.
- b.) If the newly fed live round did not automatically fall free (it often did), you had to shake the rifle to allow the round to fall free of the magazine well.
- c.) A cleaning rod was then inserted in the muzzle and the "stuck case" was driven out of the chamber.
- d.) The magazine was then reinserted and locked into the magazine well, and the bolt allowed to go forward by depressing the bolt catch. The bolt would again strip a round from the magazine and reload the chamber.
- e.) This round could then be fired and the entire cycle started all over again.

Essentially we had been reduced to a *"magazine fed, air cooled, single shot, muzzle ejecting shoulder weapon"* shooting an inferior cartridge. How lucky can you get?

Mike Chervenak, my XO (executive officer) was a man of rare moral fiber. Not only was Mike one hell of a good Marine, but he cared for and about our Marines... and the M16 was continuing to get them killed. On one of the very few days we spent aboard the LPH preparing for our next thrilling adventure, Mike came to see me in my quarters.

"Skipper" said Mike, "what the heck are we gonna' do about this miserable little rifle?"

"Well Mike," I replied, "I guess we're doing about all that can be done – I'm about out of options! All we can hope for is that ordnance'll find a fix!"

Mike being smarter than the average bear, drug his toe in the dirt and asked, "Skipper, do I have your permission to write a letter to my congressman?"

"Well Mike," I said, "I can't tell you *NOT* to write such a letter, it's a free country!"

"Well Skipper," said Mike, "what would YOU do?"

Uh oh – now I'm trapped! "Well," I told him, "I'd probably write a letter to the Commandant!"

"But Skipper," Mike says, "you *KNOW* he won't ever get to see it!"

"Wrong," sez I, "all you have to do is put 'copy to: Senator Zlotz' (or whoever) at the bottom of the letter, and military paranoia will kick in! The staff will be afraid *NOT* to show it to him, lest he get a call from an outraged Congressman!"

"Yeah," said Mike, "but I'll bet that nothing will be done about it even if he *DOES* see it!"

"Well, you're probably right," I tell him, "but it might be worth a try!?"

Mike, somewhat discouraged at this point, allows as how it'll probably be more effective to send one to his Representative. I agree without overtly suggesting that he do so. He turns to go, but just as he reaches the Water Tight Door (WTD), he turns around with a slight grin and says "Skipper, would YOU help me write it?"

Hummm... the rest is history. Mercifully we did a workmanlike job on the letter, and simply explained the problem (much as above) and made note that it took precious seconds to clear a jammed rifle that an Infantryman doesn't have in a firefight. We were also careful not to call names or point fingers, and that's all that saved us in the light of things to come! I'm not too sure who Mike sent the letter to, but a copy of it WAS published in that "Communist Rag", *The Washington Post*!

Mike was on R&R when the thunder came rolling in. He received a "person to person" phone call from "Wally" (Wallace M. Green, the Commandant, who hangs his hat in Washington, D.C.) in Vietnam! Alas, Mike was not there to take the call! The brass came to me of course, asking where Mike had gone when he left on R&R. Since Mike had earned his R&R in spades, and I didn't want to screw it up for him (knowing the problem would still be there when he returned). I did the only honorable thing I could and lied! Hee, hee, hee... Mike finished his R&R in good order and without harassment.

When they discovered that I had aided and abetted Mike in his endeavors, the feces struck the ventilation! That letter kicked off FIVE simultaneous investigations; one from the Third Marine Division, one from the 9<sup>th</sup> Amphibious Brigade, one from the 3<sup>rd</sup> Marine Regiment, one from the 2<sup>nd</sup> Battalion, 3<sup>rd</sup> Marine Regiment (us) and last but not least a Congressional Investigation led by a Congressman from Louisiana named "Speedy O. Long" (yes, that was really his name!). During the investigations, the Battalion hid me so far back in

the "*ding toolies*" that it was necessary to pipe in air and sunlight. Mike and I had become the "pariahs" in the Marine Corps in general, and the 3<sup>rd</sup> Marine Division in particular. However...

At long last people started doing something overt for a change. We were pulling an operation down in the 1<sup>st</sup> Marine Division AO, south of Da Nang (AO stands for "area of operations") – the SLF was essentially a "hired gun" and went wherever there was hate and discontent). The Corps "*flew-in*" a C-130 with 400 brand new XM16E1 rifles along with a Marine Warrant Officer considered to be an expert in the small arms ordnance field. The ordnance Warrant was an old friend of mine who had been the Marine Representative to Cadillac Gauge when they were building the "Stoner 63" System. He had been a Staff Sergeant at the time and we used to sit on my living room floor and disassemble the Stoner System over an occasional beer (well, maybe *several* beers) when the Marine Corps was running its Stoner tests in at Camp Lejeune. Now, I tell myself, we'll get some results, Bob is a pretty savvy guy! ...Wrong again "*gopher breath*"! – Bob Baker (the Marine Warrant Officer), had suddenly and inexplicably switched to (what we thought of as) the enemy camp!

In a private and rather heated conversation with Bob, he allowed as how the problem was that we weren't keeping them clean enough!

"BS." I said, "Bob, you know me better than that!"

"Nope," he said, "the M16s will work if they're clean!"

Seeing that I had reached a dead end, it was time to try a different approach. Another Captain/Company Commander and I (he having just as much a case of the "\$%#^" over the "16" as the rest of us) watched as WO Baker utilized his \$800 ultra powerful chamber scope to examine the M16 rifle chambers of a line of troops brought in out of the lines for evaluation of the condition of their rifles.

This marvelous chamber scope was supposedly powerful enough to make any imperfections in the chamber look like the surface of the moon. The first man stepped up to the front of the line and handed over his rifle. Bob sticks the chamber scope in the chamber, shakes his head and throws the old rifle in a pile that was to grow materially in the next couple of hours. The Marine was then issued one of the new rifles brought in on the C-130. Watching the lad with his "brandie, brand new" rifle stride off. Bob Bogard (the other Company Commander) and I chased him down (out of sight of course). We talked him out of his rifle, threw it into the dirt, kicked a little over it, picked it up and dusted it carefully off (to make it look like a "used" rifle). We then waited awhile until a number of folks had gone through the line and "number 1's" face had faded from WO Baker's recent memory. We put the trooper back in line and hid and waited. When (Warrant Officer) Bob stuck his chamber scope into the new rifle, he again shook his head and threw the new rifle on the pile of discards! Gotcha! When we pointed out to Bob what we'd done, he went orbital (not a word to come into general use until '69 of course)! He accused us of not taking his efforts seriously, and trying to make him look bad – not hard to do at this point! While we had outraged the brass, a seed of doubt had been planted, and it grew!

Back at the Command Post, a rather short civilian gentleman of Asian extraction wearing a Colt Detective Special on his belt, strode over to see me. I recognized him as a Mr. Ito, the Colt Representative that had flown in with the 400 rifles.



"Howdy," he sez, "my name is Ito!"

"I know," I said, "and my name is Culver."

"Yes, I know," sez Ito, and at that point, I figured that my fanny was truly gonna' be grass.

My instincts in this case were wrong.

Mr. Ito turned out to be a heck of a nice gentleman and told me all sorts of revealing stories. Among other things, he told me that Colt had offered to chrome plate the bores and chambers of the M16s for the sum of \$1.25 each, but that Robert "S" McNamara had vetoed it as being non cost effective. Mr. Ito sent me a "care package" when I got home, guess what it contained? A double handful of Colt M16 tie tacks<sup>2</sup>. Grrrrr...

