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# The Rise, Fall, & Rebirth of The 'Emma Gees' (Part 1)

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The term "Emma Gees" was the nickname used for machine gunners during World War I. I thought it an appropriate title for this series of articles as World War I was the Canadian machine gunners' finest hour. They were the first to perfect the machine gun barrage and the first to form machine gun units. They became the recognized authority on machine gun employment and their techniques were eventually adopted by the British, French, Belgians and Italians. Between the wars and during World War II we still maintained dedicated machine gun units. The state of the art remained high until the late 60's when the machine gun became a "hey you" weapon. In five short years we came close to losing expertise that had taken 50 years to develop.

When I was first commissioned in 1963 (not really all that long ago) our battalion machine gunners were considered specialists, the same as the mortarmen, pioneers and anti-tank gunners. On exercises, we normally had a machine gun section attached to the company. Their guns were always well sited and carefully coordinated with the battalion plan. This all changed; however, with the introduction of the APC. Suddenly we became a machine gun battalion. and went through the motions of teaching the troops how to load, unload and fire these weapons but their tactical employment was neglected badly. A few dedicated souls attempted to keep the art alive but their efforts were doomed from the beginning. The machine gun wing at the School of Infantry disappeared and the advanced machine gunner qualification was deleted from the books.

The formation, in 1974, of the Tactics Doctrine Board to study the tactical employment of machine guns was the first of the labour pains accompanying the rebirth. The document they produced is well on its way as an amendment to the official machine gun CFP. It also forms the basis of the tactics instruction given students on the Advanced Machine Gun Course, reintroduced in April 1977.

As Small Arms Platoon Commander at the Infantry School, these past two years, I have been closely involved with everything concerning machine guns. I have preached to students at every level, from the potential platoon 2IC to future company Commanders. There is one group, however, that I have been unable to reach - the regimental officers currently in command positions in our battalions. I am hoping that through the *Infantry Journal* I can reach this important group.

I first decided to write this article while a DS on the Infantry Officer Phase Four Course, last summer. During a TEWT, one of the other DS, an officer I respect as a competent professional, criticized a student on the way he had deployed one of his platoon machine guns. The DS was a graduate of both the Company Commander's Course and the CLFCSC at Kingston. The student, however, had recently attended an Advanced Machine Gun Course. The gun in question was sited perfectly and complied with one of the basic principles of machine gun employment. The DS simply didn't know. How many other blissfully ignorant people do we have commanding in the field right now, I asked myself. Thus this series of articles was launched.

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This is not a fire and brimstone presentation damning every officer who has ever misused a machine gun. I am not without sin myself; therefore I am not qualified to throw the first stone. Neither is it an outlet for my own theories. It is strictly an elaboration on how Infantry machine guns should be employed according to Official Canadian Forces Doctrine.

It is often said that the secrets of the future can be learned in the lessons of the past. Canada's machine gun heritage is most worthy of study and for that reason, I have devoted the entire first article to it. The article is in two parts: World War I and World War II. The World War I segment is as authentic as a thorough study of official histories can make it. All of the events described actually happened. The Old One, however, is a figment of my imagination. The World War II characters are all real. Lance Corporal Doug Riggs exists and is currently a Major in the Cadet Services of Canada, working out of Oromocto, New Brunswick. To him go my thanks for his patience during those hours when I tried to match his memories up with the official Canadian Army history.

Let us now slide our minds back 60 years and join the Old One and his "Emma Gees" as they prepare to take their place in the front lines.

### **The Old One**

A low overcast hung over the pock-marked field east of Arras that night in August 1918. All was quiet in the small French farming community just behind the front lines. The men of the machine gun company lounged around, making themselves as comfortable as possible, waiting for the sun's last rays to die. They had moved into the village that morning and now waited for the cover of darkness before relieving their sister company of the 2nd Battalion of the Canadian-Machine Gun Corps. They were a mixed lot. Some were veterans of many battles while others were new to France and had recently graduated from the Canadian Corps Machine Gun School at Aubin-St Vaast. Some had been Machine Gunners for years, while others had only recently joined the Corps from the various infantry

battalions. They were organized into four batteries, each of four two-gun sections. They sat around in their section groups waiting for the signal to move out. Some were still finishing their supper of bully beef and biscuits, but the more experienced ones slept, for it would be a long night.

The young private was too nervous to either eat or sleep. He turned to the lance corporal lying on the straw next to him and said, "What's it really like in the trenches, is it really as bad as they say?" "Worse at times," the NCO replied, "but don't worry, lad, the Old One was up on a recce last night and he says these holes are pretty dry right now. You may have lucked in for your first tour." "What is going to happen tonight?", the young soldier continued. "I know the Old One briefed us all this afternoon, but would you believe I can't remember a word of it."

"Don't worry about it, lad," the veteran assured him. "We all went through the first tour jitters. You'll settle down after a few days." (I'll have to keep a close eye on him for those few days, though, he thought to himself.)

"The company will probably start moving out in about 20 minutes. We'll be the last to leave as we don't have as far to go as the other batteries. We'll leave our limbers at the beginning of the communications trench and pack everything forward from there on our backs. There will be a guide from the section were relieving and he'll take us forward to the gun pits. The guns go in first with as much ammo as we can carry. Then we'll make as many more trips as are necessary to get the rest of the area, water, rations, etc up. If we are lucky, the guns we're replacing won't have been in much action lately and will have lots of ammo on the position. If that's the case, we just take it over from them and they replace it from our limbers on their way out. It saves us all a lot of work. We do the same thing with tripods, but for a different reason."

"Yes, I know all about that.", the young soldier interrupted. "By leaving their tripods and aiming stakes in position, we just take over their range

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cards and don't have to worry about registering targets."

"That's right," the lance corporal answered. "There will be lots to do for the first few hours and we probably won't get any sleep tonight, but don't worry. I'll be right beside you to tell you what to do."

"I couldn't sleep anyway," the soldier replied. "Don't those guns ever stop? They've been going all day."

"After a while you get so tired you don't notice them until they do stop. Then, you'll be wise to stay alert because it is sure as hell a signal that something is going to happen. You had better concentrate on keeping your head down anyway for the first few days and don't get too curious about what the German line looks like. They will have all our gun positions pegged and we are prime targets for their snipers. They don't call our Corps the suicide club for nothing."

"I'll remember that. I want to live to see the end of this war."

"Well if that's the way you feel, stay close to the Old One. He has been through it all and is still alive and kicking. Left Canada with the First Division back in '14, he did. Was one of the originals in the Motors."

"Is that why they call him the Old One? He doesn't really look that old, does he?"

"No, he doesn't. I wouldn't say he's much over thirty, but this war has been hard on him. Listen to the way he breathes as he sleeps. That's what poison gas does to you. He also has a bad leg, but he'll never admit it. He's a survivor though. They say he was once buried alive for over five hours back in 1916 and when they finally dug him out, he didn't even go on sick parade. No, he's got a lucky star shining on him and we will both do well to stay close to him."

Their discussion faded with the twilight and soon it was time to move. They could hear men, mules and wagons shuffling around them. "Shouldn't

we wake him up?" the young soldier asked the lance corporal.

"Not just yet," he replied. "As I said before, we will be the last to leave, so we've got a little while yet. Let him rest." It wasn't long, however, until one of the battery runners appeared and said: "get ready, Captain says we'll be moving in about 10 minutes."

The lance corporal carefully nudged his left shoulder and the Old One awoke instantly, his reflexes honed to a fine edge by his years in the trenches. Instinctively, he reached for his gas mask, and reassured by its comforting presence, took quick stock of the situation. He listened to the gunfire and by its tone, knew he wasn't in the front lines. He glanced around and suddenly it all came back. They had been out of the line in rest billets and were now on their way back up. It must be almost time to move, he thought to himself as he slowly got to his feet. His left leg was throbbing painfully. "Everything ready to go?" he said to the corporal. The NCO nodded his answer and seconds later, the word to fall in was passed down the line. Five minutes later, they were on their way.

As they walked along the road, the sound of the guns became louder. Soon, they were among the field batteries, their muzzles flashing on either side with ear-splitting bangs. Every now and then, they could make out the whistle of an incoming enemy shell but none landed close enough to cause concern. There were others on the road, mostly administrative personnel bringing up rations, ammunition and the like. Faceless shapes in the dark, each group going about its own business. Eventually, they arrived at the entrance to the communications trench where the guide was waiting for them. The rest of the battery had disappeared, each section to its own RV. They had arrived at The Front.

The Old One had a brief chat with the guide, then signalled the section to start unloading the limbers. "The guide says they've got lots of ammo on the position," he said, "so we'll just take a few belts up with us. He says the Germans

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have been lobbing gas shells all day so make sure you can get your masks out in a hurry.”

Before long, the section was moving again, this time each man was straining under a heavy load. The young soldier carried the 40 pound Vickers gun over his right shoulder and a partial belt of ammunition around his neck. He gazed around awestruck. The trench was deep, deeper than he thought it would be. The walls were shored up in places with timbers and sandbags were everywhere. The bottom was lined with duckboards. Every now and then, a rat would run across in front of him. The whole place smelled of death. They periodically passed other columns moving the other way. Some of the troops carried stretchers while others carried empty sandbags. Soon, they would retrace their steps, but this time the sandbags would be filled with the bread, cheese, bully beef and bacon that were the standard fare of the front line soldier. The trench was like a snake, twisting and turning this way and that. For what seemed an hour (but was really much less), he followed closely behind the lance corporal. Suddenly, the column stopped. The lance corporal turned and whispered “we’ve just come to the support line. The guide is clearing us through the sentry. We don’t have far to go now. Do you want me to take the gun for a while?”

“No thanks, I’ve brought it this far and I can make it the rest of the way,” the young man replied. Soon, the column was moving again. Now, they were making their way through occupied trenches. There were troops everywhere; some on the move and some in residence. Every few minutes, a Very light went up, bathing the barbed wire in an eerie blue-green light and there was sporadic machine gun fire up and down the line. The artillery was still firing steadily, but both sides were aiming at targets in depth. For the moment, the front lines were reasonably quiet.

Suddenly, they were there. Two members of the outgoing gun crew were on the position, waiting patiently for relief. The rest were back in the section dug-out getting their kit ready. The lance corporal had a quick chat with his counterpart,

then signalled for the private to bring the gun forward. They quickly dismounted the outgoing gun and slapped their own in its place. “They figure they can get all their kit out in one trip if we help them,” the lance corporal said to his crew. “I’ll stay here and finish the handover. I want the rest of you to go back with these chaps. They’ll then help you bring the rest of our kit up. when you get back, I’ll have the duty roster ready and some of you can get some rest.”

As the small column moved back towards the dugout, the gun commander continued with the handover. First, he checked the bedding of the tripod making sure it hadn’t shifted when they changed guns. Then he checked the gun itself, making sure the water jacket was filled to the right level and the condenser can was two-thirds full. He pulled the string to check the night aiming lamp 15 yards out in no man’s land and then went over the target list.

Like a shadow, the Old One slipped into the machine gun pit. “The other gun is about 20 yards over there,” he said. “Unless I say otherwise, you will always fire together. I’ll be in the trench between the two of you. There is a field phone to battery HQ there and another one in the dugout. Any problems with the handover?”

“No, everything seems in order. We could come into action now if we had to,” the lance corporal replied.

“Good. I expect the troops will be back before too long, then we can get our normal routine going. How is that replacement making out?”

“Young and scared,” came the reply. “He seems keen enough, though. I think it might be a good idea if you had a chat with him. Try and calm him down a little.”

“I’ll keep my eyes open for the right moment,” the Old One said and as silently as he had arrived, he departed. The right moment came two hours later. The Old One was sitting in the dugout studying a sketch of the position by the light of a solitary candle. The dugout was about 10 feet square and roofed with sagging, smoke blackened

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timbers. Along two walls were narrow wire netted bunks, occupied by members of the section. There was a brazier for cooking and heating and a crude table in the middle. Not a bad hole, he thought. Suddenly, there was a loud explosion just outside the door and the young replacement flew through the gas curtain, straight into his arms. As they both got to their feet, the younger one started shaking like a leaf. "Calm down," the sergeant said in a soft voice. "that was just a 5.9 shell. Just thank your lucky stars you were on your way in when it hit. You will have closer calls than that before this is over."

Trying desperately to regain control of himself, the young soldier looked at the sergeant and said "I guess you've had lots of close calls. Have you really been here since 1915?" "That I have," the Old One replied. "Sit down over here and I'll tell you all about it." He turned to the signaller, religiously maintaining his vigil by the field phone and said "put some water on for tea, would you." Then he sat down beside the youngster, lit up a Woodbine and began to talk.

"You see," he began, "both my parents were born in England so when the call for volunteers came out it only seemed right that someone from the family had to go. My older brother's wife had just had twins so we couldn't expect him to leave and Billy was only 14, so that left me. We lived just outside of Ottawa so one morning, I just said a fast goodbye and jumped on a train. At the station, in Ottawa, I saw a sign advertising for recruits for the Automobile Machine Gun Brigade. It said they were looking for people who had done mechanical work and interested persons were to report to a Major Sifton at the Chateau Laurier Hotel. Well, I was a mechanic of sorts and this looked more interesting than just being a straight infanteer, so away I went. I didn't have any trouble finding the Major's suite as there was a line up stretching back to the main lobby. Eventually, I got to the front of the line and the next thing I knew, I was on my way to the field camp at Valcartier over in Quebec.

"There must have been 30,000 of us there. Only 125 of us were with the machine guns, though. We were late getting organized and really didn't

do much training before leaving Canada. We were sort of like the "Princess Pats" in a way. Fifteen wealthy businessmen chipped in to raise \$150,000 for our kit. General Brutinel was our CO; of course he was just a major then. Our equipment consisted of 20 Colt machine guns and eight armoured cars. The Major picked the guns up from the factory himself using one of the armoured cars. Good thing he took the armoured car, because he was ambushed just outside the plant by a group of German sympathizers. The way I figure it, those must have been the first shots fired at a Canadian during this war.

"We boarded our ships at Quebec City, let's see - I guess that would have been about the 1st of October. What a hive of confusion that was. We were all on the same ship, but our kit was scattered throughout the fleet. It took weeks to sort it out once we got overseas. The crossing took almost two weeks. We stayed on board for two more days before debarking at Plymouth, then there was a seven hour train ride and a 10 mile march. We moved into tents on Salisbury Plain and started training right away. It wasn't a bad place when we first arrived. That didn't last long though. It rained for 89 out of our first 123 days there. Something about the soil kept the water from draining off and the whole place turned into a swamp. Somehow, we managed to survive, though, and we got in some good training to boot. Mainly infantry stuff at first, but eventually, the Major came up with some machine gun training manuals - I think he wrote them himself - and we got serious about what we saw our role to be in the battles to come. We took those Colt guns apart so many times, it's a wonder we didn't wear them out. We weren't considered machine gunners until we could strip and assemble them blindfolded. The only thing we didn't get to do was fire them. It seems the British authorities were concerned about us chewing up their turf.

"We weren't the only machine gunners around, though. Each of the infantry battalions had four Colt guns as well. We spent a lot of time working with their machine gun sections. I must admit we were a little too cocky at times. We used to drive around in our cars showing off a lot. Each car

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carried two guns and 10,000 rounds of ammunition. We figured we could whip the Kaiser's Army all by ourselves and we were rather vocal about it. Boy, did we get our comeuppance when we didn't go to France with the Division.