Ultimately, Colt wound up chrome plating the chambers (and later the bores) of the M16s, thus reducing the coefficient of friction between the cartridge case (not necessarily a good thing, incidentally) and the chamber. The bolt then began battering the frame from the excessive velocity in its rearward movement, and they again gave the "*patient*" with a brain tumor an aspirin tablet as a "*fix*" – they simply made the buffer group heavier! But the real story had yet to be told. The story eventually leaked in bits and pieces but was never made public in the headlines it deserved. The rifle was eventually fixed, but at what a price... Much like the guy unjustly accused in print - when the real culprit is found, the headlines don't shout out his innocence, a retraction is usually printed in extra small type on the last page. The guys who died for this folly can never be brought back, and the people responsible who fought the problem by placing the blame where it wouldn't get *their* fingers dirty came away clean.

Somewhat later, a new Battalion Commander, who hadn't fought with us in the old days when the rifle was at its worst, inherited 2/3 in time to preside over the ensuing hate and discontent. He called me in during the ongoing investigations, and chided me about my stance on the rifle.

When I stood firm, he asked me, "Culver, just what would be *YOUR* solution?"

"Easy." I said, "it's only been 9 months since we turned in our M14s, all that's necessary is for us to draw the 14s again until ordnance can work the bugs out of this little piece of #\$\$@&!"

"Unfortunately," said the Colonel, "it's not as simple as that!"

"Unfortunately," sez I, "it's *EXACTLY* that simple! What you mean is that it's not '*politically*' that simple!"

I was dismissed without another word.

The aftermath? The rifle was eventually fixed of course, but at great cost in life and suffering. Unfortunately, "fixing" the M16 left us saddled with a service rifle that shoots a cartridge not powerful enough to be used on anything larger than groundhogs according to most state hunting laws. The latest version is almost as heavy as the M14 without any of the

14's redeeming features. In retrospect, the cost of saving reputations and enhancing corporate well being was high... *too* high. Mike and I both spent an extra year in grade and Mike decided not to stay on in the Marine Corps even though he was a regular officer, and a damned fine one at that! That was one of the larger tragedies, as Mike was one of the truly good guys. Men of principle are more rare than the Hope Diamond in real life, and he was one of those. After the decorations had settled on the scene in SE Asia, they decided to keep me around and I was too stubborn to quit. The Corps, with what can only be described as a rather macabre sense of humor, sent me to Naval Post Graduate School in Monterey, California and made an Ordnance Engineer out of my somewhat "frayed" fanny. Life is often rife with seemingly contradictory incidents. Most of these give truth to the statement of George Burns in the movie, "*Oh God*" where he describes God as a comedian playing to an audience that's afraid to laugh! Amen...

In "Part 2" I'll tell you what the problems *REALLY* were and why so many were fighting to keep the lid on the situation. The real story is not one to give you great confidence in our leadership or human nature. War and politics truly make strange bedfellows!

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### End Notes:

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<sup>1</sup> "Chopped Op-Con" literally meant detached from the operational control of the parent unit, in this case, the 9<sup>th</sup> Marine Amphibious Brigade, to another operational unit (usually a regiment in the Area of Operations [AO] of whatever Divisional [1<sup>st</sup> Marine Division or 3<sup>rd</sup> Marine Division] area you were operating in).

<sup>2</sup> In all fairness to Mr. Ito, he also sent me a match barrel for my .45 Government Model, and some great .45 Auto and Single Action Army tie tacks. He also sent me a whole XM177E2 (a sort of predecessor to the current M4 Carbine), which was appropriated by the Battalion Commander as his personal weapon (I had asked Mr. Ito if it was possible to buy the short barrel group and a collapsible stock to put on my M16 – he sent the whole thing!). The last I heard, the rifle had been passed down from Battalion Commander to Battalion Commander as a sort of badge of office. I never felt any rancor in losing my prize, I figure it went for a good cause. Mr. Ito was truly a jewel among men!

# The Saga of the M16 in Viet Nam (Part 2)

By Dick Culver

In Part 1, I covered the saga of the M16 from a standpoint of personal remembrances. The trials and tribulations of the average grunt carrying "the little black rifle" in the field were especially frustrating because we were swallowing the party line totally. As far as I knew, my Corps had never lied to me before, and I could see no reason why they would. As it turned out, they too were being lied to, but too many in high places had put their "chop" on the "give us the M16 now" requests. Human nature dictates that very few people in high places like to back down, apparently even when lives are at stake (as long as it isn't their life of course). Marines, too, tend to "link arms" and assume a "we'll take care of our own" attitude and I assumed that this was simply an extension of this prevalent attitude.

One statement by an outraged Colonel on the Division Staff finally changed my mind on the "we'll bite the bullet and fix this thing ourselves" attitude. When Mike was called up to the Division Headquarters over the infamous letter published in *The Washington Post*, this Colonel asked Mike, "Lieutenant, where's your loyalty to the Marine Corps?" (asked in a tone that indicated that the Colonel considered Mike to be a disloyal SOB). Mike turned the tables and asked the Colonel if they had lied to them in Basic School (the USMC Basic Officer's Course)?

"What are you talking about?" asked the Colonel.

Mike replied, "we were told in Basic School that loyalty in the Corps went down as well as up! Does this mean that loyalty is only to be expected from the bottom up? The men of our company have been told from Boot Camp that the Corps takes care its own, and that's what I'm trying to do. I've followed all the rules and regulations concerning malfunction reporting, with absolutely no results other than feedback that indicated that I was lying in my reports. I only stepped out of bounds when it became obvious that careers were more important than the lives of our men. Obviously the average Marine is expendable if political correctness appears to be at risk!"

The Colonel dropped the subject.

While I (mercifully) didn't get in on the above interview, the word spread like wildfire on Mike's return. I took it rather personally when it appeared that careers and reputations were more important than saving lives, and it became a sort of self imposed holy cause on my part to get at the truth. Some of the story below is a matter of personal opinion, and I have tried to identify that portion rather than simply make my point(s) by tall tales and innuendo.

All the above having been said, here are the distilled results of what I found during the ensuing years. I have not attempted to make this a textbook, but a "what went wrong and why" primer. If you want more detailed information there are whole books out there on the subject. Many of the below listed facts are drawn from available documentation, and some are simply the result of personal experience. As I pointed out in Part 1, the Marine Corps, with a rather warped sense of humor, sent me to graduate school to become an ordnance engineer. While a degree doesn't necessarily make you an expert in anything (except on

paper), people tend to listen more readily when you wave a degree at them. One of more interesting things about this one is that, having grown up around weaponry all my life, I knew virtually everything about small arms ordnance that I know now, before I went to school. I wrote an eight page statement on the problems (or at least my observations on the problems) with the M16 during the investigations of 1967, one copy of which was sent back to the 9<sup>th</sup> Marine Amphibious Brigade on Okinawa. A friend of mine stationed at the Brigade Headquarters, was sitting in the office when they read my statement. Since this individual was a long time friend, he listened with more than average interest when they got to mine. The Colonel reportedly read my contribution and tossed it in the trash can with the comment, "just who in the hell does he think he is? – some kinda' expert?" From the time I heard of that one, I swore that I would find the truth, and here are the results of my efforts. Unfortunately not everything is documentable, but the information fits into the jigsaw puzzle rather well. Here we will deal with the problems and misconceptions surrounding the M16 Rifle and attempt to show what went wrong. The tale is rather twisted, but bear with me on this.