"I remember the day we paraded for the King. It was during the first week in February. We were originally supposed to fall in like regular infantry, but Major Brutinel wasn't having any of it. He said we were the Motor Machine Gun Brigade and our motors had as much of a place on the parade as we did. Anyway, he formed us up in three lines with the armoured cars out front and the ammo trucks and repair vans in the back. The officers, drivers and number one gunners stood in front of the cars and the rest of us lounged in the back, oblivious to what was going on outside. We were just considering getting a card game going, when we heard a scuffling noise outside the car and the next thing we knew, the King was staring down at us. I don't know who was more surprised, him or us. We all jumped to attention and in doing so almost knocked him over. Fortunately, the King had a good sense of humour and he chuckled about the whole thing. He was real interested in us and our kit and gave us a good looking over. He was standing beside our car waiting for his horse to be brought over when he turned to Lord Kitchener and said 'This is a pretty useful unit.'

'I'm afraid not, Your Majesty,' Kitchener answered. 'It would be most difficult to employ, and would throw out of balance the firepower of a division.'

"That night, Major Brutinel gathered us all together and gave us the bad news. General Alderson, the Division Commander, agreed with Lord Kitchener. We would not be going to France.

"We lounged around Salisbury Plain for a few days after the Contingent left, then moved to Kent where we did so-called coast guard duty. The only good thing that happened there was that we finally got to fire our guns. We found some old limestone quarries where we fired for hours, practicing clearing stoppages. And I'll tell you,

that old Colt gun sure had its share of them. We kept hearing rumours that we would be getting Vickers guns soon, but when we finally did get to France, in June, the Colts were still with us."

The Old One shifted his position and lit another Woodbine. The signaler took advantage of the lull to pass around mugs of tea. One of the sleeping figures on the wire net bunks had awoken and two other members of the section had entered the dugout and were listening attentively. "What were things like when you finally did get to France?" one of them asked.

"Well, the line was pretty quiet then," the Old One continued. "There had been some terrible fighting earlier on that year, but both sides were sort of licking their wounds, you might say, and getting ready for the next go. The Canadians were up north of Armentieres when we joined them. We established and manned a series of strong points all along the Division's front; then, used our cars as mobile anti-aircraft sections. We used to drive up and down the roads, just back of the lines, taking pot shots at enemy reconnaissance planes. We got quite a few of them, too."

"We were looking forward to meeting the machine gunners we'd worked with on Salisbury Plain, but we soon quit trying to find them. Almost all of them were dead. Yeh, in those days, we still had a lot to learn from Jerry about machine guns. His Maxims were better than our Colts and he had more of them. His generals seemed to know how to use them more effectively than ours did, as well. One of our officers told us that the Germans had sent a bunch of observers to some war the Russians and Japanese had a while back to see how they used their machine guns. When these guys came back to Germany, they spent eight million marks developing machine gun units."

"The one thing we got into before the Germans did was indirect fire. Everyone is using it now, but in those days, no one had tried it. Brutinel was a Lieutenant Colonel by then and held been playing around for some time with models and trajectory charts. We were set up in a stable near a place called Chateau La Hutte about 1500 yards

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behind our front lines. One day in late September, the Colonel arrived and gave us a bunch of data he wanted to put on the guns. He said that there was a high ridge about 500 yards behind the German front lines where their Artillery officers used to meet every day. He planned on giving them a surprise the next time they showed up. We didn't have long to wait and boy, did we ever give it to them. We fired four guns at a time and everyone got a chance to try it. It made the Germans so mad, that they brought an eight inch gun up and put 10 rounds into the Chateau, levelling the place. It didn't bother us as we were in the stables."

"Well, that really started thing rolling. Next thing we knew, we were doing all sorts of experiments. It took a while to catch on though. The infantry didn't care much for us firing over their heads. We had to be awful careful at first because those Colt guns had some funny quirks. One was that the first round always fell short. I remember one day we were practicing our drills when the Colonel brought some senior officers over to watch. One of them seemed rather sceptical about the whole thing and brought up the problem of the first round. 'Oh we've solved that,' the Colonel said. 'We always remove the first round from the belt.' We all broke out laughing, but I don't think our visitors were amused."

"We weren't involved in any major operations during the winter of 1915-1916. The infantry were very busy with night patrols and trench raids, though, and we supported them a lot. Our biggest problem was just surviving in the trenches."

"Things started to happen once spring arrived. The Canadian Contingent had become a Corps by then. The Borden Battery had arrived in France and joined our Brigade and each of the infantry brigades now had a machine gun company. I'd been promoted to lance corporal and was commanding a gun. We were supporting 2nd Division, who had moved down to the Ypres salient in February. In late March, the British launched a major attack near St Eloi. For months, their engineers had been digging tunnels under

the German lines. They crammed them with explosives, then just before the attack, they blew the whole German front line sky high. I didn't see it actually happen, but I understand it was really something. The problem was that the explosions destroyed all drainage and obliterated all landmarks. The Front, in that area, suddenly consisted of seven huge craters half filled with water with seas of mud between them. The British were supposed to stabilize the new line; then, we would take over from them. Well, the line was anything but stable when we arrived. Our cars were no good to us there, so we manhandled the guns and ammo forward through the mud. Things were completely confused and nobody seemed to know what was going on. Enemy fire was coming from three directions and we took a lot of casualties. I lost my gun and one of my men on the way in. We were making our way along the edge of one of the craters, when the fellow carrying the gun slipped and slid down into the noddy water. He just kept on going and never came up."

"There was as much fire behind us as in front so we just kept on moving. We'd completely lost contact with the rest of the battery and I was wondering what to do when we ran into a group from the 31st Battalion. They had a Colt gun with them, but didn't know what to do with it. The crew had taken a direct hit from a shell and the gun was damaged. We were able to get it working again, using spare parts from our kit, so we were back in business. Just in time too, as a German attack came in right about then. There was another gun over on the other side of the crater, I haven't a clue who they were, and we caught the Jerries in a cross fire. We held them up for a while, but there were just too many of them. Eventually, we had to fall back. The other gun didn't make it."

"We stayed with the 31st Battalion for the rest of the battle. Sometimes, we were attacking, sometimes defending. It went on for days and eventually I stopped caring. I lost my whole crew there and had to quickly train a couple of infants to work the gun with me. We were supporting an attack one morning when there was a blinding flash right in front of us."

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“I guess I was one of the lucky ones that they were able to get out. Most of the other wounded just died where they lay in the mud. I was unconscious for hours, but finally came to on my way back to the field hospital. My left leg was hurt pretty bad. No bones were broken, but I had a bad rip in my thigh. On top of it all, I was just plain worn out. All told, it was enough to keep me out of the line for almost three months.”

“I joined the Brigade again in late July. They were still in Flanders, but things were pretty quiet. The organization had changed a great deal during my absence. We now had five batteries, the Eaton and Yukon batteries having arrived from England. The Colt guns were gone, finally being replaced with Vickers guns. The Colts had also been withdrawn from the infantry battalions, but they got Lewis guns in exchange. Probably the most significant change for them was the withdrawal of that aid-to-the-enemy the Ross rifle. They were now all carrying shiny new British Lee Enfields.”

“I went back to my old battery, but couldn’t really settle in. There were very few people I knew. The casualties at the St Eloi Craters had been devastating and most of those who did survive were killed either at Sanctuary Wood or Mount Sorrel. All the Officers were new and I didn’t really hit it off with any of them. The 4th Division was just arriving in France and the word came round that they were looking for experienced machine gun NCOs for their brigade machine gun companies. I figured the time had come to say goodbye to the Motors, so I put my name in and off I went. It got me a promotion to full Corporal to boot.”

“I was assigned to the 11th Infantry Brigade Machine Gun Company where I took over a Vickers gun. We entered the line in late August as part of a mixed up organization called “Franks’ Force”. There were Belgians, Australians and British units all under command of some British General called Franks. The other three Canadian divisions headed off south to the Somme. God, am I ever glad we missed the first part of that show. I guess it was a real blood bath, especially for machine gunners.”

“We spent some time at the St Omer training area in September, then headed off to join the rest of the Canadian Corps on the Somme. We got there just as what was left of them was being pulled out of the line. I think it was the 10th or 11th of October when we relieved the 3rd Division. We came under command of some British outfit, I think it was the 2nd Corps, and started getting ready for an attack on a place called Ancre. We had a couple of days of decent weather then it started raining and it looked like it was never going to stop. The trenches became knee deep in mud and the dugouts all flooded. We had to burrow under the parapets like ground hogs to get out of the rain. We stopped doing this after a while, though, because the shelling caused cave ins and we were losing too many men. I was trapped in one myself for a while.”

“The offensive finally got off about two weeks later. I was supporting the 102nd Battalion at the time and their objective was a section of the German line known as Regina Trench. All of the other Canadian divisions had had a go at this position and been beaten back so we were expecting the worst. As it happened things weren’t too bad. Our Artillery did a good job of cutting the German wire and then provided a walking barrage ahead of our troops. We manned strong points and supported them with overhead fire while the battalion machine gunners went forward with their Lewis guns. The Battalion had their objective secured within 15 minutes of zero hour, then we moved forward to help them repel the inevitable counter attacks. The Germans tried to take the trench back several times but each time out artillery got the best of them.”

“We held that piece of trench for several days. 10 Brigade on our right had a few problems and it was several days before they were secure on a line even with us. Once they had consolidated, we all got ready for another big push. We were all rather anxious to get moving. The rain hadn’t let up much and the constant bombardment of the area, first by us then by the Germans, had reduced the trench line to a mere depression in the chalky soil. There was garbage everywhere and bloated bodies all over the place; too many of them wearing the blue patch of our 2nd Division. The



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attack was postponed several times because of the weather, but we finally got going during the second week in November. We were still supporting the 102nd Battalion and carried on as we had before. The Germans concentrated their artillery on our gun positions, though, and our casualties were heavy. I took a piece of shrapnel in the shoulder and was evacuated later on that day.”

“The medics had me patched up in no time and I rejoined the company about a week later. The offensive was over by this time and our Brigade had advanced almost half a mile. The weather had turned cold and there was snow and sleet mixed with the rain. Just surviving was a major effort. We were always wet and most of us suffered from trench foot. Every time the temperature dropped below freezing, our clothes froze. Our greatcoats knocked against our ankles and made walking extremely painful, unless we had thought to pin them up before the thermometer dropped. The 72nd and 85th Battalions had it particularly bad. They are highland battalions and when their kilts froze, it made a bloody mess of their legs. Because of the conditions, they didn’t leave us in the front lines very long but kept rotating us around. The nearest billets were eight miles back, though, so even being relieved was exhausting work. The Division was finally pulled out of the line near the end of November and we joined the rest of the Canadian Corps not far from where we are right now. I tell you, never in my life have I been so glad to leave a place.”

The Old One lit another cigarette and was about to continue when the gas curtain was thrown back and a sentry stuck his head in and said “stand-to.” One by one the men heaved themselves to their feet, picked up their rifles and made their way out the entrance to their predetermined positions. Signallers, runners and gunners alike, they all stood alert during that critical hour straddling first light.

Stand-to over, the hum drum routine of a day in the trenches began. First, there were the compulsory ablutions, then, breakfast followed by a general clean up. The shelling was light on both

sides and only occasionally did it interfere with the work parties repairing damage caused by previous barrages. The young private sat behind the Vickers taking his turn “on the gun.” The day was warm and the air was still. Suddenly, he felt very, very tired. “I’ll close my eyes for just a moment,” he thought.

The next thing we knew he was being rudely shaken back to consciousness by the lance corporal. “Don’t let the Old One catch you catnapping like that,” the NCO admonished. “He’ll tolerate a lot of things but sleeping on sentry duty isn’t one of them.”

“I wasn’t really sleeping,” the soldier answered. “I was just resting my eyes a bit.”

“Well don’t let him catch you at it. He’ll have you up on charge for sure,” the lance corporal warned, speaking over his shoulder as he headed for the dugout.

The young soldier, now very alert, continued his vigil. Soon, however, the old weariness returned. He started looking for things to occupy his mind. He counted all of the sandbags around the position, then gazed out at the barbed wire, counting the pickets. Past the barbed wire was the German line, devoid of all visible signs of life. “I wonder what it’s like over there,” he said to himself, craning his neck for a better look. Without realizing what he was doing he slowly raised himself higher, exposing his head and shoulders over the edge of the parapet. Everything seemed to happen at once. The Old One appeared out of nowhere, grabbed him by his web belt and hauled him down just as the sniper’s bullet cracked the air where his head had been.

As he slowly got to his feet and brushed the dirt from his battledress, the realization of how close he had come to death overcame him and he began to shake. “Th-th-thanks,” he said to the Old One.

“Your lucky I happened along,” the NCO replied. “You wouldn’t have been the first gunner I’ve lost to a sniper’s bullet. You always have to

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assume that there is a sniper watching your gun pit just waiting for you to stick your head up. I remember one day last year, just after we took Vimy Ridge, when I lost two men in one day. We were supporting the 54th battalion that lay on the edge of the Bois De La Folie just south of Givenchy. The Jerries were on the run by then but they left a pretty effective rear guard behind. Yep, you've got to keep your head down whenever you're near a Vickers gun in the front line; no matter how quiet things are."

"They told us all about Vimy Ridge during our training at Aubin-St. Vaast. I guess that was some show," the young soldier replied, rapidly regaining his self control.

"I don't want to distract you while you're on sentry," the old One replied, "but remind me after stand-to tonight and I'll tell you all about it."

That evening, after stand-to, the old One made good his promise. The scene in the dugout was similar to that of the night before. The signaller sat watching his telephone, next to that necessity of trench life, the "Tommy Cooker" and its billy can of water. This time there were no shapes stretched out on the bunks. The entire section, except those on duty, were awake and patiently waiting. The Old One didn't often talk about his experiences and they didn't want to miss a word of it.

The Old One took a gulp from his mug of tea then began. "Let's see now, Vimy Ridge would have been a year ago last April. It seems a lot longer; so much has happened since. I was a sergeant by then and still with the 11th Brigade Machine Gun Company. The actual battle wasn't really that much compared to some of the others we've had. The thing that impressed me the most was the preparation for it. We'd moved into positions just east of the ridge right after they pulled us out of the Somme, near the end of November 1916. The rest of the Corps had been there for about a month and a half and were well settled in. Our company spent a lot of time in the rear areas training. Brutinel was a full Colonel by then and he sure had the Corp Commander's ear. He had a free hand with the machine gun

companies and he was always dropping in to see us, wanting us to try new techniques, especially involving overhead fire. We did a lot of harassing shoots mostly at night working off maps. We worked a lot with the other companies and sometimes with the Motors. I guess we were already starting to act like a separate Corps with Brutinel as the Commander, even though it wasn't official yet. Actually it led to a lot of hard feelings. We were all on the official strengths of different infantry units. They were only too happy to have us and our guns supporting them when the going got rough but they regularly forgot about us when making up their promotion lists. You young fellows who came directly into the Corps don't realize how good you've got it."

"We didn't spend all our time training though. There were quite a few raids and patrols and we supported most of them in one way or another. There was one big raid in early March that involved the whole division. What a disaster that was. For five days in a row the infantry got ready to go over the top just to have it cancelled at the last moment. On the day that it actually went it was, in fact, cancelled but the word only got to the 10th Brigade and most of the Artillery. 11 and 12 Brigade went over the top with very little artillery support and got cut to pieces by the German Maxims. The wind shifted and blew our own chlorine gas back on us so we couldn't support them the way we would have liked to. I don't know how true it is, but the rumour was we had almost 700 casualties that morning."

"As we got closer to the attack on the Ridge itself things got very hectic behind the lines. There were railways 25 feet underground leading up to the front lines, pipelines and reservoirs for water and ammo dumps with tens of thousands of tons of ammo in them. We stepped up our harassing fire programs and were actually part of the preparatory bombardment. This started three weeks before the actual assault, I think. I worked closely with the Artillery batteries. They would fire all day and we would fire all night. We engaged the same targets at night that they did during the day. That way we were able to keep the Jerries from repairing the damage the guns

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had done. We must have fired millions of rounds that way.”

“The actual attack went in at 0530 hours on 9 April. Conditions were perfect from our point of view. The temperature had dropped during the night and there was a stiff breeze blowing snow and sleet right into the German’s faces. The artillery was so loud we couldn’t hear each other talk. There were 150 Vickers guns firing continuously throughout the whole thing. We laid down a wall of bullets 400 yards in front of the infantry and kept it moving on a timed programme.

“I thought there were over 300 guns at Vimy Ridge,” one of the soldiers interrupted. “There were,” the Old One replied, “358 to be exact, including the four companies from the British 5th Division that were attached to us. They weren’t all involved in the barrage though. Some went right in with the infantry. A Sergeant I worked with at Aubin-St Vaast was commanding a section of guns with the 8th Company supporting the 1st Canadian Mounted Rifles. He got to the Arras-Lens road before they did. Claimed he killed over 100 Germans while the CMR were still getting into position. One gun caught an enemy battalion headquarters trying to withdraw and really gave them what for.”

“10th Brigade had a little trouble with the Pimple, a piece of high ground at the north end of the ridge, but by 12 April the whole thing was ours. That battle was the birthplace of our corps. We were the real heroes as far as the infantry were concerned. They said that the crack of our bullets going over their heads was the most comforting sound on the battlefield.

“We took a lot of German prisoners and they had a few comments of their own about us. Some of them spoke English and they told us that they had orders not to take any Canadian Machine Gunners prisoner. That was how bitter they were against us. They said that during the last three nights before the attack it had been next to impossible for them to bring up supplies or evacuate their wounded and during the attack it

was impossible for them to man their parapets as long as we were firing.”

“It was right after Vimy Ridge that we got the word that authority had been received for the formation of a separate Machine Gun Corps. This didn’t really change anything down at our level but it was good for our morale. Brutinel became a brigadier-general and was the official Machine Gun Corps Commander but we didn’t form the companies into battalions for almost a year.”

“I left the front for a while in 1917 and worked as an instructor with the Machine Gun Wing of the Canadian Corps School. Consequently I missed out on the Scarpe battles and the Passchendaele show. I spent the whole winter at the School then moved to the Corps Reinforcement camp when they set up the Machine Gun Wing there. It was an administrative job. I guess they figured I’d done my share of fighting. I suppose I could still be there now if I’d wanted to but frankly I got bored. It was last March when I finally got back into action. The Germans had broken through between the British Third and Fifth Armies and the Motors were withdrawn from the Vimy positions and thrown in to plug the hole. Brutinel must have been proud because that was the sort of employment he had envisaged for them from the start. At the time, we didn’t know anything about the breakthrough but we could tell something was up by the number of reinforcements they were asking for. Then one day General Brutinel came through. With him were a bunch of British Horse Guards who had been removed from in front of Buckingham Palace, given a crash course on machine gunning at the School and were on their way to join the Motors. Well I thought to myself, they must really be scraping the bottom of the barrel. I figured the Corps needed me so I packed my kitbag, added my name to the list and climbed aboard the train taking the Horse Guards forward. Suppose officially I was AWOL but in all the confusion no one noticed.”

“We headed south to Amiens then east to the front. The front didn’t really exist between the Scarpe and the Aise River. The Germans had

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advanced 20 to 30 miles in some areas and nobody seemed to know exactly what was going on. We arrived at Brigade Headquarters, in a barn just east of Amiens, where we were met by Lieutenant Colonel "Tiny" Walker, the CO. He gave us a quick briefing on the Brigade organization and then turned us over to the Sergeant-Major who broke us into small groups. The Brigade had changed little since I left it in 1916. It still consisted of five batteries. Each battery had two sections of two cars. The sections were commanded by lieutenants and the batteries by captains. Altogether we had 20 cars. Eight were the same as we'd had before while 12 were a new lighter version. Each car carried two guns and 14 men. The Brigade also had a section of motor cyclists who acted as scouts, dispatch riders and signallers.

"We moved forward that night and my group was assigned to B Battery. We were into the fray right away. I took over command of a car and hardly had a chance to talk to the crew before we were on our way. The battery had lost a car earlier in the battle when an ammo dump blew up right beside it, so there were only three of us. The other two formed a section under a lieutenant, I forget his name, and I worked by myself. Our cars would do 25 miles an hour and we needed every bit of it. We were all over the Fifth Army front helping out wherever we could. Our orders were specific: to get in touch with the enemy, kill as many as possible and delay his advance. Sometimes we worked together with one or two of the other batteries but more often than not we worked as sections or individual cars. Often we fought dismounted."

"Supplies were a problem because Colonel Walker never knew exactly where we were and we couldn't always get back to him. Often we just helped ourselves to whatever we could find. I remember one day we were moving back for a quick rest after a bit of action. I had lost a gun in an artillery barrage and one of the other cars had one they couldn't get to work. We were also very low on ammunition. Suddenly we came upon a British Ordnance Depot in the process of packing up to move. The Captain stopped his car and taking five of us with him, walked into the

building. He walked up to the British major who seemed to be running things and said, 'I need six Vickers guns and 20,000 rounds of ammunition.'

The Major looked at us and said, 'Who are you and where's your authority?'

'Haven't any', the Captain replied, 'We're fighting a rear guard action and the enemy is pressing.'

'Can't issue guns or ammunition without proper authority from Corps Headquarters,' the Major countered.

The Captain looked at me, drew his revolver and said, 'This is my authority, go and take what we need.'

'You can't do that,' the Major stammered, 'I'll place you under arrest.'

'Not if you're dead, you won't,' The Captain replied, 'now get out of our way.'"

"That settled the issue once and for all and the ordnance men helped us load the stuff onto our cars."

"During the second week in April we were ordered to withdraw and rejoin the Canadian Corps. The Brigade had been in action for 19 days without a break. General Brutinel spoke to us and told us what a great job we had done. The cost had been high, however; 75% casualties."

"We went into reserve while we reorganized and rebuilt the Brigade. Then one morning, I was called to the CO's office. The manner in which I had left the reinforcement unit had finally caught up with me. Colonel Walker was pretty good about the whole thing. He said that the CO of the Reinforcement Camp wanted me sent back to face charges but he would write him a letter and try and cloud the issue. He thought it would be a good idea if I left the Motors though. It would make it harder for them to track me down if they decided to push the issue. He said that General Currie had just authorized the formation of a third company in each of the divisional Machine Gun battalions and they were recruiting people

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from the infantry battalions. He knew the CO of the 2nd Battalion and he would arrange for me to join them. That's how I ended up here."

For a long moment no one spoke. The dugout was stuffy and the lone candle was almost burnt out. The shelling outside had all but stopped. Suddenly the silence was broken by the buzz of the field telephone. The signaller answered it, spoke a few words then looked at the Old One and said, "stand-to, Sergeant. Something happening in front of the 26th Battalion."

Everyone moved at once, scrambling to get to their positions, none of them wanting to be caught in the dugout during a raid. Suddenly the shells started falling thick and fast. The young soldier quickly made his way to the machine gun position. He entered the pit and froze, aghast at the scene in front of him. The shell must have landed right on the parapet. The lance corporal's inert form was sprawled across the ammunition boxes with the headless form of the other gunner crumpled at his feet. For several minutes he stood there. The Old One was shouting commands from his command position and the other gun was firing steadily. Artillery shells were raining down all along the trench line but he was oblivious to it all.

Suddenly the Old One appeared. He grabbed the soldier by the left shoulder, spun him around and slapped him hard, snapping him out of his trance. "26th Battalion's in trouble," he shouted. "They need all the fire we can give them on target number four. Where's your range card?"

While the private searched around the rubble for the piece of paper, the sergeant pulled the lance corporal's body off the ammo boxes and checked the bedding of the tripod. Satisfied that it was still solid, he looked up and seeing the piece of paper in the soldier's hand shouted, "what's the data for number four?"

By this time Very lights were going up all along the line. Under the pale green light the soldier could just make out the figures. "23 up and 10 right," he shouted, now in full control of himself.

"Set the clynometer," the Old One chanted as he opened the back cover and then reached forward to set the bar foresight. He swung the gun onto the aiming stake as the private slipped the clynometer into its slot. He slowly turned the elevating handwheel while the private gazed at the bubble on the level. "On," the private shouted and lifted the clynometer clear. The Old One snapped the back cover down and said: "You fire, I'll load."

The soldier jumped behind the gun and grabbed the traversing handles with both hands. Simultaneously he lifted up on the safety catch with the second finger on each hand and pressed the thumb piece with both thumbs. The gun reacted instantly with a long burst. The battle didn't last long. It wasn't an attack, just a raid and the German hordes were gone as suddenly as they had appeared. The Old One was feeding the fifth belt into the gun when the runner appeared relaying the order to cease fire. It was a warm night and the smell of cordite hung heavy in the air. The young soldier wiped the sweat from his brow and suddenly felt drained of all strength.

"Well you've survived your first battle," the Old One said to him, "it wasn't that bad now was it?" "Take over here would you," he said to the runner. "And see if you can do something with these bodies. I'll send a couple of the lads up to help you in a minute. Come on back to the dugout with me," he said, his attention turning to the young soldier behind the gun, "I think we've both earned a tot of rum."

### **One Morning on the Winter Line**

The scene now shifts 800 miles south and advances 26 years to early February, 1944. The Storch reconnaissance plane banked hard to the right and lined up with the snow covered peaks of the Maiella Mountains. Behind it, the newly risen sun peaked over the shimmering blue waters of the Adriatic and began melting the frost from the few remaining window panes in the port town of Ortona. The pilot gazed right and left, looking for the tell-tale signs that would indicate major movement of troops or reinforcement of the forward Canadian units during the night. He

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carefully scanned the broken trench line to his left and saw nothing unusual. Ever vigilant for the marauding squadrons of Kittyhawk fighters of the Desert Air Force (more than one reconnaissance pilot had let his guard down for a moment and failed to return from a mission), he craned his head over his right shoulder and caught a glimpse of the trenches of the 1st Parachute Division. "Good troops, those" he thought. "Loyal to the Fuhrer and the Fatherland." Before him loomed the town of Villa Grande. He kept well to the north of it and swung into a southwest heading and followed along the "Winter Line" north of the Orsogna-Ortona road. Before long, he passed low over the 334th Infantry Division's forward units, manning Fontegrande Ridge. Two miles ahead was Orsogna, the western limit of his patrol. He swung in low for a close look at the swastika flag flying over the town hall and then headed for home. It was time for breakfast.

As the plane banked to the right, the sun shone on the underwing markings leaving no doubt as to its nationality. The two machine gunners gazed over the lip of their trench and the taller one said "See, I told you it was a kraut. I can always tell by the sound of the engine."

"He's just a reconnaissance job," the other replied. "It's those Focke-Wulfs I don't like. With these clear skies, I expect every plane in Italy will be up today. I don't know which I prefer, that or the rain. When they told us that we were going to Italy, I visualized sunny beaches and the like. Hell, this place is as bad as Flanders must have been during the first show."

As they talked, the two men worked away reassembling their Vickers gun. It had become a routine with them since they had first entered the line. Every morning, immediately following stand-to, they stripped it down completely and gave it a thorough cleaning. As they slapped the last pieces together, the slowly rising sun began to make itself felt and their spirits rose considerably. With an ease brought on by continuous practice, the tall one reefed back on the crank handle while the other fed the belt through the feed block. Number 3 gun was back in action. "Slip over to number 4 and let them know we're back in

action, would you, so they can start their morning clean up," the tall one said. "Then you might as well go back to the bunker and get cleaned up and fed. Doug should have the tea made by now. I'll take the first shift."

As his mate slipped out the back of the trench and over to the other gun in the section, the gunner carefully gathered up his tools and, after wiping them off carefully, returned them to the tool box. He checked to make sure the gun was firmly locked on its SOS task, then spread an empty sandbag on one of the more solid looking lumps of mud in the bottom of the trench and sat down to light a cigarette. He savoured the warmth from the match for as long as possible and then cupped his numb hands over the glowing end of the cigarette. He drew long and slow and felt the comforting heat against his palms. Eventually, he pulled the collar of his greatcoat up over his ears and once again stuck his head over the edge of the trench and gazed out over the Italian landscape. His eyes followed the line of German trenches 600 yards away and dwelt momentarily on the burnt out hulk of a Panzer IV, a reminder of a much more violent day. To his left front, in the far distance, stood the Maielle Mountains, their snow capped peaks rising up in splendour. Off to his right stood the town of Orsogna, seemingly deserted except for the German flag fluttering in the breeze. It was the same breeze that cut through his greatcoat like a thousand needles. Shivers ran up and down his spine. His gaze returned to the gun sitting on its tripod like some brass idol awaiting tribute.

"Old Hiram Maxim and Albert Vickers sure knew what they were doing when they put you together," he said to himself. "You may be heavy and awkward to move around with, but you sure are dependable in a tight spot. Heck, come to think of it you're not that much of a pain to move around anymore, now we've got the universal carriers." He thought back to his machine gun training in England and the stories the WWI gunners used to tell. He remembered that Veteran from the British 100th Brigade Machine Gun company, who claimed to have been part of the very first machine gun barrage on August 23-24, 1916. He claimed they had fired

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continuously for over 12 hours and that the 10 guns fired just 250 rounds short of a million. Every spare Train in the Company as well as two companies of Infantry, had been employed full time carrying ammo and water for the guns.

“That must have been something to see,” he said aloud and gave the Vickers an affectionate pat on the barrel casing. Suddenly, the gunner was jarred from his daydream by the arrival of his partner, now clean shaven and well fed. “I’ll take over now,” he said. “Go on back to the bunker for a while.”

50 yards to the rear Lance Corporal Doug Riggs sat on a wooden bench with his hands around a tin mug of hot tea and gazed at the candle on the crude table in front of him. Beside him, in the bunker, the section commander finished the last of his breakfast and said “It looks like the weather might be decent today, Doug, so I think we should do a little work on the communication trench. That rain has really made a mess of things, hasn’t it.”

“It sure has,” the young gun commander replied. “I think we should muck this place out a bit too. If we don’t keep it clean, we will end up with rats as bed partners for sure. It’s bad enough having to put up with you guys.” A chuckle vibrated around the room.

“If that’s the way you feel,” the battle dressed figure across from him said, “you can always sleep in the carrier.”

“No thanks,” he replied, “besides somebody’s got to take care of the rest of you.”

The conversation was interrupted by the arrival of the gunner from number 3 gun followed closely by Sgt Lovette, the platoon sergeant. “Morning, Algje”, the section commander said; “Just in time for tea. Sit down and have a cup.”

“O.K.” came the reply, “but I can’t stay long. The platoon commander has gone off on OP and I have to stay close to platoon HQ. I just dropped by to warn you to stay close to your radio and make sure you’ve got lots of ammunition handy.

We have been given an alternate task of harassing Jerrie’s rear areas. Mr. Neil’s going to pick some likely targets and we will be registering them this morning. The two sections are too far apart for me to control so the data will come direct to you from the OP.”

“No problem,” answered the section commander, “we’ll be ready. You had better send a couple of men back to the carriers, Doug, to bring up a couple more cases of ammo, just to be on the safe side.”

Two hours later, Riggs was leaning against the side of the trench taking his turn “on the gun.” Back in the communication trench his number two and number three were working away filling and arranging sandbags. His driver was helping the guys from number four gun clean out the bunker. Through his binoculars, he carefully studied the German line. No sign of movement anywhere; but then there seldom was during the day. Most of the action took place at night. The German artillery had lobbed a few rounds over them, aimed at their rear areas, about an hour earlier and one had dropped short wounding a couple of the Cape Breton Highlanders, but other than that it had been quiet. He put down the field glasses and leaned back, content for the moment to relax and enjoy the sun.