### **Background (The Armory System of Weapons Development):**

You must understand that for many years there had been a faction of the American Public that was not happy with our "Armory System" of weapons selection. Rightly or wrongly, there had always been a feeling from the American public that the "small time" arms designer could not get a fair shake when it came to a new ordnance concept. The attitude also prevailed that any rifle or rifle design submitted to the Army had little or no chance of getting fairly evaluated, due to the "Not Invented Here" attitude of Springfield Armory. Although probably not true, that feeling was in the air when the M1 Rifle was selected as our new service rifle. The M1 had a myriad of nickel-dime problems with the first production models, such as the infamous 7<sup>th</sup> round stoppage, the rear sight that refused to hold its elevation and other problems. Melvin M. Johnson stepped in with his recoil operated rifle that tested very well indeed against the Garand, but was "picked to pieces" on little things, with the Army Ordnance folks pointing out the obvious superiority of the M1. The Marines weren't so sure. One contingent under Capt. (later Brig. Gen.) George Van Orden, the founder of the Marine Corps Ordnance School, were proponents of the Johnson Rifle, while the test conducted by the Marines on the West Coast held the M1 to be the best of the semi-autos, but chose to go with the M1903 over both of them.

While I think the Johnson was a fascinating rifle, I'm personally damn glad that they picked the Garand. The Armory system actually made very few mistakes, but the public is a fickle mistress. I am reminded of the apocryphal inventor (as an example) who always claims that HE had the final answer to the "gasoline mileage" breakthrough, but the Government (or, the big Oil Companies, or whoever) came along and bought his patent (or paid him not to market the invention, etc.). At any rate, you get the picture, every inventor is convinced that HE had the answer, but no one would listen (or look, or whatever...). I'm not saying that some of this isn't true, but a large portion is pure hogwash.

The reason that many of the inventors were turned down by the lads at Springfield Armory was that they (Springfield) had already tried many of the ideas and found them wanting. There are very few "new" concepts in weapons design, once you get past the basic operating systems (manual, gas operated and recoil operated), although there are variations of incorporating them in a design (the short stroke piston, long versus short recoil, etc.). Most of these neophyte inventors wanted the government to take their ideas and run with them (spending Government money on R&D of course), and when the Government didn't bite, the

legend was perpetuated. Generally speaking, inventors who had developed a working model of a new design were welcomed at the Armory, and the weapon given a fair shake (John Garand falls roughly into that category). If one of these inventors happened to be working for a large corporation (such as Eugene Stoner and ArmaLite/Fairchild Aircraft), things changed a bit. The large corporation(s) had enough money to develop a new system on their own. Once major money was involved, (with a certain amount of ego or true dedication to their new idea cranked into the equation), the organization and/or the inventor tended to get irate if the Government didn't jump on their new "gizmo" with both feet, kiss them on both cheeks and ask them why they didn't come forward sooner! When this didn't happen, the organization would often complain to their local Congressman or Senator, claiming Armory favoritism. Such things can tie things up in court or force the Government to try their latest gadget by greasing the appropriate palms, appealing to sympathetic Congressmen, or airing their grievances in a news hungry press. Since many constituents had stock in such corporations and more often than not distrusted the Government, political pressure was brought to bear that would not have been possible in a government procurement system; and therein lay the problem.

I am certainly not downplaying Eugene Stoner's genius in the arms designing field, but he was playing hardball in an arena with considerably more interest in profit margins than operational suitability. Eugene was indeed a talented gun designer, and perhaps rivaled John Browning in some respects, but every time he came out with a new design, Fairchild Aircraft would have more money invested in his concepts, and of course THEY had stockholders. His initial efforts were on the M16's big brother, the AR-10. The AR-10 was essentially the little 16 with steroids. It did in fact use a man sized cartridge (the 7.62 NATO), but to put it politely, it was a "beast" to shoot (I've tried one of the original versions)! It would supposedly float with about 1" of the buttstock protruding from the water if thrown in a swimming pool (you'll have to take their word on that one, as I never tried it). The Government had been experimenting with a smaller service round for some time along with several other ideas such as the SPIW, and multiple projectile 7.62 rounds, but never with any real success. With the 5.56 (.223), they came upon a saleable product.

### **Enter the Air Force:**

While initially, the U.S. Army wasn't buying, the Air Force thought it would be a marvelous replacement for the aging .30 Carbine. Over many objections, the Air Force (with the support of General Curtis LeMay) finally obtained permission to buy a number of the little AR-15s as an airfield perimeter defense weapon. This was probably a task worthy of the "mouse gun", but would hardly qualify the weapon as a suitable rifle for the front line Infantryman.

### **Comparative Cartridge Ballistics:**

In order to appreciate what the infantryman was giving up with the 5.56 mm, it is necessary to look at the specifications of the two cartridges and compare them to other rivals of the time – AND compare the results with the pipsqueak .22 Long Rifle:

**7.62 NATO (M14 & M60 Machine-gun):**

**Bullet Weight = 150 grains**

**Nominal Muzzle Velocity = approximately 2700 fps.**

**Muzzle Energy = 2427 ft. Lbs.**

**Residual Energy at 500 yds. = 1576 ft. lbs.**

**5.56 NATO (XM16E1):**

**Bullet Weight = 55 grains**

**Nominal Muzzle Velocity = approximately 3185 fps**

**Muzzle Energy = 1239 ft. lbs.**

**Residual Energy at 500 yds. = 252 ft. lbs.**

**.22 Long Rifle (Generic .22 Rifle):**

**Bullet Weight = 40 grains**

**Nominal Muzzle Velocity = 1335 fps. (high velocity ctg.)**

**Muzzle Energy = 158 ft. lbs**

**Residual Energy at 500 yds. = ?**

**7.62 X 39 (AK-47):**

**Bullet Weight = 125 grains**

**Nominal Muzzle Velocity = 2400 fps.**

**Muzzle Energy = 1598 ft. lbs.**

**Residual Energy at 500 yds. = 414 ft. lbs.**

**.30 Carbine:**

**Bullet Weight = 110 grains**

**Nominal Muzzle Velocity = approximately 2000 fps.**

**Muzzle Energy = 976 ft. lbs.**

**Residual Energy at 500 yds. = 182 ft. lbs.**

If you will notice, these figures list the velocity and energy both at the muzzle and for the maximum effective range of U.S. (shoulder) Small Arms, (generally figured to be approximately 500 yards or 460 meters). The proponents of the AR-15/M16 attempted to change the maximum effective range of the U.S. Service Rifle to 300 yds. as a more realistic figure. What they were really saying, was that the 500 yd. figure made the AR-15 look bad in comparison to the M-14, but the Army decided to stand fast. The 500 yard figure had been taken from the combat experience(s) of a number of wars. Experience and first hand observation are hard to refute, unless of course, the figures of a conceived scenario better suit your purposes... and not all wars can be guaranteed to be fought in the jungles of Southeast Asia. Even for the mathematically challenged, it should be obvious to the most casual observer that the 5.56mm isn't in the same league as the 7.62mm NATO.

If you compare the muzzle energy of the .22 LR to the terminal energy of the 5.56mm NATO at 500 yds., you will find a difference of only 94 ft. lbs. Not exactly what I would

consider a definitive difference. Sure we are talking muzzle energy compared to the residual energy at 500 yards, but the 5.56mm was (is) touted to have a maximum effective of 500 yards. Dream on! Accuracy, interestingly enough, has never been the problem. No one has ever complained about the accuracy of the "Mouse Gun" (after the change from a 1-14 barrel twist to a 1-12). Initially at least, the problem was the reliability of the issued weapon. Quite frankly, in 1967 I used to dream of a Marine Rifle Company armed with M1903 Springfields! I would have laid money that such an outfit could have taken Hanoi if given the mission. Nay, 'twas not *accuracy* that was the problem...

At that same 500 yards, there is a difference of 1324 ft. lbs. of energy remaining for the 7.62mm in excess of the energy of the 5.56 mm. The 5.56 is down to a puny 252 ft. lbs. versus 1576 ft. lbs. for the 7.62 mm. Only the .30 Carbine is outclassed by the 5.56 mm at 500 yards, and it (the .30 Carbine) was designed as a replacement for the pistol cartridge. No one in their wildest imagination would place the .30 Carbine's effective range in excess of 300 yards. Yet even at that range the Carbine still retains 273 ft. lbs. of energy which exceeds the 5.56 mm's remaining energy at its advertised maximum effective range by 21 ft.lbs. Folks, something is wrong here! To the best of my knowledge, there is not a single state in the United States that will allow the 5.56mm NATO round to be used as a hunting cartridge for a deer sized animal (a good sized deer will go up to 150+ pounds, or roughly human sized). Why in their remotest dreams the military feels that a cartridge that is acknowledged to be suitable only for varmints is a viable anti-personnel round, is beyond my comprehension.

Penetration was not the long suit of the 5.56mm either. The common "Grunt" soon became aware that the "mousegun round" often ricocheted off of bamboo thickets, and had little effect on earthwork emplacements. The U.S. Ordnance manuals list the penetration of the .30-'06 as M2 ball as 36" of oak at 200 yds. Since the ballistics of the ball 7.62mm round are essentially the same, I can only assume that the 7.62 will do the same although I have never tried this personally. I DO know that a .30-'06 AP round will punch a power transmission pole at 200 yards like Swiss Cheese. I've been waiting for some bad guy to hide behind a telephone pole for years! The initial demonstrating teams for the 5.56mm loved to show the effect of the "mouse gun round" on a concrete block wall at 25 yards when the rifle was fired in the full automatic mode. The effect was truly awesome! I asked the demonstrating ordnance folks to try the same stunt at 200 yards. They grinned and said that such a demonstration would not give the desired impression of power. In other words they had the demonstrations rigged in favor of the 5.56mm! I wonder how many feet of oak the 5.56mm will penetrate at 200 yds?

The rather miserable penetrating power of the mouse gun was proven to me in spades during a rifle requalification firing session on Okinawa in 1973. CWO-4 Marine Gunner Dave Luke (a former U.S. Service Rifle Champion) was supervising the butt detail. The rifle range at Camp Hansen is built between two mountains along the long axis of what can only be termed a wind tunnel. The wind on the Rock would often come whistling down that cut in the mountains giving a headwind of 25 mph. So it was on the day in question. The Marine Corps, being frugal, does not use fresh targets for each day's firing, reserving the virgin targets for qualification day (usually Friday). As a result, we used multiple target faces (repair centers) on our targets during our practice sessions, held to the target with a rather disgusting paste of roughly the same consistency of flour and water. This stuff dries hard, and after several days, the thickness of repair centers becomes relatively thick. Since this was a Wednesday, we had

a fair thickness of repair centers on the targets. I was stationed on the firing line when I got a call from Gunner Luke in the butts.

"Hey Major" said the Gunner, "I've got something down here you need to see!"

"What's that Gunner," I replied.

"Major, we've got bullets sticking in the target faces!" said Luke.

"The hell you say Gunner?" sez I, "wait one, I'll be right there!"

I called a cease fire and headed for the butts in the safety vehicle. When I got there I could hardly believe my eyes! Sure enough, there were a number of projectiles that hadn't completely penetrated the multiple target faces at 500 yards. For a moment, I considered that the Gunner might just be pulling my chain, and inserting spent projectiles in the bullet holes for a joke. Two things changed my mind. First, while Dave Luke has a sense of humor, it doesn't run to things like that, and secondly all the projectiles stuck in the target faces showed no evidence of having struck anything more solid than a thick piece of paper. Not only that, but Dave was a professional range officer and we were conducting practice for a Battalion requalification program. Any undue delays would have reflected unfavorably on Dave's ability and he was not one to have allowed anything to interfere with his duties unless he considered it extremely important.

While I had never been a proponent of the mouse gun's, even I would not have thought that the M16 was this underpowered! You can now understand why I am somewhat skeptical of the claims of an 800 yard maximum range for the new M16A2. An additional 8 grains of bullet weight is incapable of making a major difference in penetration, and at 800 yards - ? Right, and my name's Mickey Mouse! No wonder the folks developing the M16 wanted the maximum effective range reset to 300 yards!

### **The "Meat Ax" Effect:**

Yes you say, but what about that fantastic "meat ax" effect that the 5.56mm round has on flesh? Won't the 5.56 mm tear a man's arm or head off if it hits him? In a word, no! This is a myth that has been perpetuated since the AR-15/M16's earliest days, and here is as good a place as any to lay this claim to rest! The original .223/5.56mm was derived from the little .222 Remington or at best the .223 Remington Magnum Cartridges. Now the .222 Remington and .222 Remington Magnum originally used a 40 or 45 grain bullet and a 1-14 barrel twist. Ballistic engineers found that 55 grain bullet pushed the stability of the 1-14 twist to the absolute limit in terms of stability. The initial rounds loaded for the 5.56mm were marginally ballistically stable, and tended to tumble if anything got in its way.

This was apparently especially true of flesh. A 55 grain bullet striking flesh when only stabilized with a 1-14 twist, tumbled with devastating results, but it had a problem – it was only marginally accurate. Now it's possible to have a bullet that is known to tumble, but if it won't reliably hit the target at the maximum effective range you are in big trouble. After the initial test results (including some in Southeast Asia) were in, it was apparent that this WAS an effective round (assuming that a tumbling bullet was employed)! However, it also became obvious that this rifle wasn't exactly a "tack driver" in terms of accuracy. Air Force cold



weather tests in January 1963 showed definite "bullet wobble" around the projectile's rotational axis causing unacceptable accuracy. As any good ordnance folks would do, they tightened the twist to 1-12 and the accuracy improved. The order to change the barrel twist was signed by Robert S. McNamara on the 26<sup>th</sup> of July 1963. The accuracy immediately improved, but the "magic bullet" quit tumbling! All of a sudden, we had a reasonably accurate round with a bullet that was essentially ineffective in terms of cleaving flesh with the much vaunted "meat ax effect". The round was now reasonably accurate as stated, but much underpowered for its designed maximum effective range of 500 yds.

### **The Demise of Springfield Armory:**

Unfortunately for the America, one lone solitary event was to doom the Armory system of weapons procurement. Robert McNamara had come to power with JFK in 1961. McNamara made no secret of the fact that he considered the Armory system to be wasteful and hidebound. He made a clean sweep of the former Pentagon ordnance experts and replaced them with Ph.D.s and private sector cronies, most of who had no clue as to the difference between a muzzle and a trigger. Many of these gentlemen were former members of the Rand Corporation "Think Tank". My experience with such "experts" has never been one to give me a warm fuzzy feeling as to their real world expertise. Robert McNamara made no bones about his disapproval of Springfield Armory, and would have liked nothing better than to close it down. The only thing saving Springfield was the fact that it resided squarely in President Kennedy's home state of Massachusetts, and was essentially under his protection much as was the Boston Navy Yard. One fateful day in November 1963 changed all that, and from that moment on, Springfield Armory was living on borrowed time.