Two miles to the east, Lt Fred Neil cocked his helmet to the right in an effort to keep that same sun out of his eyes. The sun was shining right into the OP. The camouflage net fluttered in the breeze, throwing eerie shadows across his shoulders where the green and gold flash of the Princess Louise Fusiliers was perched above the maroon patch of the 5th Armoured Division. Below him stretched a wide panorama of olive groves, orange trees and scattered farm buildings. The area was devoid of life; a no-man’s land. He carefully lifted his binoculars, his fingers shielding the lenses from the sun’s rays, and studied the area north of Orsogna. “Well, I’ll be - -,” he muttered half to himself. He turned to his signaller and handed him the binoculars saying, “have a look at this. The Jerries are sure getting cocky these days. In broad light, yet.” Moving

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southward along the road, was a column of infantry.

“I make out about 30 of them, sir,” the signaller said, “and – wait a minute yeh, they’ve got five, no six mules with them. They look heavily loaded too.”

“Right” says the officer, carefully studying his map. “I figure they should be well within range in about 10 minutes. Have the platoon stand to while I work out the data.”

Back on the position, the section commander was trying to figure out a way to drain off the three inches of muddy water in the bottom of the communications trench, when the signaller stuck his head out of the bunker and shouted “fire order coming through, Sarg.”

“Take post,” the sergeant yelled and dove into the bunker scooping up his notebook from the table on his way to the radio. He flipped to a fresh page and jotted down the first letters of the words in the buzz phrase - LAZY ELEPHANTS LAY DOWN TOGETHER AND SLOWLY ROLL OVER.

Fifty yards forward, Doug Riggs reefed back on the crank handle to fully load the gun, then swung it off the SOS and onto the zero line. Out of nowhere, the other two Fusiliers appeared and took up their regular positions by the gun. Suddenly, the Sergeant yelled “RIGHT 200 - ELEVATION 2800 - LAY.”

As the number two repeated the command, Riggs carefully set the data on the dial sight. He spun the elevating handwheel, tapped the traversing handles and as the sight lined up with the aiming stake shouted “ON.”

The number four gun commander echoed Riggs’ “ON” and the sergeant continued. “SEARCHING FIRE WIND RIGHT 15 MINUTES RAPID WAIT MY COMMAND.” Again the number twos repeated the command, then all was quiet.

Suddenly, there was a burst of fire off to their right as numbers one and two guns started firing, 300 yards to the east. Riggs watched their tracers arcing skywards and disappearing over the town. “Stand by, guys,” he muttered. “That’s one section firing, we’ll be next.”

The words were barely out of his mouth when the sergeant yelled “FIRE!” Riggs pressed the thumb piece with both thumbs activating the lock mechanism causing the firing pin to strike the primer of the mark 8Z cartridge. The 40 grains of nitro-cellulose powder flared and sent the 175 grain bullet on its way, clearing the muzzle at 2,550 feet per second. It quickly reached its culminating point 160 feet above the town, then began its steep descent adding to the “hail of lead” raining death and destruction on the German column. It finished its journey, abruptly, in the thigh of a young German soldier cringing in terror, in the ditch.

The young German leapt up and hobbled back along the ditch looking for cover he knew he would not find. Around him was total confusion. There was no sound of firing, only the hollow splat of bullets hitting the muddy road and ditch. He heard the braying of wounded mules and the screams of wounded men. He tripped over a dead comrade and struggled to his feet, now in a complete state of panic. Suddenly, he lurched forward, face down in the mud and moved no more. The war was over for him.

In the OP, Lt Neil smiled and turned to his signaller. “Tell them to cease fire”, he said, “anyone still alive down there deserves a break.”

Back at the gun position, Riggs returned the gun to the half load and relaid it on the SOS target. “I wonder what that was all about”, his number two asked.

“Don’t ask me”, Riggs replied, “no one ever tells me anything around here. Why don’t you go back to the bunker and put the tea on.”



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## Epilogue

The Old One survived World War I and went on to serve in the Veteran's Guard during World War II. He died, as all old soldiers eventually must, confident in his mind that the Canadian machine gunner was one of the best in the world. Lance Corporal Riggs also survived his war. He lived to mourn the passing of the era of the Vickers gun and the Machine Gun Platoon. He watched the number of guns, in each battalion, grow while the number of people who could use them shrunk. He saw GPMGs used where a C2 could have done a better job and HMGs left in zulu harbours because the company couldn't afford the riflemen to man them. He started his own crusade to reintroduce machine gun expertise. In 1974 he published an article in this Journal titled "Whatever Happened to Machine Guns?" Shortly afterwards he was invited to join the Tactics Doctrine Board.

The doctrine produced by this board was a combination of the lessons of the past adapted to

the needs of the future. In their deliberations they paid particular attention to the fact that:

- the number of guns in each battalion has increased considerably;
- the anti-armour role of the HMG has taken on a new importance;
- machine guns are no longer manned by a few specialists; and
- the command and control organization provided by the Machine Gun Platoon has disappeared.

The findings of this board have formed the basis of the tactical doctrine taught at the School. In the next edition of *The Infantry Journal* I will elaborate on and discuss them. Until then I suggest you have a good look around your unit and identify your advanced machine gunners. We have trained 44 of them so far and if you are lucky you might have one in your unit. Next time you are wondering what to do with your guns, ask one of them. We've put a lot of effort into their education and figure we've done a pretty good job of it.

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# The Rise, Fall, & Rebirth of The 'Emma Gees' (Part 2)

by Major K.A. Nette, PPCLI

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*Infantry Journal Editor's Note: - Part 1 of this article was published in Volume 8 of the Infantry Journal. In Part 2 the author presents the roles, characteristics and principles of machine gun employment in an entertaining as well as educational manner by developing a fictional plot. In areas where the CFP's and the Tactics Doctrine Board Study on the Employment of Machine Guns are not explicit, Major Nette has used his own extensive experience in elaborating on the techniques explained in this article.*

The war had been over for two months and it was time for Canada to honour her heroes. The ceremony that afternoon had been a solemn affair. Five people had been awarded their country's highest decoration, and, immediately following, had attended a memorial service for seven comrades who had not lived to receive their awards in person. Now, however, it was a time for celebration and the ballroom at Government House was alive with gala uniforms, distinguished gentlemen in tails and ladies in long gowns.

The colonel with the gold aiguillette on his right shoulder broke away from the official party. He had been on his feet all day and now just wanted to sit down for a while. He recharged his glass at the bar then slipped unnoticed down a hallway and into the library. As his eyes became accustomed to the dim lighting, he noticed a young major sitting in one of the heavily padded chairs, his eyes glued to the medal in his right hand.

The Colonel cleared his throat and said; "excuse me, do you mind if I join you?"

"Not at all," the Major replied as he stood up.

"Sit down for Gods sake," the older officer said. "You are the hero tonight. You don't have to stand for anyone."

"I'm not, you know," came the reply. "That's why I had to get away from all those people. I don't think I could have stood one more person congratulating me. I really didn't earn this decoration. It belongs to two others; one who died out there and the other who may have never lived."

"Well now," the Colonel said, "that sounds like an interesting story. Why don't we both sit down and you can tell me all about it."

"Well," the younger officer began, "I missed the first part of the war. I'd been stationed in Germany for two years but was attending Staff School in Toronto when hostilities broke out. The course was almost over and, as nobody was interested in CFAOs or management techniques with a war on, they finally gave up and sent us all back to our units. I tried to get back to Europe right away but there was just no way. I sat in Trenton for two whole weeks and, by making a complete nuisance of myself every day, was able to scrounge a ride on one of the cargo Hercs that were flying during the cease fire. I have no idea where we landed in Europe. It certainly wasn't Lahr and it took five hours in the back of a five tonner to get to the Brigade Admin Area. I was there for about two hours when the Battalion Ops Officer's jeep arrived to get me. I realized then that something special was up as normally a lowly captain would just hitch a ride with the next DP run."

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The ride to the battalion concentration area took about 45 minutes. I dozed a bit on the way but didn't really get any rest. The battalion was concentrated deep in a thick woods and as we turned into the IN route, all I could think about was finding a sleeping bag and getting about 12 hours sleep. The driver delivered me to the Command Post where the sentry, recognizing me motioned me in. Inside, I bumped into the 10, an old friend of mine. He welcomed me back and said: "Niner's waiting for you in his van, it's just out back."

I found the van and knocked on the door. The Ops Officer opened it and, from behind him, I heard the CO's voice say "Come in John. We were just talking about you."

I sat down on the bunk between the two of them just in front of the map board. The Colonel didn't waste any time on small talk and got right to the point. "I know you are tired," he said, "but I'm afraid I have to throw you directly into the breach. I want you to take over A Company right away. Major Spencer has gone back to Canada to command one of the mobilization battalions and his 2IC, who took over from him, was evacuated last night with acute appendicitis. Your arrival has been a God send as I just don't have anyone else to send up there. All three platoon commanders are very junior and right now, it's the CSM who's holding the lot together. As you've probably guessed by now, they aren't here in the conc area with us. They are about 50 miles from here on what might become one of the most important missions of the war."

"Now here's the overall picture," he continued, gesturing to the map. "As you know, we have cease fire in effect. Don't kid yourself, though, it will never hold. The Fantasians are just using it as a opportunity to regroup and resupply their front line units. We will be back at it again as soon as they are ready; probably without warning. We expect that they will attempt to establish their bridgehead here (he pointed to the map) and when they do, we will be waiting for them, here." "There is a chance, however, that they might just feint here then cross in this area (he pointed off the upper right corner of the map). There is

nothing up there to stop them and once across, they will have a clear run down the valley where they can drive a wedge between 7th Corps and the Communications Zone. I don't have to tell you what that would mean."

"Our brigade has been given the secondary task of guarding against such an eventuality. We have positions recced here (again he pointed to the map) and there are work parties digging them in now. The problem will be disengaging from our primary positions and getting up there. That will take time and, if left unopposed, the Fantasians might well beat us to our positions and catch us in the open."

"Can't the Air Force delay them while we redeploy?" I asked.

"Possibly, but we can never count on having air superiority and the weather doesn't always cooperate," he replied. "No, we've got to have something solid on the ground to buy time while the rest of us get up there. That's where your new company comes into it. There is one spot about half way up the valley where the enemy can be held up. It's a natural defile with a swamp on the left and a dense forest on the right. The swamp runs to the river and there is a large lake on the other side of the forest, so there is no practical way for them to bypass you. A company is dug in up there now. I want you to get up there right away, take command and buy me the time we will need. That could be anywhere from three to eight hours after your first contact."

The Ops Officer took over the briefing and said: "I'm afraid you are pretty much on your own up there, John - You've got two TOW sections with three launchers each and a patrol detachment from the Recce Platoon. Don't ask for any tanks because we just don't have any to give you. There is an Arty fire plan for the position registered in the FSCC but the guns are not in range. They will be the first to move if the threat develops up in your area and there is a FOO detailed to join you on your position. Your best help will come from the air. Brigade has a squadron of A-10s and some TOW Cobras in direct support and they will head for your area the minute we know for

sure that the enemy is coming your way. I suggest that you arrange to effect some sort of liaison with them before you leave here.”

“That’s really all we have to tell you,” the CO concluded. “We’ve got two RRBs deployed to make sure that we can talk to you at all times and we’ll keep you in the picture as things develop. I can’t overemphasize the importance of this mission. Treat that position like a hard defensive one that you are going to hold for the rest of your life instead of a delaying one. If you have to leave some of your kit behind when you withdraw, don’t worry about it.”

“One last thing,” the Ops Officer interrupted. “The Engineers laid a minefield up there a couple

of days ago and we may be able to release a minelayer and some more mines to you tomorrow.”

I left the CO’s van with my head spinning. This is all happening too quickly, I thought. My own jeep and driver had arrived to get me and he drove me over to A echelon where I checked in with the adjutant and got some combat clothing, a helmet and a sleeping bag from the friendly quartermaster. It felt good to get out of the CF that I had worn continuously for almost three days. One last trip to the CP, where I made arrangements for a FAC to visit me the next day and made some notes on the latest int picture, and I was on my way.

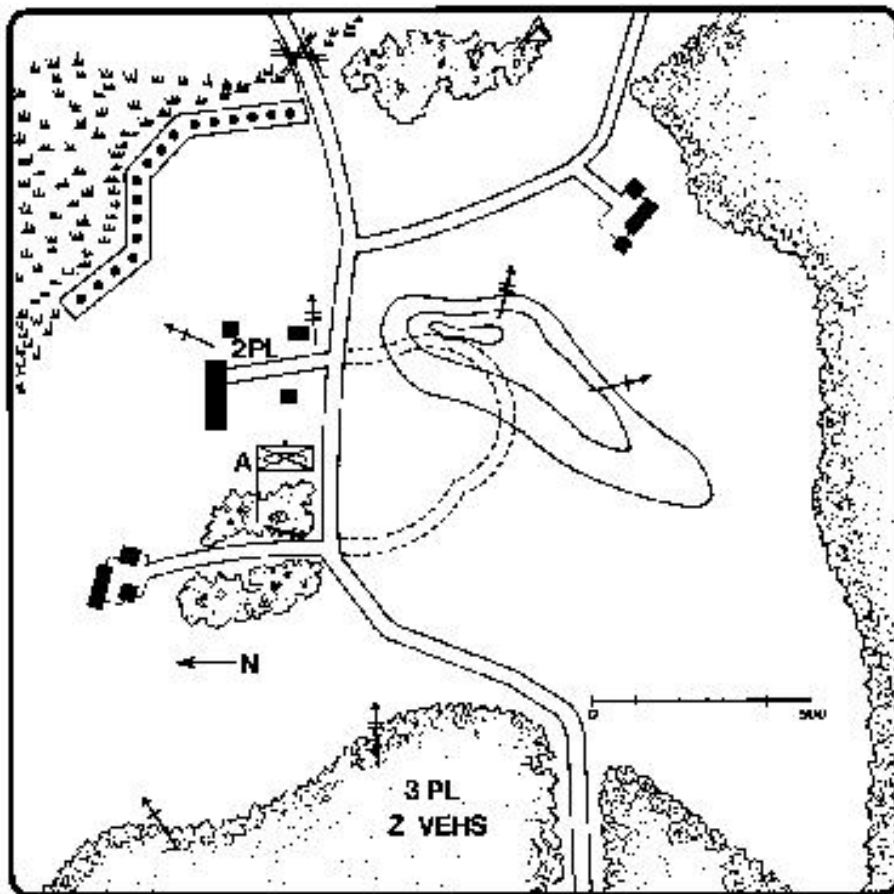


Figure 1. Initial Machine Gun Deployment.

The trip up to A Company took about 90 minutes and, although I was exhausted, my adrenaline was pumping so fast I couldn’t sleep. When I arrived at my new command, I must have

looked like the proverbial death warmed over. The CSM was obviously glad to see me. He poured two cups of coffee into me and gave me a quick briefing followed by a whirlwind tour of

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the position. 1 Platoon was right forward on a small hill with 2 Platoon on their left in a farm complex. Company HQ was behind 2 Platoon in a woodlot. 3 Platoon was in the woods on a hillside, 500 metres behind the HQ. The two forward platoon's zulu vehicles were in the woods with 3 platoon. (See Figure 1.)

The recce det was in a dug in OP well forward and the TOW sections were deployed one on each flank, all three platoons were well dug in and had dismantled one HMG each. When we returned to Company HQ, the sun had almost disappeared and darkness was settling in.

"Excuse me if I appear a little dopey Sergeant-Major," I said, "but I haven't slept for three days. I think it best for all concerned if I put my head down right away. I've got a few points to pass on about the latest int picture and there is still a great deal that I want to know about this position. Why don't you wake me at first light and schedule an O group for 0800 hours."

"Roger, sir" he replied. "If you'll follow me, I'll take you to your hootchie. Your driver has laid your sleeping bag out and I'm right next to you if you need anything else."

"I thanked him and crawled under the utility sheet. I had to force myself to take my boots off and don't remember getting into the sleeping bag."