### **The (deliberate?) Perpetuation of a Misconception:**

Following the official change of barrel twist rate, a bit of disinformation (perhaps better classified as marginal dishonesty) kicked in! The individuals attempting to sell the 5.56mm as the new service cartridge had lost one of their major selling points! We were now armed with a weapon that would poke knitting needle sized holes in the enemy, but without the so-called "devastating effect" of the bullets fired in the 1-14 tubes. Since the individuals in love with the mouse gun concept were in the "selling" mode, they were somewhat reluctant to inform the powers-that-be (and the American Public) that we were no longer dealing with a "devastating" round. This is of course understandable considering human nature, but still a bit "iffy" in terms of honest evaluation of the effectiveness of the prospective cartridge for our primary "go to war gun".

Unfortunately, a sizeable portion of the American Public still believes in the "meat ax" effect of the M16. As a quick anecdotal story, while I was in the early throes of learning to live with the little black rifle, I went to our Battalion surgeons, and hospital corpsmen with a question.

"Had they seen anything during their treatment of wounds that would indicate that the 5.56mm hit harder than any other round?"

I received a negative answer, but they promised to start investigating more closely. A daily check during periods of intense combat always turned up the same answer. None of the devastating effects described by the M16's most ardent proponents, were being encountered

by our medical folks. We were not privy to the above technical information in the Spring and Summer of 1967, of course. Having been told of the rifle's extreme effectiveness before the Battalion left Okinawa to assume the duty as SLF Bravo, I was beginning to have personal doubts about the Brass' evaluation of Colt's latest toy.

### **Quick Fixes by the Troops:**

I could have lived without being armed with a "meat ax", but I as a professional infantryman was loath to have a rifle that would not repeatedly "go bang" when called upon to do so. We tried everything we could think of to remedy the problem. We were keeping our rifles as clean as any man could whose life depends upon such cleanliness. Still... there was a nagging doubt. After all, the ordnance folks were Marines, and surely they wouldn't lie to their brothers would they?! As a result, we tried different lubes that wouldn't pick up dirt, and even tried washing the rifles in gasoline pilfered from the motor transport types. A favorite of the time was some stuff called "*Dri-Slide*" (I'll have to take a hit on spelling here, as I remember it being a proprietary one). *Dri-Slide* contained a highly volatile carrier with something akin to powdered graphite that would deposit a "non-sticky" lubricant on the metal when the carrier evaporated. The U.S. Mail was burdened with many cans of *Dri-Slide* being sent from home to the Marines in Northern I Corps.

Anything greasy seemed to pick up powder residue and acted as a carrier of the stuff to ensure that the abrasive residue was distributed in a fashion reminiscent of lapping compound. This was obviously bad "ju-ju" to a rifle that already seemed to be more than slightly susceptible to dirty powder and the residue of battle. Immediate temporary fixes amounted to such things as having your cleaning rod assembled and taped to the side of the rifle, much in the style of the Civil War musket. By making a couple of loops with ordnance tape (also know to the airborne troops as "rigger's tape") with a piece put inside the loop to prevent the sticky side from impeding the rapid withdrawal of the "ramrod", your makeshift ejector was more easily accessed for immediate use. Unfortunately this was a double-edged sword. When a man was wounded and medivaced, the cleaning rod was often lost in an attempt to evac the Marine's rifle and his personal gear with him.

Under ordinary circumstances, this wouldn't have constituted a problem, but don't forget, we were issued one cleaning rod per rifle and there were no replacements available. As a result, many of the rifles issued to new replacements (taken from our wounded) were issued without cleaning rods, but, with the instructions to "use your buddy's." Most of the individuals that were medivaced were wounded due to the fact that their rifles malfunctioned; thus the rifles that were reissued, were those that were most susceptible to jamming and needed a cleaning rod to be used as an ejector (as opposed to a cleaning device). An already bad problem was being compounded.

### **An Analysis by the Bad Guys:**

During my latter days with 2/3 I served as the Battalion Intelligence Officer. One of the reports that came in was an intercepted message from the Viet Cong (Vietnamese Communists). The VC were not as well equipped as the NVA (the North Vietnamese Army - the regular Vietnamese Army people who operated primarily in the North just south of the DMZ).

We as Marines, usually policed all (or as much as we could find) of our equipment left on the battle field by our wounded. Most of course, was sent to the rear with the wounded man, but there would occasionally be items on the battle field by the departing units. The VC used this recovered equipment to equip their own rather meager supplies as would any good guerilla force. The intercepted document reinforced this practice, exhorting the VC troops to police the battle fields for usable equipment. This document however, had one telling exception to the rule. It stated that all equipment was to be picked up with the exception of "the little black rifle" which is useless to our cause!

I knew exactly what they were talking about!

### **Enter Ball Powder:**

Had we but known, the problem was not simply dirty powder or a lack of regular and conscientious cleaning by the operator, but was due in fact to the burning rate(s) and burning temperature of the powder coupled with varying gas-port pressures depending on the powder. It seems that the AR-15/M16 was developed and tested with extruded IMR (Improved Military Rifle) powder. This powder is relatively clean burning, but has a relatively high pressure peak during its initial ignition. Remington had been using some stuff called IMR-4475 that worked extremely well, but wasn't terribly consistent from lot to lot. Remington had solved the problem by using selected lots of the powder to obtain the desired burning rates and functioning in the M16. In fact the entire testing had been accomplished by using such ammunition. The double based powder (so called because it used both nitroglycerine and nitrocellulose in its manufacture) burned hotter than ball powder due to the nitroglycerine content, and the chamber pressures tended to be a bit higher than with say, ball powder. Because of the quality control problems with the double-based extruded IMR powder that had been used by Remington, all manufacturers of the 5.56mm cartridge preferred to use a less finicky ball powder. The argument was essentially that ball powder burned cooler, thus giving less barrel/throat erosion, and had a lower peak pressure, and would stay well within the pressure limits prescribed for the cartridge. The requirement for using only selected lots of IMR powder having been circumvented, not to mention the great amount of ball powder on hand, the problem seemingly had been solved. In May of 1964, the authorization to use "alternative propellants" was signed without conducting any sustained additional functioning tests. Even Gene Stoner himself issued a warning against such a procedure, but to no avail, and unfortunately there were several unsuspected flies in the ointment, much as Stoner had predicted.

The first and perhaps most important one was that they had not bothered to check the "port pressure" of the alternative powders. While it was true that the ball powders did have a lower "peak" pressure, they also had a higher port pressure. Let's start this discussion from a simple but accurate premise. All gas-operated mechanisms must be timed. This seemingly simple truism can be applied to automobiles as well as rifles. If there are moving parts involved that are influenced by gas pressure, it is necessary for all of these parts to arrive at their appointed location as designed, and to arrive at the proper time. Since the ball powder had a higher port pressure than the IMR-4475, the gas being vented through the gas tube was under greater pressure as the projectile passed the gas port than would have been the case with the IMR powder. Since the gas was under greater pressure, it should not come as any great surprise that the gas was traveling down the gas tube more rapidly than was normal during its designed functioning cycle. This meant that the gas reached the "gas key" on top of the bolt earlier in the functioning cycle than usual. It did, in fact, arrive while the

cartridge case was still firmly "obtured" to the chamber walls by the pressure of the gasses caused by the ignition of the cartridge.