### **The Return of The Old One**

What it was that awoke me, I have no idea, if in fact I awoke at all. I felt alert and refreshed and was overcome with an urge to get out of my sleeping bag and wander in the night air. I made my way past the Sergeant Major's hootchie and then angled off into the woods, not knowing where I was going or why. Then I saw him. He was sitting under a tree, completely motionless. At first I thought he was one of our sentries and was about to reprimand him for letting me get so close without challenging. Then I noticed that his uniform was the wrong cut and helmet the wrong shape. Fantasian, I thought and began quietly backing away. He slowly got to his feet and

turned to face me, "I've been waiting for you," he said. "Come, we have much to see and so little time."

I stood speechless and studied him carefully. He was dressed in khaki with puttees wrapped to his knees and a World War I pattern helmet on his head. On his lapels were the crossed Vicker's Guns of the Canadian Machine Gun Corps and he wore three faded stripes on each sleeve. His eyes were sunken in their sockets and he appeared very old. There was something ghostly about him and I felt a shiver vibrate up my spine. "Wh-who are you?" I managed to stutter.

"They call me the Old One," he replied. "I have come from the past to warn you about future. A great battle will take place here and it will not go well for you. Turn and look at yourself."

He pointed to the CP behind me and, as I turned around, the scene changed. It became daylight and the smell of cordite and burning diesel fuel hung heavy in the air. The CP was still intact but my jeep, parked next to it, was a smoldering ruin. Near it lay the prostrate form of the CSM and around him, several more bodies. I made out my own figure sitting dejectedly on the ramp of the APC, my head bowed with both hands clasped behind it. On each side of me stood a Fantasian soldier, his bayonet fixed and pointed menacingly at me. In front of me stood an officer, slowly leafing through my field message book. The most depressing part, however, was the large dustcloud along the road and the steady roar of hundreds of heavy tracked vehicles headed, at top speed, for the NATO rear areas.

I turned away from the scene and enquired, "and the rest of the Brigade?"

"Annihilated," came the reply. "Caught in the open on the way to their battle positions."

"But how could this happen?" I asked. "This was a strong position and I only had to hold for a short time."

"You made two fatal mistakes. First off, you underestimated your enemy. You failed to

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appreciate the speed and shock of a mechanized attack. But you could have survived, had you used your machine guns properly. This was your biggest shortcoming. Most of your guns were never deployed and the few that were did not take advantage of their characteristics. You disregarded the roles of these weapons and paid no attention whatsoever to the principles of their deployment. Look again at what the future holds for you then we will return to the present. There are things I would show you and I have little time left before I must return to my own era.”

“As I gazed in awe at the scene of destruction, it slowly faded away and things returned to normal. The smell of battle was gone and the roar of tanks was replaced by the chirping of the crickets in the nearby hayfield. It was all a bad dream, I thought, but the Old One was still there. He slung his Lee Enfield and said, “come.” A note of urgency permeating his voice.

Suddenly, we were standing in the middle of 1 Platoon’s position, deserted except for the two sentries manning the HMG. The Old One walked over to the edge of the trench and gestured for me to join him. “Don’t worry about them,” he said pointing to the two soldiers. They can neither see nor hear us. Now, tell me exactly why is this gun here?”

Taken aback by his abrupt manner, my immediate reaction was to admit that I really didn’t know because I hadn’t sited it. Somehow that didn’t seem appropriate, though. “Because it’s a good place for a machine gun,” I blurted out. The Old One gave me one of those ‘this is going to be harder than I’d expected’ looks and said: “Really now? Pray tell me why.”

“If it wasn’t so dark out you could see for yourself,” I answered, thinking I had an easy out. He waved his hand and suddenly you could see for miles. “Is that better?” he said, mockingly. Deep down inside I knew I was just digging myself in deeper and deeper. I still had a resentful feeling, though. After all, what could this old reprobate possibly know about modern warfare? Why he was probably dead before the APC was invented. I had to say something, though, so

thinking on my feet, I began my explanation. “It is obvious that there are only two possible approaches that the enemy can use to attack this position. The left approach is blocked by the minefield so that just leaves the one in front of us. Anybody using it will be staring right down the muzzle of this machine gun. The gunner has an excellent arc, why it must be close to 180 degrees, and because he’s so high up, he can see for miles.”

For what seemed an eternity, the old man just stood and looked at me. When he finally spoke, his words cut through me like a knife. “An off the cuff answer like that one might get you through staff college but in a real war it will just get you and your men killed,” he said. “What good is a 180 degree arc to a weapon with only 800 mils on it’s traversing bar? Why does the gunner have to see for miles when he will only be engaging targets out to about 1000 metres?”

I suddenly started to feel very humble. “The problem with this position,” he continued, “is that the gun was put here almost as an afterthought. The order was that each platoon would dismount one HMG so it was just plunked down here after the rest of the platoon had been sited. It has had no specific target areas assigned it and none of the likely areas have been registered. I know you are not the one responsible but you are the one who will suffer the consequences unless you take corrective action.”

A terrible feeling of uncertainty began to creep over me. I wondered how many other guns were covering arcs beyond their capability. I began to realize how little I actually knew about machine guns. “What would you do if you were responsible for this gun?” I asked.

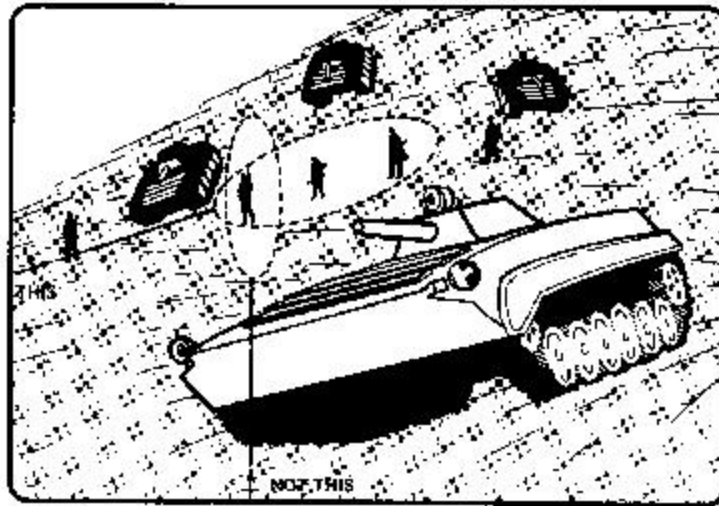
### **Roles and Characteristics**

“Well,” he began, “the first thing I would do is remind myself of the primary role of the HMG: to destroy enemy APCs. Once I was satisfied that this gun could, in fact, be employed in its primary role, I would then determine a specific target area where enemy APCs were likely to appear. Only

then would I look for a place to put the gun. In selecting this site, I would review the six characteristics of machine gun fire and attempt to take maximum advantage of each one. Let's look at these characteristics in relation to this gun here."

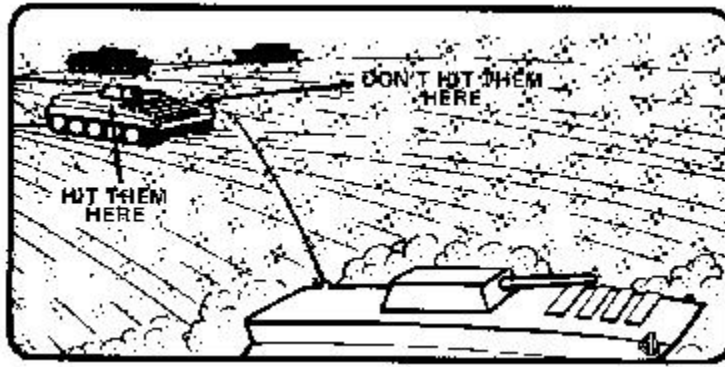
"First we must consider Range. The HMG is accurate to 1850 metres. It is only effective at this range, however, against soft targets. In computing the maximum distance that this gun can be from it's target area we must consider Penetration. Your C44 AP/T ammunition can penetrate the front of most Fantasian APCs out to 550 metres. You notice I said most. There is a problem with

the front of the BMP but don't worry about it for the moment. I will explain how to get around it later. They are all vulnerable from the side out to 725 and maybe a good bit beyond depending where you hit. (See **Figure 1A.**) To get this penetration you need an angle of attack between 30 and 90 degrees. Just hitting an APC once will not necessarily stop it. To assure a kill you will probably have to hit it several times. That is where VOLUME OF FIRE comes in. TRAJECTORY is another important characteristic. This gun's trajectory is very flat. So flat that on level ground you can get grazing fire out to 1000 metres."



**Figure 1A. Glasis.** The front glasis of a BMP is almost flat and most AP ammunition will glance off. On the other hand, the side armour is relatively thin. HMGs must be sited to take advantage of this.

Noting the puzzled look on my face, he elaborated. "That just means that at no point from the muzzle to the target will the rounds rise higher than the height of a standing man. You will notice that because this gun is sitting on top of a hill it does not take advantage of this characteristic. There must be at least 300 metres between the muzzle and the target area where an APC could drive underneath the cone of fire of fire without being hit. That cone of fire leads us into the next characteristic. When fired in bursts, all machine guns vibrate; therefore, each bullet follows a slightly different path. These different trajectories lead to different points of impact on the ground in the target area. We call the pattern these rounds make on the ground the BEATEN ZONE. The size and shape of this beaten zone varies with the gun, mount and range. The HMG is famous for it's long, narrow zone. To take full advantage of it, you have to first anticipate the formation that the enemy will adopt in the target area then site the gun so the beaten zone will catch as many of them as possible."



**Figure 1B. Machine guns should be sited on the flanks.** All machine guns should be sited to hit the enemy from a flank, thus catching as many as possible in the beaten zone.

A hundred questions went flashing through my mind. There was obviously much that I didn't understand about machine guns and here was a chance for me to learn from an expert. Before I had a chance to start picking his brains, however, he continued with his monologue. "I'm not sure how much time I have left with you," he began, "so I will start showing you things in order of priority. First off look at this trench. A simple L-trench, well constructed but suitable only for riflemen. The machine gun simply sits out in front of it."

Suddenly there was a blinding explosion directly in front of us. The gun flew one way and the ammo box the other. "That gun might still be usable," my mentor observed, "but you must admit that it's out of action for the present. Had it been dug down so that the muzzle just cleared the ground it would still be firing."

A good point, I thought I must have all MG tripods dug down first thing tomorrow morning. "That's not quite sufficient," the Old One interrupted.

"How did you know what I was thinking?" I asked.

"That's not important. The important thing is that the gun must not only be low; it must be right in the trench with you, so to speak. Watch what can happen if it isn't." He waved his hand and we were suddenly in the midst of a pitched battle. I was unaware of everything around me

but the only details registering clearly were the actions of the two gunners in the trench in front of me.

I noticed that the tripod was dug down and that the gun was firing steadily. Suddenly it stopped. The number 1 reeled back on the retracting slide handle and then let it go, straining his neck to check the position of the bolt stud. "It's not going forward," he shouted to his partner; "clearing plug 2!"

While the number 1 opened the top cover, the number 2 reached forward to pull the belt clear. Then he hesitated, suddenly realizing that to complete the IA he would have to get out of the trench. The number 1 gave him a reassuring grin and handed him the clearing plug. He slowly took it from him then, after a momentary pause while he plucked up his courage, he heaved himself out of the trench; just as the burst of RPK fire swept the position. He spun around, clutching his chest with both hands, and fell across the gun. The number 1 just stood there, mesmerized.

The vision slowly faded away and the Old One continued with his lecture. "Again the gun is out of action because of an improperly prepared trench," he said. "Had that trench been dug in a U around a sunken tripod platform, the gun could have been serviced without the crew having to expose themselves and it would still be in action. It would also have given them the capability of swinging the gun through 180 degrees in an emergency. Agreed, they would



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have to disconnect the T & E mechanism and the accuracy wouldn't be much but when the enemy is swarming over your position, volume takes precedence over accuracy."

"I mentioned earlier that there was a problem with frontal penetration of the BMP. Watch what happens when one of them stares down the muzzle of your machine gun, here."

Again the battle raged around us but this time the gun was lodged in a proper machine gun trench. Artillery shells were landing in all around us and the whole area was covered with a thick haze. Through a break in the smoke, I could make out a lone BMP, headed straight for us about 500 metres away. I watched the gunner as he carefully layed on the front of the vehicle. He fired a short burst and I saw the rounds kick up dust just in front of the target. He made a slight adjustment and then fired again. This time the tracers left a fiery trail straight to the front of the APC. The gunner kept firing, and hitting, but the vehicle kept on coming. The Old One nudged me and said, "the front of that thing is like the edge of a bayonet. The glaxis is only 10 degrees. See the way the rounds are ricocheting off."

"But I thought you said that the role of this weapon was to destroy those things?" I said. "How is it supposed to do it if it won't penetrate?"

"Just watch and you will see," the old man answered. By this time the vehicle had closed to 300 metres. Then strange tracers began appearing from the left flank. The third burst was on target and the vehicle suddenly veered to the right and ground to a halt. The hatches opened and out swarmed five infantrymen, their AKM assault rifles clutched in their right hands. Then the steady crump of the .50 Cal was replaced by the sharp staccato rhythm of the 7.62 as a GPMG closed in for the kill. Two of the troopers dropped in their tracks while the other three crawled to cover behind their disabled carrier; no longer playing an effective role in the battle. "Where did that fire come from?" I asked. "I don't have any machine guns over there."

"No you don't," the old man slowly replied.

"That is the shame of it all. You see - you should have!" (See **Figure 1B**.)

He waited for his last comment to sink in then continued.

"You must realize that you are sitting on a vital piece of ground. If it falls before the rest of your brigade can reach their positions, NATO will suffer a grave defeat. Unfortunately for you, your enemy also realizes this. He knows you are here and he will go to any extreme to defeat you. His preparatory bombardment will consist of up to 200 guns firing a total of between 4000 and 5000 rounds in 30 minutes. His first assault wave will be 10 T-72 tanks followed closely by 31 APCs. They will attack on as wide a front as possible and will come at you along both approaches. Don't think that minefield is going to hold them up for very long. Immediately behind the first wave will be another just like it and behind it a reserve of some sort. But that's just the start of it. The main breakthrough force comes next. It will be tank-heavy and will be headed for objectives well behind you. If things go as they plan, you will be in no shape to interfere with this force and they will just roll right over you. If you can survive long enough to make them delay the launching of the breakthrough force by three hours, you will have achieved your mission."

"Your biggest problem, of course, will be the anti-tank battle. The TOWs and aircraft will get some of the tanks but the Fantasians will use a tremendous amount of smoke and this will limit the effectiveness of your long range weapons. The real anti-tank battle will be fought right here on top of your position. Remember that at extreme close range even the most sophisticated tank is vulnerable to a determined infantryman with a Carl Gustaf or an M-72. That is why the Fantasian infantry will be right behind the tanks; to keep your troops pinned down in their trenches while the tanks crunch them. The secret of your success will be to separate the enemy tanks from their supporting infantry. The best way to do this is by creating a wall of machine gun fire between them. Keep the infantry pinned

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down short of the position while you deal with the tanks.”

A hundred thoughts went through my mind all at once. The ancient warrior had brought up some very valid points. Points which were within my power to take advantage of. Just where do I start, though, I thought. Again the Old One read my mind and interrupted. “First off, you must chart a complete reassessment of your plan. Sort out your killing areas and your mutual support between platoons. Then you must resite your guns in relation to these target areas; always keeping their characteristics and the principles of their deployment in mind. I am sure you will find that you have nowhere near enough guns on the position. You will have to dismount more from your zulu vehicles.”

“Where am I supposed to get crews for these extra guns?” I asked. “I suppose I can get by with only two men per gun but, assuming I dismount ten more guns, that’s 20 riflemen I loose.”