By way of explanation, "obturation" is a physical process that takes advantage of the elasticity of the brass cartridge case and causes it to expand and conform to the exact shape of the chamber walls. The brass even sticks little fingers into minor (often invisible) irregularities in the chamber, thus sealing the chamber effectively and keeping gas from being blown back into the face of the operator. In of itself, obturation is a very good thing. The problem here, however, is that the gas reaching the bolt was arriving before the case obturation had subsided and the residual chamber pressure would not allow the brass to be easily broken loose from its hold on the chamber walls, extracted and ejected. The high port pressure and resulting delayed duration of case obturation often, if not usually, caused the extractor to either "jump the case rim" or pull through it, causing the case to remain in the chamber.

This "stuck case" problem was compounded by the fact that the ball powders being used by Remington (CR8136), Olin and Federal (WC846) were much dirtier burning powders than IMR-4475, and tended to "dirty" the rifle chamber area much quicker than the earlier powder. The dirt that deposited itself in the chamber and feeding areas of the rifle added to the extraction problems – dirty chambers tend to resist extraction to a much greater extent than clean chambers by increasing the coefficient of friction between the case and the chamber walls, thus making the cartridge case more reluctant to leave the chamber. Even dirty chambers can be kept clean with constant care, but unfortunately the dirty powder was aided and abetted by a calcium carbonate deterrent coating applied to the powder that added to the fouling problem. Alas the problem grew worse.

The higher port pressure of the ball powder also increased the cyclic rate of fire of the M16 (already too high in my opinion – the ideal rate of fire for a full auto is normally 500 rds. per minute). These started out at about 775 rds. per min. and sometimes reached 900 rpm in extreme circumstances. This was to become abusive to the rifles in light of what followed.

### **The Chrome Plated Chamber and the Watermelon Seed:**

OK, we will now leave the Army wrestling with the ball powder problem, and switch to the "quick fix" that was instituted as an interim solution to the criticism descending upon the military hierarchy. The first was the chrome plating of the chambers (and later the bore). It was reckoned that the chrome plating would reduce the coefficient of friction between the chamber and the cartridge case, resulting in easier extraction. Well, yes, and so it was; however, let's analyze the side effects. Have you ever taken a "still slimy watermelon seed" and squeezed it between your fingers and watched it as it squirted out? I'm sure everyone has tried that one at least once unless you are a permanent resident of the South Pole. What was happening was that with the reduced coefficient of friction and the easier to clean, slicker (and of course *tapered*) chamber, the brass was extracting considerably easier and almost squirting (much like the watermelon seed) the case out and causing the bolt to come to the rear with greater velocity than normal. That coupled with the increased cyclic rate (compliments of the ball powder) caused the rearward traveling bolt to batter the receivers rather badly. Since the timing problem had not actually been solved, this meant that the brass was being extracted while the case was still at least partially obtured in the chamber. As long as nothing else went wrong, this didn't seem to cause any catastrophic failure of the rifle, watermelon seeds notwithstanding.

## **Another Aspirin for a Brain Tumor:**

Rather than "retime" the gas system, or switch to a more stable IMR powder, the Army chose to stick with ball powder, as literally millions of rounds were on hand and there was a shooting war in progress. Now that the stuck brass problem had lessened (but had not been totally been alleviated), the next bugaboo was the "receiver battering problem". That one was fixed with the usual "aspirin for a brain tumor" prescription! Colt and the Army simply went with a heavier buffer group to lessen the impact to the frames, leaving the cyclic rate of fire unacceptably high, but at least the rifles were shooting after a fashion. The military was breathing a sigh of relief to have the U.S. Congress off their posteriors, and the entire problem was swept under the rug and seemingly forgotten, by all except those of us who had been the guinea pigs on McNamara's think tank solution to weapons procurement.

## **And Now, Slam Fires Too!**

In the middle of all our malfunctions, we had another dangerous problem that reared its ugly head. In the middle of a pitched battle in June of 1967, my company had two M16s literally blow up during firing! I was already pulling my hair out, but this seemed to be the final straw. These two stalwart lads had been firing some of the few rifles that were at least marginally functional. In the middle of a string and within a couple of minutes of each other these two rifles literally exploded in the riflemen's hands. Apparently, when the bolt closed, the rifle fired as in a "slam fire" scenario, and the rifles fired out of battery. This explosion blew off the carrying handle and most of the upper receiver. The remaining force blew down through the magazine well ( bulging the well on both sides), leaving the magazine tube in the well, but blowing all the rounds and the floor plate out the bottom of the rifle. The operators received scratches on the inside of their forearms from the rapidly exiting floorplates, but mercifully sustained no other visible injuries. In one of the two rifles, the bolt (sans carrier) was still dangling from the locking lugs with a blown case in the chamber. The second rifle was missing the case, the bolt and the bolt carrier. Both rifles were still rather comically held together by the hinge pin. If I had disliked the M16 prior to this, my dislike was rapidly ripening into an overt case of hate. To compound the problem, I had Dave Burrington from NBC News with the company covering the day's rather thrilling events (Dave was a nice gentleman, and he and I got along very well, considering the circumstances). The other newsman tagging along was some roaring a\$\$ hole from ABC News that I would have willingly "done for" if the opportunity had presented itself. My problem was that both of them had their cameramen trying desperately trying to get pictures of the destroyed rifles. This was prior to my crusading phase with the M16 and I was unfortunately able to keep them from taking any pictures. At that point in time I figured our dirty laundry should be cleaned up by the Marine Corps as opposed to a press that was openly hostile to what we considered our way of making a living. After all, we considered our mission was to keep the world safe for God, motherhood and the American Way. If I had only allowed those pictures to be taken, the whole M16 story might have turned out differently. The press might have caused the investigations to have been instituted by outraged congressmen, and Mike and I would not have had to write the "letter heard round the world" – ah well...

It turns out that the slam fire problem, while relatively rare, was well known within the Army Ordnance circles. Rare? ...and I had two within five minutes of each other? Damn, someone was trying to tell me something. The slam fire problem stemmed from soft primers, dirty chambers and a floating firing pin. Obviously a cartridge stripped off the top of a magazine and driven into a dirty chamber (perhaps slightly smaller than usual?) might well

refuse to completely seat. If the bolt was slamming forward with fair velocity, and stopped abruptly with the case almost (but not quite) seated, just short of the locking lugs performing their magic, the weight of a firing pin continuing to move forward (as in Newton's Laws of Physics) might well make contact with a sensitive primer causing the cartridge to fire with the bolt unlocked!

After much study, the Army Ordnance folks recommended a much harder primer, but none of the ammunition companies would bid on such ammunition as they felt that it would cause more failures to fire than it did slamfires. Many fixes were tried including a spring loaded firing pin (versus the floating one), but Colt finally came up with a simple fix that solved the problem. A lighter firing pin solved the problem and the slam fires went away.

### **Rifles Issued With Known Problems?**

While I have checked the ordnance reports of the time, most of the problems that have been discussed were known and supposedly fixed before our Battalion even drew our brand new XM16E1s in April of 1967. Even though many of the problems and the fixes were supposedly known, our rifles still had unplated chambers (actually the chrome plated chamber wasn't approved until the end of May 1967), light buffer groups and heavy firing pins – hell, I don't know, maybe the Navy Medical folks needed the practice, or it was cheaper to write off the older models in combat than recall them for an upgrade. I have the definite feeling that many of the histories were written after the fact and the dates filled in to put those at fault in the clear for posterity to read and judge. Perhaps I judge too harshly, but those were brutal times, and I was young and idealistic – and my bubble had been forever burst.

### **Smaller Chambers?**

One final story and I will conclude this rather rambling discourse. This one is an attempt to explain the 50% of the rifles that functioned reasonably reliably and the 50% that refused to do so. I must interject that the 50% figure I am using is strictly subjective. When we fired these rifles, we made the observation that approximately half of the darned things seemed to shoot and half didn't. Not knowing that we should have kept exact figures for later analysis, we were simply making informed observations. Please keep this in mind during the following discussion.

There were many (unsubstantiated) stories floating around that there was a slight difference in chamber dimension between the ArmaLite chambers and the Colt chambers. While it was reputed to be very minimal, and under ideal circumstances the commercial or military ammunition would work satisfactorily in both guns, under less than ideal circumstance things went to hell in a handbasket. It was rumored that the Colt chambers were ever so slightly tighter than the ArmaLite chambers (a matter of a ten thousandth or so). That would have been no problem in a commercial rifle, but here the work was moved to Colt and they were having labor problems and union shops are notorious for work just good enough to get by. The Colt Union Shop problems were such that a two month strike took place in 1967 over the report that the Army was looking for other (additional) manufacturers to supply M16 rifles to the military.

It was also reported that the quality control at Colt was not as stringent as that at ArmaLite. Don't forget, they (ArmaLite) were trying to sell a new product over the objection of

the Ordnance Corps, and by the time Colt came along the fight had been largely won. Assuming the quality control was slightly looser at Colt, let's take a quick look at the classic "Bell Shaped Curve" (assuming a normal statistical distribution) used in statistical analysis. The "+ side" of the curve would show that at least  $\frac{1}{2}$  of the chambers would have been tending toward the *maximum* allowable chamber dimension (statistically), thus giving no problem. The other  $\frac{1}{2}$  (the "- side") would have been closer to the *minimum* allowable (Colt) dimension. Unfortunately under this premise, the minimum allowable Colt chamber would have been smaller than the minimum allowable ArmaLite chamber.

One of these "small (Colt) chambers" coupled with the lack of a "retimed gas system" and the admitted powder residue problem caused by the use of ball powder, could explain the mysterious (perceived) 50% jamming problem often present even when the rifles were freshly cleaned. The ball powder would have rapidly fouled the chambers. Thus a cartridge case designed for the slightly larger ArmaLite chamber (with tighter quality control) being forced into a minimum Colt chamber, coupled with higher port pressure and dirty powder, would have strenuously resisted extraction. It is not my intention to accuse Colt of deliberately manufacturing rifles that wouldn't fire. If the IMR Rifle Powder had been retained, there would probably have been no problem. If, however, we combine the smaller allowable (minimum) chamber with a dirty powder, we have the formula for a military disaster.

The scenario would go roughly like this. A cartridge case would be stuffed into a "small chamber" (dirtied with a residue known to result from the ball powder combustion). During the firing cycle, the primer would ignite the powder and launch the projectile down the bore. The resulting chamber pressure would "obturate" the cartridge case to the chamber walls. Since the "gas port pressure" is higher with the ball powder than the IMR, the bolt would start to the rear under the pressure channeled through the gas tube and attempt to initiate the unlocking and extraction portion of the operating cycle too soon. An attempt to extract a cartridge case still plastered to the chamber walls by residual pressure, and further resisting such actions due to the increased coefficient of friction resulting from the powder residue in the chamber would often cause the extractor to either pull through or jump the case rim, leaving the case in the chamber. If the "small chamber" premise *IS* true, it would go a long way toward explaining the "unexplainable problem". I suppose we will never know for sure, but it makes sense in light of what we know today.

A retired Colonel (an Army ammunition expert) told me a story in 1974 that boggles the imagination. This gentleman told me that he was sent to open up the production of 5.56mm NATO ammunition at the Twin Cities ammunition plant in the early 1960s. He asked his boss (unnamed) for the specifications of the 5.56mm cartridge dimensions. He was supposedly told that they didn't have the dimensions and he would have to get them on his own (you've gotta' be kidding!). He told me that he went on an "M16 Rifle safari" to obtain a statistical sample of M16s for making "chamber casts" to discern the correct cartridge dimensions. After a concerted search in such places as Ft. Leavenworth, Ft. Campbell and Ft. Knox, Kentucky, he came up with 17 rifles, all early products of ArmaLite. He took the necessary chamber casts and came up with the cartridge specifications (which may of course have been ever so slightly larger than the later Colt chamber dimensions). While this sounds a bit far out to me, I am in no position to cast stones. Many of the machinations concerning the saga of the M16 are a bit "far out", even though they are verifiably true. If (and this is a BIG if) the tale *IS* true, such an unlikely story would add credence to the "small chamber" idea. On the other hand, the Colonel had no reason to lie, he wasn't aware of my background or previous experiences and we weren't engaged in a "can you top this" sea story session...

## **The Demise of Ordnance Expertise Within the Army:**

In retrospect, the M16 was the result of an open bid system overriding the expertise of an experienced ordnance corps. While we often get better products in a totally free market economy, this procurement system assumes a level of ordnance expertise not normally within the grasp of an inventor and his backers "force feeding" a new weapons system on the military to satisfy the desires and egos of civilian inventors. The Army Ordnance system was not loath to contact talented civilian inventors for their expertise in term of new weaponry, but with the M16 it was a case of the Industrial Complex (of the "Military – Industrial Complex" fame) telling the military what it needed and then forcing them to buy it. The Armory system had worked, and worked well, and we are still smarting from the lack of the expertise that Robert McNamara eliminated along with Springfield Armory using his "bottom line procurement procedures".

The Army isn't always blameless either, as evidenced by their efforts to produce a rifle for all seasons that resulted in giving the M14 an undeserved bad rap. The effort to produce a rifle that would replace both the M1 and the BAR was doomed to failure from the start. I personally feel that the M14 was the *finest* battle rifle ever adopted by the United States, but conversely, it came very close to being the *most unsatisfactory* squad automatic weapon we have ever adopted when employed in the full automatic mode. The full automatic feature and the M14 did not get along well together. It was simply too light to do the job. If we had discarded the full automatic feature of the M14 and substituted the M60 machine gun for the BAR to maintain commonality of ammunition, we would have truly had a Marine Rifle squad of awesome capability! This would not have been the ultimate solution, as the M60 exceeded the reasonable weight of a "squad automatic", but it would have been a fix we could have lived with while a new squad automatic was being developed,

Attempting to have one rifle do everything well is just as unrealistic as having one aircraft that fills every need for our air arm. The F111 was one attempt to do this, and ultimately it failed in its task. It did a couple of things very well indeed, but most aviators will tell you that it is far better to have a really good fighter aircraft, another designed primarily for air superiority, and an attack plane to support the troops on the ground. A bomber very rarely can fill in satisfactorily as a fighter, but still they try. And so it is with the service rifle. Even though the M16 was equipped with a full automatic switch, it made an absolutely horrible squad automatic weapon. Had I had my way, I would have had a talented welder put a bead of heli-arc on the M16 frame rendering it incapable of full automatic fire. Most of today's military experts seem to have forgotten that there is a vast difference between "*fire power*" and "*volume of fire*". Someone should hold classes! Ultimately, the services did adopt the FN (M249) version of the SAW (Squad Automatic Weapon), and it seems to be a fine little gun, although it still shoots an anti-groundhog projectile.