“I can answer that best in the words of the greatest of all machine gunners, Brigadier Brutinel, our Corps Commander during my war,” he replied. “In 1917 the British Army in France was seriously considering reducing the size of the machine gun companies to provide more troops for the infantry battalions. Brutinel was asked to express his views to a meeting of corps and divisional commanders.

He said: ‘of course this proposal is tantamount to loosing firepower of a great many men so as to add men to do the fatigue work. What would you think of a manufacturer who, being short of hands to clean windows decided to stop his great machines so as to relieve men for that purpose? The policy of reducing machine guns would not remedy the shortage of men in infantry brigades, but would undoubtedly lower their firepower. Instead the number of machine guns should be increased proportionately to maintain, if not improve, their firepower.’

“The machine gun companies were not reduced from twelve battalions to nine. The actual number of machine guns was increased. This is

the approach you must take. Two riflemen in a trench can do little to influence your battle until the final stages and they certainly can’t knock out APCs or pin down their crews. If these same two soldiers happen to have a machine gun, now, that’s a horse of a completely different colour.”

“That’s all very well,” I countered, “but how am I to train all of these extra machine gunners in the limited time I have left.”

“Not an overwhelming problem,” he replied. “In 1919, during the big German breakthrough, our casualties were so high that we had to accept Horse Guards, fresh from in front of Buckingham Palace, as replacements. We had no trouble in bringing them up to speed quickly and our gun was much more complicated than yours are. Besides, all of your troops have had some machine gun training.”

“You shouldn’t have any trouble finding suitable gunners. Command and control of them, however, will be a problem. You certainly can’t have every gunner popping off rounds at everything he sees whenever he feels like it. Just doing the initial coordination of that number of guns is a monumental task. Fortunately there is one who arrived with you last night who can be of tremendous assistance to you. He is a recently trained advanced machine gunner and has already tried once to see you and express his concern over the machine gun situation. Your Sergeant-Major sent him away, however.”

Suddenly, the old soldier began to fade away. His image became blurred and his voice began to sound like he was miles away up a valley. “I am being drawn back to my time and can be of no further help to you,” he concluded. “Remember, you can still win this fight but to do so you must become, in fact a machine gun company. You have the tools. How you use them is up to you.” Then he was gone.

### **Sergeant West**

The next thing I remember is the Sergeant-Major nudging me awake and handing me a steaming cup of coffee. The bright sunlight breaking

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through the trees outside the hootchie indicated that it was well past first light. "We let you sleep through stand-to, sir" he said. "You were awfully bushed last night so I thought it best you get the extra sleep. We're fixing your breakfast now and the platoon commanders will be here in an hour for your O group."

I thanked him and he left. I took a sip of coffee, then put the cup down and layed back to think. Either I'd had a visit from some spiritual being or I'd had a very interesting dream. I suppose I'll never know for sure, I thought. My recall of the incident was complete, however, and I was convinced that my first priority had to be to get the machine guns sorted out. But where should I start? I decided that the first thing I had to do was to identify and establish contact with the advanced machine gunner the Old One spoke of. My watch said ten after seven and the O group was scheduled for eight so I had to get a move on.

I squirmed out of my sleeping bag, quickly dressed and made my way to the CP. "Good morning, sir," the duty signaller said. "Your breakfast is almost ready and there is hot water for shaving over there on the stove."

"Thank you," I replied. "I'll listen to the set for a few minutes. Would you get the CSM for me, please."

Somehow, I had to find out who that machine gunner was without mentioning the Old One to anyone. I could imagine the impression the troops would have of their new company commander if they found out he had visions. I was half shaved when the CSM walked in and I took a long shot. "There are still a number of things that I want to get straight in my mind Sergeant-Major," I said, "so I think we had best delay the O group until 1000. I'm more than a little concerned about our machine gun deployment. I've got some ideas of my own but I need some technical advice. Do we have any recently trained advanced machine gunners in the company?"

"Funny you should mention that," he replied. "There's a sergeant by the name of West who came up with the reinforcements last night. He claims to be an advanced machine gunner. I assigned him to three platoon. I can get him here in about 20 minutes if you'd like."

"Yes, please do that," I answered, feeling rather smug. "That will give me a chance to finish cleaning up and eat breakfast before getting down to business. One more thing before you go. I'd appreciate it if you'd have someone with an artistic flair draw me up a reasonably accurate sketch of the positions."

I was just finishing my second cup of coffee when the sergeant arrived. He was younger than I'd expected but had an alert, efficient look about him. He saluted and introduced himself. I returned his salutation, offered a cup of coffee and told him to find a seat under a large tree in front of the CP. Moments later I joined him.

"I'll be completely honest with you sergeant," I began. "I know just enough about machine guns to realize that we aren't using ours correctly. I'm not sure where to start sorting the mess out and I need a right hand man; one who can give me some solid technical advice. I'm hoping you are that man."

"Well sir, I'll certainly do what I can," he replied. "I just finished my advanced machine gun course two months ago so it's still pretty fresh in my mind. I've already given our situation here some thought and I do have some recommendations I'd like to make."

"That's great," I answered, "but before we get launched I'd like to clear my head a bit on some of the basics. I'm up to speed on roles, characteristics and the like but I'm a little shaky on the principles of machine gun deployment. (The Old One had mentioned them several times but had neglected to tell me what they were.) Off hand, do you remember them all?"

"How could I ever forget," he laughed. "The captain who ran my advanced course was a fanatic about them. He grilled us on them until

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we could recite them in our sleep. His favourite saying was that if Moses had been a machine gunner there would have been eight commandments instead of ten. Why don't I go over them one at a time and we can discuss them as they relate to our situation here?"

"Great idea," I replied. "What's the first one?"

### **The Principles of Deployment**

"Probably the most basic of all and one that we don't have to spend much time discussing - MUTUAL SUPPORT. We just have to make sure that no gun is sitting out there in isolation. If possible, each gun should be sited where another gun can fire directly at it if it is overrun. This, of course, is seldom possible to achieve with every gun on the position. Some times you may have to fill in with a C2 or a couple of riflemen."

"The second one is probably the most important - CO-ORDINATION OF FIRE. This starts with the proper preparation of range cards and the registration targets. The range card in a machine gun trench is much more important than the one used by a rifleman. There will be many occasions when the gunner won't be able to observe the target area, but his fire will be essential. Each gun must have an FPF and four or five targets. As soon as the tripod is well bedded in, the T & E data for each of these targets must be recorded. That way the crew can engage any of their targets whether they can see them or not."

"The first actual co-ordination takes place at platoon level. A machine gun fire plan evolves sort of the same way a mortar or artillery one does. The aim is to get everyone talking the same language. Common targets must be given common numbers and there must be no repetition of numbers that might lead to confusion. Guns then register each other's targets as well as their own; the ones that they can see, that is. This co-ordination can be done by the platoon weapons master corporal, the platoon 2IC or, if he has the time, the platoon commander."

"Once the platoons are sorted out, we have to get the whole company on net. This is very time consuming job if it is done correctly and I doubt very much that you will have time for it. If you want, I will do it for you. I will produce a common target list for the entire company and a large diagram, sort of a company range card, for you to fight the battle from."

"This co-ordination thing goes on and on and there are a number of things that I will wait until later to discuss with you. What you have to keep in mind from the beginning, though, is the co-ordination of the machine gun plan with the arty fire plan, the TOWs and other support weapons. I'm afraid I can't help you much with that because only you are fully aware of the big picture."

"I can certainly see this co-ordination thing taking up a good deal of both our time," I interrupted. "Let's get onto the other six right now, though."

"Well, the third one is pretty basic - INTERLOCKING FIRE. This helps with your all round defense plus provides a high concentration of fire into your killing areas. It ties in closely with the next principle - SITED IN PAIRS. There will be times during the battle when you will want almost continuous fire on a target. Our guns are not capable of providing this; therefore, you have to use two guns firing alternate bursts. You must also always keep in mind that mother nature is a bitch and she always sides with the hidden flaw. A separated casing can occur at any time and having a stand-by gun might make the difference between a group of BMPs being destroyed or passing through a killing area unscathed. While we are talking about APCs, it's a good idea to pair an HMG with a GPMG. A GPMG won't hurt an APC and it's a terrible waste to use C44 AP/T ammo against personnel, so neither gun can do the complete job by itself. Ideally, paired guns should be about 25 metres apart and work under one fire controller. Ground and distribution of guns within the company does not always allow this, however. If need be, two guns from different platoons can work together. The co-ordination problem becomes a bit of a monster, though."

“The next two principles go hand in hand. They are - SITED IN DEFILADE and SITED TO PRODUCE ENFILADE FIRE. Defilade simply means that you have something solid between you and the bulk of the enemy’s direct fire weapons and enfilade means that you hit the enemy from a flank. As glamorous as it might sound, the last thing we want is to have the enemy staring down the muzzles of our machine guns. I can best illustrate this with a diagram.”

I handed him my field message pad and a pencil. He sketched away for 20 seconds then continued. “Let’s say we have two hills with a platoon on each. (See Figure 2.) Each platoon has one machine gun. The tendency is to put the guns on

top of the hills pointing directly at the enemy. Now as you well know, a machine gun is only really effective as such when it is locked to the traversing bar with the T & E mechanism. If it’s not locked down, it becomes nothing more than a belt fed rifle. The limitation is that the traversing bar only allows for slightly over 800 mils. As you can see from the sketch, here, this leaves a substantial area between the platoons that the enemy can just walk right through. And as he gets closer, your ability to engage him decreases. Siting the guns on top of the hills also exposes them to the enemy’s direct fire weapons and, with modern tank gunnery being what it is, they certainly won’t last for long.

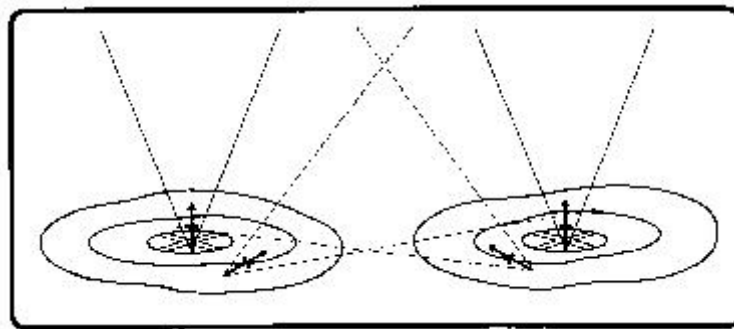


Figure 2. Sergeant West’s Sketch.

“Now let’s look at the situation from a different point of view.” He X-ed out the two gun symbols and drew in two new ones. “You see, if we site the guns behind the hills and lay each one across the front of the adjacent platoon, we are covering the entire front as well as protecting both guns from the enemy’s direct fire. What we have here is a classic machine gun deployment with both guns sited in defilade and producing enfilade fire. Now, it’s unlikely that we will find two hills, just like these, here on our position. There will probably be several areas, however, where we can utilize these principles.”

“I mentioned the effectiveness of modern tank gunnery already and the enemy can also bring down a considerable weight of artillery, not to mention his close air support. PROTECTION AND CONCEALMENT is our seventh principle. Our guns must be well dug in, in proper machine gun trenches.”

“Yes,” I interrupted. “I’m familiar with machine gun trenches. Let’s get to the last principle.”

“ECONOMY,” he stated. “The standing joke on my course was that there were originally only seven principles and that economy was added as part of the Government’s latest austerity programme. When you look at it seriously, though, its as important as the other seven. Economy of ammunition is the important thing but we mustn’t disregard wear and tear on the guns. The HMG has a cyclic rate of close to 500 rounds per minute (RPM) and the GPMG can reach over 600. Both guns will fire at this rate of limited periods and can be used that way in an emergency. It doesn’t take long, however, before barrels burn out, oil burns off, metal parts expand and tolerances become just a little bit too tight. Then the gun will let you down, probably when you need it the most. The proper rates of fire for the HMG are 40 RPM normal and 100 RPM

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rapid. The GPMG is 60 and 90. We found on my advanced course, with the GPMG firing four to six round bursts, that a slow count of five between bursts would give normal rate while a three second pause would give rapid.”

“Ammunition expenditure is probably the biggest thing we will have to watch. I had a look through the carriers last night and we are well bombed up. I would say substantially higher than our official first line. That ammo is not doing us much good back in the zulu harbour, though. Firing rapid rate, an HMG goes through 35 pounds of ammo each minute and a GPMG uses about seven. That could add up to a tremendous resupply problem. One that might be impossible to cope with in the heat of battle. The solution is to dump as much ammo as we dare on the position itself. Then we must exercise extremely tight fire discipline. We can’t afford to have three guns firing at the same target if one will do the job. We shouldn’t waste HMG ammo on soft targets if there is a GPMG in range and available for the task. We have to be particularly stingy with our C44 AP/T.”

“Well there you have them,” he concluded. “Ideally, each gun we site should comply with all eight principles. We must be realistic about it, though. I think five out of eight wouldn’t be a bad score to aim for.”

### **The Plan**

At this point the CSM arrived and handed me a large sheet of paper. “Here is the sketch you asked for, sir,” he said.

“Ah, good,” I replied. “Sit down, Sergeant-Major. I’m going to need to pick your brains on a few things. If possible, I want to use all of our machine guns, in one capacity or another, during this battle. There is just too much firepower there to waste. Exactly how many guns do we have?”

The CSM thought for a moment then said, “each carrier has an HMG and we’ve got 15 carriers. 2 platoon has one gun that’s US, however, so that leaves us with 14. Each platoon also had a GPMG and I’ve got another one here for the defence of company headquarters.”

“That gives us 18 guns to play with,” I deduced. “We’ve got six deployed now so, assuming we deploy them all, we need 12 new crews, or 24 men.”

“That’s quite a bill, sir,” the CSM said, “and I know the platoon commanders aren’t going to like it. Possibly, we can cut down by leaving some guns mounted on their APCs. That way we only need one man on each gun.”

“There may be some merit in that. What do you thing Sergeant West?”

“APC mounted guns are certainly more mobile and flexible and they do have a better anti-aircraft capability than ground mounted guns,” he replied. “There are some distinct disadvantages, though. The silhouette is high and the gunner is very exposed. He also can’t reload or service the gun without getting out of his hatch. That means you’ve only got 105 rounds to use in any one engagement then the vehicle must break contact and seek cover to reload. At rapid rate that’s only one minute fire. There is also no way to register targets and the accuracy of the vehicle mount leaves a lot to be desired. You end up with a much shorter effective range and a much larger beaten zone. I suggest that we concentrate on siting ground mounted guns first, then, if we have any left over, we can look at ways to utilize some sort of an APC mounted quick reaction force.”

“I never quite looked at it that way before,” the CSM replied. “You make a lot of sense so I withdraw my suggestion.”

“So much for that idea,” I added. “Let’s worry about personnel later and get on with the initial planning. Normally, I would have sited all machine guns and anti-tank weapons before putting the platoons on the ground. Unfortunately, we will have to do it in reverse this time. The troops’ morale appears very good right now and I don’t want to dampen it, just before the battle, by making them dig in a new position. We will have to dig in some proper machine gun positions but we must keep them within the existing perimeter. Hopefully, that

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won't present much of a problem. Let's consider the anti APC plan first."

"As I see it, there are only two vehicle approaches: through the minefield and through the gap. I expect they will neutralize us while they breach the minefield then come at us on both approaches at once."

"That makes our killing zones obvious, doesn't it," Sergeant West interrupted. "The near edge of both areas are within HMG range of our forward platoons."

"Right," I replied. "Let's call them A and B respectively. We'll start off with two guns covering each of them. I think we should also designate the forward edge of the two forward platoons as killing zones as well. We'll call them C and D. Let's say two guns apiece, again."

"That uses up eight guns," the CSM stated. "We only have six left."

"I think we can exercise a bit of economy here" Sergeant West interjected. He pulled a piece of talc from his pocket and laid it on the sketch. "I assume this sketch is reasonably accurate. The two lines on my template, here, are 800 mils apart. That's just under the arc a machine gun can cover. See, it's like I thought. Guns with 1 Platoon can cover both zones A and C. Zones B and D can be covered from 2 Platoon. I suggest that we put three guns with each platoon. That way, we can dedicate an FPF in each zone and have two guns as switch hitters." (See Figure 3.)

"Sounds great to me," I answered. "What do you think Sergeant-Major?"

"Fine by me, but what about the GPMGs?"

"The primary role of the MMG - that's what our so-called GPMG really is, by the way - is direct area neutralizing fire," Sergeant West continued: "One of the best applications of this is tasking a gun to pin down crews dismounting from disabled APCs. We've got four GPMGs so we could put one onto each killing area."

"That will mean moving the gun from 3 Platoon and the one from here forward and I don't think I like that idea," I answered. "I want to keep this redeployment as painless as possible and I will interfere with the integrity of the platoons only as a last resort. "The two forward platoons still each have one HMG uncommitted. Can't we use these?"

"Sure," the sergeant replied. "It's one of the HMGs secondary roles, We'll just load these guns with ball ammo instead of AP and use them on the farther out targets. These guns could well use up a tremendous amount of ammo, though. We will have to keep that in mind when we are doling it out."

"Don't forget that 2 Platoon is down a gun," the CSM interrupted.

"A good point," I replied. "We'll give them the gun off of the CP. It will protect us better from up there than it will from back here anyway. I suppose we should be giving some thought to our own protection, though. I think we've got the forward killing zones as well covered as possible. If we put any more guns up there, they will be tripping over each other."

"I think we have to accept the fact that during the battle one, or maybe even both, forward platoons might be overrun. There is also a chance that some BMPs might outflank them and come at us from the side. Let's create two more killing zones; one by the farm, here, which we'll call E and another behind 1 Platoon which we'll call F. We should be able to cover both of them from 3 Platoon's area. Let's put two guns on each. What do we have left, CSM?"

"That brings us up to 14 leaving two HMGs and two GPMGs in reserve," he replied. "If you ask me, that's a good place to leave them for now."

"Agreed," I answered. "We will organize crews for them but we won't put them on the ground, just yet. Once we finish our final co-ordination, we may well find that we have some holes that need filling."

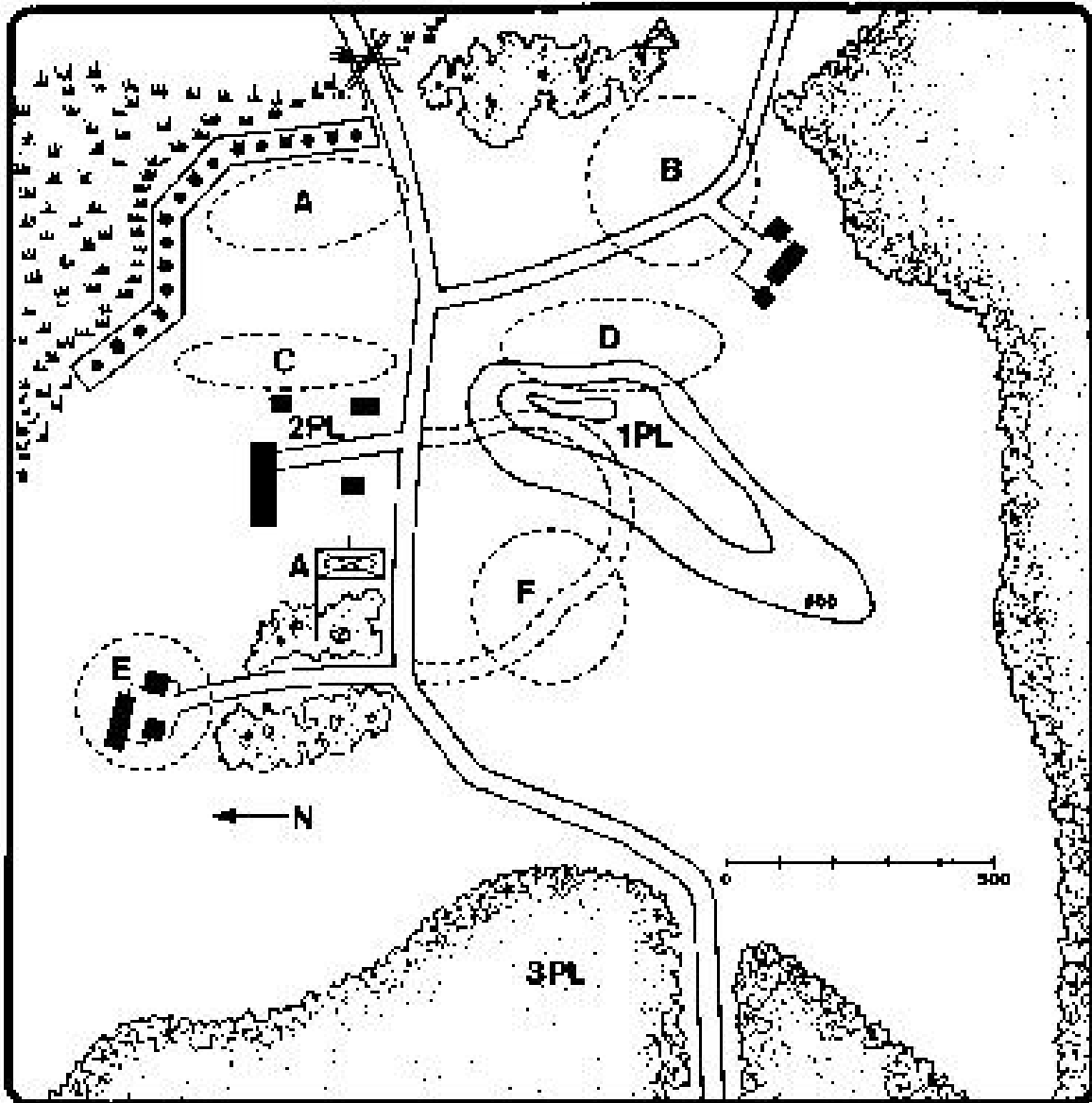


Figure 3. Machine Gun Killing Zones.

I glanced at my watch and noted that it was already past nine o'clock. "We're starting to run out of time," I commented. "I don't want to delay the O group again so we'd best get a move on. Sergeant West, I want you to become part of company HQ. Move your kit up here later on today. Your first job is to find detailed sites for all of the guns we have just been talking about. Sergeant-Major, have the signaller call each platoon and advise them that he's coming. Tell them, from me, that they are to co-operate with him fully and I will explain it all later. You'd

better do that right away, then come back and we can discuss personnel."

Returning my attention to the sergeant, I continued. "Once you've found sites for all the guns, come and get me. I don't want any digging to start until I have given the OK. Then, while the platoons are digging, we can discuss this co-ordination thing in more detail. Any questions?"



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“No, I’m clear on what you want. It will probably take me two or three hours but I should be back by noon.”

“Good,” I replied. “Get on with it then and I’ll see you later.”

The CSM returned and sat down beside me. “Message passed, sir,” he said.

“Sergeant West seems to be a good man,” I casually commented.

“He knows his machine guns,” the CSM replied. “Beyond that, we’ll just have to wait and see. You wanted to talk about personnel?”

“I will brief the platoon commanders on most of what we have discussed so far and it will be up to them who they use to crew their guns. I expect that they will want to do some refresher training on gun drills but that will be up to them to organize. We will be live registering targets this afternoon and it’s important that we get off on the right foot. I expect that most of our troops don’t really understand the workings of the T & E mechanism and have never made out a proper machine gun range card. To keep us all on net, we will have to address this at company level. Would you organize it, please.”

“Will do, sir,” he replied. “We’ve got a set of machine gun pams in the battle box and I’ll get the transport sergeant and one of the platoon 2ICs to give me a hand. If you’d like, we’ll include something on the construction of machine gun trenches as well.”

“Excellent idea. I’d forgotten about that. You’d better take a quick inventory of our defence stores, as well. If you think we will need more, get an emergency ADREP off right away. Before you do that, though, let’s sort out who will man the guns that don’t belong to a platoon.”

“With the CP’s gun going to 2 Platoon that just leaves the ones from the APC dozer and the 2IC’s carrier,” he replied. “There’s also our GPMG.”

“That leaves three guns up for grabs plus the GPMG from 3 Platoon that I haven’t tasked yet,” I responded. “Put together one crew from company HQ and I’ll have each platoon prepare a stand-by crew. That way, once I decide what to do with them, there will be somebody in each position to man them.”

“Now I’ve given you enough to keep you busy for a while so you’d better get at it. Any last minute points?”

“Well,” he hesitated, “I agree with everything you are doing but if you don’t mind me saying so, sir, don’t you think you are going at it a little bit too fast? Unless you know something that you are not telling the rest of us, we’ve still probably got a few days left before the war starts again so there is no need to rush. It’s going to take time to do the refresher training you want, move up the guns and ammo from the zulu harbour and get the position dug in. I’m almost certain that we will need more pickets and sandbags and the soonest we can get them is tonight. Yet, you are talking about registering targets this afternoon. May I suggest that we concentrate on training and siting this afternoon, then give the troops a rest. We can move the guns up and dig the positions in under cover of darkness, tonight, then register targets right after first light stand to, tomorrow.”

I thought for a moment and then agreed with him. “I guess I was getting a little carried away,” I said. “It’s important that we get this thing right and, as you say, we do have the time. We’ll go with your plan. Now if you’ll leave me alone to make a few notes, I’ll see you at the O group.”

During the O group, I brought everyone up to speed on the latest Int picture and expounded, in great detail, on how I intended to fight the coming battle. The platoon commanders were obviously not pleased with having to dismount the rest of their machine guns and reorganize their positions. I did a good selling job, however, and no one gave me any static. I outlined the timetable for the next 24 hours, scheduling a final coord conference for 1000 the next day.

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Following the O group, I had a long chat with the two TOW section commanders. One section was in the woods with 3 platoons covering the minefield, while the other was in the woodline southwest of 1 platoon, covering the gap. We agreed to meet on the forward platoon positions at 1400 to tie them in with the Carl Gustafs and HMGs. They were just leaving when I remembered the liaison visit from the FAC that evening. We discussed the airborne anti-tank situation, momentarily, then decided that they should both attend the meeting.

I was contemplating some lunch when Sergeant West returned. "Found a spot for all of them, sir," he said. "It worked out pretty much like we planned it on the sketch. If you are free, we can have a look at them right now. Then the platoons can start digging and we can get the guns registered."

I briefed him on the new timetable and we agreed to take a break for lunch before walking around the position. He went off to get his kit and I began poking around my box of IRPs. I was just finishing a can of peaches when the CSM walked up and said: "do you know anything about a bar minelayer that's supposed to be coming to us, sir? There's an Engineer sergeant here who says you should be expecting him."

"Oh my gosh" I exclaimed. "I've forgotten all about that. Send him over."

The sergeant advised me that he was just on a recce and his section wouldn't be free to do the job until the next day. He had only 300 mines allocated to the task but I could put them wherever I wanted. I thought about it for a minute then decided to put them west of 1 Platoon running out to the treeline. That would block any enemy trying to force their way past us to the south and would just be in range of 3 Platoon's MAWS. The engineer did some quick calculations then said: "I can give you a field 500 metres long with five rows of mines. That will give you 60% stopping power against APCs and almost 80% against tanks. It will take us about four hours to do the job; of course, that doesn't

include fencing or any antipersonnel mining. We'll want some help from you on that."

We discussed the nitty-gritty details for about 10 minutes, then Sergeant West arrived on the scene.

"I've got a job for a couple more of our guns," I said. "Where's the sketch?" The sergeant pulled it from his pocket and unfolded it. "The sappers are going to give us another minefield, right here. Did you site any guns that can cover that area?"

He pulled out his 800 mil template and laid it on the sketch. "I've got two HMGs, here, covering killing zone F. They can get anything trying to slip around the north edge of the field but can only cover about 100 metres of the field itself. We could swing one gun to face further south but it wouldn't be able to cover FOXTROT then. I suggest, instead, that we deploy another HMG here." He pointed to the road junction south of company HQ. "A gun there could lay a belt of fire along the length of the field. The range, at the extreme edge, is a little long but we will be getting close to 90 degree hits so we just might be all right."

"Sounds good to me," I responded. "What about mopping up after it?"

"Well, you'll remember that we haven't committed 3 Platoon's GPMG yet. I suggest we put it here." Again he pointed to the sketch. "If we put it well back in the trees, it can cover both killing zone F and the minefield. We may have to cut some trees down but I'm sure I can find a suitable spot. In addition, I think we should decide, now, exactly where the minefield boundaries will be and mark them. That way, we can register the guns on it before the mines are laid. Once they are in, we won't be able to fire into the field without risking detonating them."

The three of us walked out to the general area of the minefield and marked the two near corners with pickets. Then the Engineer sergeant left and Sergeant West and I made our way to 1 Platoon's position. He had done an excellent job of siting their guns. They were a little close together but were all in defilade behind the hill so I agreed to

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the sitings. He briefed me and the platoon commander on targets then we made our way to 2 Platoon. Again, he had done an excellent job. This position was more challenging because there was no convenient hill to stick the guns behind. By using buildings, manure piles and the like, he was able to get each gun behind something.

“We’ll need a lot of sandbags to reinforce these positions,” he said, “but they are the best I could do.” Again we discussed the targets and FPFs with the platoon commander. Time was flying so I decided to stay up front and wait for the TOW section commanders. Sergeant West went back to site the 3 Platoon GPMG and we agreed to meet there later.

I found him there, two hours later, deeply engrossed in conversation with the platoon commander. They stood up as I joined them and the sergeant said: “we found a good spot for that GPMG. Like I thought, we will have to take down a few trees but other than that, it’s a good position. It’s about 1200 metres from the far edge of the minefield so, as the gun is good to 1550, we are all right for range. Before we go and look at it though, the lieutenant, here, has an idea that I think you should listen to.”

I glanced at the platoon commander, who stated: “I don’t really have a position as such here. With the machine guns spread out the way they are, I’ve got over 1000 metres of front. If a mechanized force gets past the two front platoons, there is little that I will be able to do to stop it. Other than manning the machine guns and guarding the zulu vehicles, we don’t really contribute much. Sergeant West mentioned that you still have two HMGs that aren’t committed. Why don’t you let me put them on two of my APCs and form a sort of QRF? I’m up to strength in personnel so I could put six or seven men in each vehicle. We’ll strip the carriers of all personal kit and fill them to the brim with machine gun ammo and M-72s. We’ll make a great immediate reinforcement or counter penetration force and could also be used for emergency ammo resupply and casualty evacuation.”

I thought for a minute and a whole thing seemed to make sense. 3 Platoon’s mission was to provide depth to my defence. Nothing, however, said that they had to do it from a static position - “Where do you see this force located?” I enquired.

“Well,” he answered, “I could stay back here but if and when you need us it will probably be on short notice and speed will be crucial. We won’t be able to guarantee radio communication so the closer we are to you the better. I suggest the woods across the road from your HQ.”

“OK,” I agreed, “but don’t get carried away with this thing. Be sure you leave sufficient men behind to man the machine guns adequately. You’d better leave your 2IC and your weapons Master Corporal behind as fire controllers and your MAW is needed to cover the minefield. Check with the CSM, though, because I think we have a MAW at company HQ which isn’t doing anything. If so, you can use it for your QRF. Actually, you’ve bitten off a big chunk of responsibility. By tomorrow noon I expect you, your NCOs and your two drivers to know every inch of the forward positions and every possible route to get to them. Any other ideas?”