## **Tactical Considerations and the "All Around Rifle":**

In our enthusiasm to come up with the perfect rife, ordnance seems to occasionally forget that a certain amount of cohesiveness of the rifle squad is/was based upon the teamwork necessary to keep the squad automatic rifle in action – at least that has always been the case in the Marines. Early in WWII we traded our old eight-man squad for a 13-man squad composed of three "four man" fire teams and a squad leader. Each fire team had one BAR (a total of 3 per squad) and each fire team's job was to keep the BAR in action. This accounted for the cohesiveness in the fire team I spoke of above, and gave each fire team member a



reason for existence. In the old days, we (as troops) were cautioned that (in combat) if there were only three men left in a squad, all three had better be carrying a BAR. The M14 with its selector switch and bipod did away with all that, as now all the rifles looked the same. The heat of the jungle caused the ever weight conscious Marine to leave the bipod in the rear to cut down on his load. Since every M14 was easily converted to full auto, most were. At this point, the fire team members no longer felt the necessity of covering and supporting the automatic rifleman, since all the rifles now looked and functioned alike; tactics went to hell in a handbasket.

The M16 simply perpetuated the mistakes of the past, except that it was now worse. Now every gun had a "go faster switch" and fire discipline became a thing of the past. I still remember the TV coverage of the battle of Hue with the rifleman sticking his M16 over the parapet by the pistol grip and firing a full magazine without the slightest idea of what he was shooting at. What a waste! Tactics were going the way of the "Do-Do Bird" and everyone was marveling at the number of rounds that the average rifleman was able to fire against our enemy(s), although I began to suspect that our real enemy resided in the Defense Department in the name of Robert McNamara, and leadership in the Military by individuals who hadn't seen combat since the charge up San Juan Hill.

### **Silk Purses and Sow's Ears:**

In the retrospect of 37 years, I sometimes despair. In 1977 when I was stationed at MTU (Marksmanship Training Unit) Quantico, Virginia, one of our former shooters (Maj. Bruce Wincensen) was transferred in the normal course of assignments to the Ordnance Section of the Marine Corps Development Board, and was assigned to the project of coming up with a product improved M16. Bruce did a rather workmanlike job on the project, and when the smoke settled we had the M16A2. While the M16A2 is undeniably an improvement over its predecessors, we are still stuck with a rifle that doesn't qualify as a deer sized hunting rifle in but one or two uninformed states.

As a matter of personal harassment, I used to call Bruce occasionally and ask him how he was coming along with rearranging the deck chairs on the Titanic – his answer was usually unprintable. The bullet weight has been increased to 63 grains, and its accuracy (most especially in the match versions) is superb. The M16A2 (in a match-conditioned version) is now often beating the M14 in match competition, but then the *accuracy* of the M16 has never been my bone of contention. The barrel weight had been increased and the barrel twist tightened to 1-7 to accommodate the heavier bullet. The maximum effective range of the M16 is now said to be 800 meters (someone is smoking something not authorized by the UCMJ). However the M16A2 now weighs in at a hefty 7.9 lbs., just short of the M14's 9.3 lbs. (a difference of a mere 1.4 lbs. but still delivering a projectile with the punch of an anti-varmint device). I hasten to add that the *normally* quoted weight for the M14 was 8.7 lbs, versus the above quoted 9.3. I was simply giving those who would dig out the maximum quoted weight the benefit of the doubt. At 8.7 lbs. the weight differential is just over 3/4th of a lb. heavier than the M16. Obviously, the lightweight rifle had become anything but! The addition of a mere eight grains to the bullet weight (a grain is 1/7000<sup>th</sup> of a pound) does not fill me with a great deal of confidence or fill me with thoughts of increased lethality. A mouse(gun) is a mouse(gun)...

Mercifully, the Marines were able to take the objectionable full automatic switch off of the M16 and substitute a three shot burst control switch. Many individuals in high positions were

in love with the full automatic feature of the M16 (or any service rifle), and the 3 shot burst was simply included as a "sop" in the redesign of the M16 for those too ignorant to have a grasp of good infantry tactics.

While there is a place for a lightweight full automatic in the infantry TE (table of equipment), it is more properly included as a carbine or submachine gun. The current M4 Carbine, (a variation of the M16A2), works very well and lends itself very nicely use in close combat and for the clearing of houses and buildings in a built up area.

In my opinion, the three shot burst control on the service rifle, means that a pull of the trigger by a "panicked or inexperienced troop" will only result in two wasted rounds instead of 29! Some so-called experts have said that S.L.A. Marshall (S.L.A. indicating General Marshall's initials) claimed that the addition of a full auto switch resulted in more individuals firing their rifles in combat. If this is so, it is a sorry indictment of our military leadership. While some individuals have questioned S.L.A. Marshall's findings in recent times, there are still those who place a great amount of credence in his observations.

A properly indoctrinated combat soldier will not only fire his rifle but he will also get hits on target. The problem is not with weaponry, but with leadership!

### **And Finally:**

The ultimate adoption of the M16 essentially reduced the effective range of the Marine Rifle squad from 500 yards to an optimistic 300, but no one in a position to do anything about it will admit it! A Marine Lt. Col. in the intelligence field was assigned to attend the Annual G2's Conference in 1982 held at Headquarters Marine Corps. He told me the following story in confidence, so I will omit his name for obvious reasons. He stated that a high point of the conference was a brief address by the Commandant of the Marine Corps, at that time General Robert H. Barrow. General Barrow closed the conference with a comment about the new M16A2 Rifle the Corps was adopting. He told them about the developmental work that Maj. Wincensen and the Development Board had done on the rifle and added;

"If I learn of ANY officer or Staff NCO criticizing the new M16, that Marine can tattoo his rank insignia on his collar bone (an exact quote). He'll never be promoted as long as I'M the Commandant!"

Some things never change...

### **Valhalla and Beyond:**

In Norse mythology, fallen heroes were welcomed to Valhalla as a reward for valorous conduct. Those of us in the profession of arms often speak of this, the warriors' final resting-place, where no one grows old, and honor is held in high esteem. If there is an all-knowing and all-wise God, as there must surely be, we will someday meet our comrades in arms at the gates of Valhalla, and shake the hands of our friends... I only hope that we will be as worthy of entrance as those who secured their place defending a cause in which they believed, using a rifle that was not worthy of their bravery and sacrifice.

...And may the Marine Corps always be guided by the words of Marine Maj. Gen. Rupertus' in *The Rifleman's Creed* (included in all the rifle qualification score books in the Marine Corps):

*"My rifle and myself know that what counts in this war is not the rounds we fire, the noise of our burst, not the smoke we make. We know that it is the hits that count. We will hit..."*

I can only add Amen...

## ROC

### And a Post Script:

While my story has been mainly about Marines since they are my people and I know them best, I am also painfully aware that many of our Army brothers went through the same frustrating ordeals that were experienced by the Marines in Northern I Corps. To those fine gentlemen, my hat's off to you and for those who gave their lives in the performance of their duties. You have my everlasting admiration and my thanks. The following parody in the style of Robert Service is dedicated to you as well!

### **For Hotel Company**

#### **2<sup>nd</sup> Battalion, 3<sup>rd</sup> Regiment of Marines**

There were strange things done under the jungle sun  
By the men with the "Matty Mattel",  
The jungle trails have their secret tales,  
Of men who've had a glimpse of Hell.

There were memories clear of loved ones dear,  
Who resided on Stateside sod,  
By the sweating veterans of jungle fights,  
As they cleared their jams with a rod.

These were the Marines of the Infantry line  
Who offered the country their souls.  
Of men who tried and fought and died  
And here their story is told.

'Twas a different time and men of a different breed.  
Their story's of danger in a different clime,  
Of jungle fights where they fought and died,  
With a plastic toy and a cleaning rod...  
-- for McNamara's bottom line!

With apologies to Robert Service

***Semper Fidelis my friends...***

**Dick Culver**