“There is one, sir,” Sergeant West added. “We’ll have to look at the ground but it might be possible to site the QRF so that the guns can be fired from the carriers in an anti-aircraft role. It won’t be much but it’s all we’ve got. We’ve also got the Lynx that belongs to the recce detachment. It’s not doing anything right now and one of the Lieutenant’s men could man the gun.”

“Another good idea,” I replied. “Funny thing we didn’t think of that Lynx earlier. I’ll let you two sort out the detailed sitings but right now I want to look at the guns you have on the ground here.”

I concurred with the locations and targets allocated to 3 Platoon’s guns then went back to company HQ. It was time that I paid some attention to the Artillery fire plan.

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## Registration

I had just finished sending some amendments to the fire plan over the secure voice net when Sergeant West and the Lieutenant arrived. "We found a good spot for the Lynx," the Lieutenant said, "but could only use one of the M113s."

"That's all right," I replied. "At least it's something. You'd better get on with your recces and its time Sergeant West and I had another chat. Let's find ourselves a tree, Sarge, and sit in the shade for a while."

"Now," I began, "exactly where do we stand?"

"The guns are all sited," he replied, "and the platoons know exactly how to place their tripods. On my way up here, I noticed the 2 Platoon 2IC giving a period on the T & E mechanism to all of the number one gunners in the company and the transport sergeant was briefing the section 2ICs on the proper construction of a machine gun trench. Provided the additional defence stores arrive tonight, we will be completely dug in by morning. If we aren't, it won't really matter. Provided the tripod platforms are finished, we can still start registration."

"How exactly will the registration take place?" I enquired.

"Well I thought for a while that I would make out a master plan tonight and get it over with in one session," he replied. "I decided, though, that in the long run, we will be better off sticking to the normal procedures. The guns are now grouped in twos and threes as machine gun sections. This organization is superimposed over the normal platoon structure. Each-section has a commander who is responsible to the platoon commander for controlling the fire of his guns. Who this individual is, varies depending on how the platoon is layed out on the ground. Most are commanded by the local rifle section commander. 3 Platoon is unique because of it's QRF tasking. The two guns on the left are commanded by the weapons master corporal while those on the right work under the platoon 2IC. The GPMG is on its own but the platoon

commander vouches for the competence of the corporal manning it. Theoretically, the platoon 2IC is in overall command, but because of the distance involved, I think we should consider giving the Master Corporal a radio and treating his section as a separate sub-unit. We can discuss that later, though."

"The initial registration is supervised by the section commanders. Each gun fires enough rounds to thoroughly bed in the tripod, then, starting with the FPF, engages each target. Once the rounds are firing exactly where the controller wants them, the T & E data is recorded on the range card. The section commander gives each target a temporary number and that completes stage one, Stage-two is when the section commanders compare notes, so to speak, under the platoon commander or his 2IC. Platoon target numbers are assigned and all guns register on all targets within their range and view. Except, of course, for those that were theirs initially."

"The third stage is when I get into the act and do basically the same thing that the platoon commanders did only a company level. The end result is one company target list. For ease of control, I'll also give each gun a number."

"Wow, you are building me a monster to control in the heat of battle," I exclaimed, "but I like it."

"You bet," he answered. "There are ways to simplify the control problem but we can discuss them later. Right now, I need your decision on a couple of things. Almost all of our guns are employing flanking fire at one time or another. The tactics part of the machine gun part states that how close we bring fire to friendly troops is a command decision. The technical part, however, states that 'barrels must not point, nor bullets fall, within the safety angle of 267 mils measured from our own troops.' Frankly, I think that's a lot of bull. What I suggest is that we register targets 50 mils out but leave enough room on the bar to enable the gun to fire onto the position itself. We can stake the barrels at the 50 mil point to prevent accidents but these stakes could quickly be removed in an emergency."

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*[The Infantry School thinks so too. A submission has been submitted to FMCHQ to change this to 50 mils.]*

“As usual, you make a lot of sense,” I replied. “Go ahead and do it that way.”

“Good, I was hoping you would say that,” he responded. “There are some targets in killing zone F, however, that are directly in line with 1 Platoon’s position. If there are 450 metres between them and the target, we are all right. There are a couple of targets that are closer than that, though, and I suggest that we be satisfied with dry registration on these.”

“Agreed,” I replied. “We will only be firing those targets if we are overrun anyway.”

“Well that’s pretty well it,” he concluded. “I’ll get a message passed to that recce det so they don’t think we are declaring war on them and it will probably be wise for you to advise BHQ. I’ve got some definite views on how you should go about controlling all these guns but I really think we should put off discussing it until tomorrow.”

“There’s really no rush, I suppose,” I answered, “and I think you’ve given me about all my brain is capable of absorbing for a while. Besides, I’ve got to start thinking anti-tank again. I’ve got an airborne FAC coming to see me in about an hour. Keep up the good work and I’ll see you again later on tonight.”

### **Co-ordination**

That night the company worked like a bunch of beavers. The additional defensive stores arrived, along with several rolls of sigs wire that had been ordered at Sergeant West’s request. At the time, I wondered what he had up his sleeve. First light found most of the machine gun crews putting the final touches on their camouflage. I did a quick tour of the forward platoons during stand-to and was impressed with what I saw. I decided to stay with 1 Platoon and watch the registration. The Old One would be proud of me, I thought. The registration went smoothly and didn’t take nearly as long as I thought it would. Most of the crews had dry registered their targets during

stand-to and that helped speed things up. It was almost like a range practice, I thought as I watched the beaten zones forming out in the killing areas. Periodically, two guns would engage the same target from a different angle. I was amazed at the differences in the effect of the beaten zones. Some were long and narrow and others were short and fat, depending on the type of gun, range and the slope of the ground. I noticed the platoon 2ICs moving from gun to gun, talking to the commanders and making notes. They were very much involved in what was going on.

I was contemplating returning to the CP for some breakfast, when I noticed Sergeant West striding up the road with his map case under his arm. I tracked him with my binoculars until he disappeared behind one of the 2 Platoon buildings. Moments later he reappeared, this time in company with the platoon commander and his 2IC. They proceeded from gun to gun, making notes and periodically pointing towards 1 Platoon. Each gun fired at least one target under Sergeant West’s critical eye. Once they’d made their rounds, so to speak, the three of them sat down and had a long confab; again with much pointing and nodding of heads. After about five minutes, the 2IC got up and walked back to one of the gun pits while the other two moved off toward where I was standing.

“Everything’s going smoothly, sir,” Sergeant West greeted me as he walked up. “As soon as I finish here, I’ll be able to make up the master target list. Then I’ll reverse my route around the platoons, passing on additional targets and new numbers. I should have a briefing package ready for you in about an hour and a half. We can discuss fire control then.”

“Well done,” I replied. “I have a number of questions to ask you, but they can wait until then.” The 1 Platoon Commander joined the group and, from a short distance away, I listened as the three of them discussed targets and control measures. The two lieutenants came to a number of agreements based on the senior NCO’s suggestions. “He’s got them eating out of his hand,” I chuckled to myself. The threesome

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made their way over to the right hand HMG and, with a distinct air of authority, the sergeant began grilling the crew.

“Where is your FPF?” he began.

“Target number 1,” the man replied. “Right by the building over there by 2 Platoon.”

“What do you have the range recorded as?”

“800, sergeant.” The sergeant scanned the target area with his binoculars then turned to the number 2 Platoon Commander. “All of your men are under cover, sir. Do you mind if we fire a burst?”

“No, go ahead,” the lieutenant replied. “I’m as concerned as you are that the registration is accurate.”

The sergeant swung his binoculars back on his target and ordered “Fire.” The gunner squeezed off a five round burst and through my binoculars I could see the dust rise up. “Right on target,” I said under my breath. The gunner looked up at the sergeant, obviously proud of himself. “What do you expect to shoot at out there, soldier?” the sergeant asked.

“APCs sergeant.”

“And where do you want to hit them?”

“In the side, sergeant.”

“Right,” West replied. “But, the way you have that gun registered, you will be hitting tracks and road wheels. You must always keep the height of your target in mind when you register your targets.”

“Gee, I never thought about it that way before,” the soldier answered. “I guess I really want my beaten zone forming a couple hundred metres past the target area, don’t I?”

“Right again, but keep in mind that that’s only against APCs. Against personnel, you want to

chew the ground up a bit so they can’t crawl under your cone of fire. Actually, in this particular case, your cone of fire is more important than your beaten zone. Except for that bit of dead ground in front of you, you can lay a belt of grazing fire right across 2 Platoon’s front. That target becomes just an aiming point rather than a killing area. The killing area starts at the muzzle and goes out 1000 metres. I’d suggest you add five metres and try again. Don’t forget to change your range card. Don’t worry about being neat as you’ll just have to make out a new one in a few minutes, after I issue out the company target numbers. Let’s see now, you’ll be gun number 10. Be sure and put that somewhere on your card so you don’t forget. Now, what other targets do you have?”

About this point I started to really feel the need for a cup of billy can coffee. Besides, Sergeant West was doing a much more thorough job than I could have done so I was best off staying out of it for a while.

Two hours later, Sergeant West joined me under my favourite tree. “Sorry to keep you waiting, sir,” he opened. “It took me a little longer than I’d anticipated.”

“That’s all right,” I answered. “We’ve still got over an hour before the co-ord conference. What have you got for me?”

“Here’s your diagram showing gun and target locations,” he said, handing me a large sheet of paper, (**See Figure 4.**), and here’s your target list (**See Figure 5.**) You’ll notice that we have a total of 20 targets. We didn’t live register the ones close in to the original minefield because I was afraid we’d blow some of the mines. We do have recorded data on them, however, based on sight settings. I’ve listed which GPMG, anti-APC HMG and anti-personnel HMG can engage each target. All HMGs can go both ways in an emergency as they all have some of both kinds of ammo in their position. If I have time, I’ll make up copies of this list for everyone at the conference.”

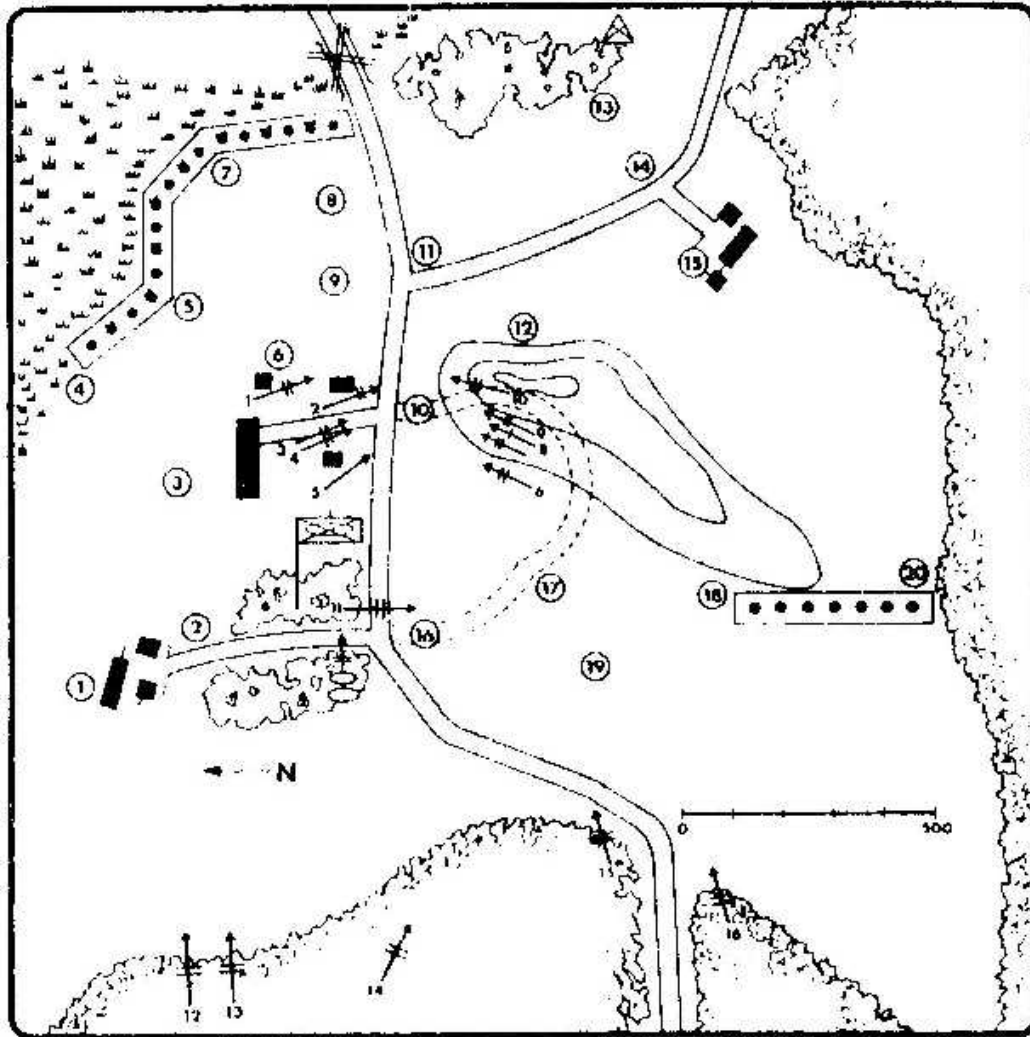


Figure 4. Machine Gun And Target Locations.

### Fire Control

“Wouldn’t it be nice if I could just sit back with these two pieces of paper and press buttons to fire the guns as the contact reports came in,” I said jokingly.

“It sure would be,” he laughed.

“Unfortunately, it’s a little bit more complicated than that. Probably the simplest way to approach it is to think of every possible situation, then decide, in advance, on how we will deal with it.”

“OK,” I replied, “but if we are going to brain storm this thing, let’s get the CSM in on it. I saw him shaving behind his hootchie a few minutes ago. Why don’t you go and get him while I study your diagram for a while.”

Five minutes later, the two of them joined me. “I assume Sergeant West has briefed you on what we are doing?” I inquired and the Sergeant-Major nodded as he sat down beside me. “I think we should consider a straight forward attack, without any complications, first. If they get here in time, the A-10s and TOW Cobras will draw first blood.”

MACHINE GUN TARGET LIST						
TGT NO	LOCATION	GPMG (GUN #)	GUNS HMG AP (GUN #)	HMG BALL (GUN #)	FPF (GUN #)	REMARKS
1	23051488		12	13	13	
2	23151455		12	13	12	
3	23461462		12	13	NIL	
4	23761470		10, 12	13	NIL	GUNS 12 & 13 NOT LIVE REGISTERED.
5	23901460	8	6, 9, 10, 12	7, 13	6	NO LIVE REGISTRATION.
6	23701445	8	9, 10		8, 10	GRAZING FIRE FROM #8.
7	24121448	8	6, 9, 10	7	7	8 & 9 WORK TOGETHER ON KZ A.
8	24041435	8	6, 9, 10	7	9	6 & 7 WORK TOGETHER ON KZ A. NO LIVE REGISTRATION.
9	23861434	8	6, 9, 10, 16	7	NIL	
10	23651418		3, 4, 6, 16	5, 7, 15	15	ONLY GUN #15 LIVE REGISTERED.
11	23901417	2, 8	1, 3, 4, 9, 16	5, 7, 15	5	1 & 2 WORK TOGETHER. GUN #15 NOT LIVE REGISTERED.
12	23781390	2	1, 3		1, 2	FRONT OF 1 PL'S POSN GRAZING FIRE FROM 1 & 2.
13	24201380	2	1, 3, 4	5	4	1 & 2 WORK TOGETHER. 5 SPS 3 & 4.
14	24081370	2	1, 3, 4	5	3	1 & 2 WORK TOGETHER. 5 SPS 3 & 4.
15	23951360	2	1, 3		NIL	
16	23221410	14	11, 16	15	NIL	ONLY GUN #11 IS LIVE REGISTERED.
17	23401390	14	11, 16	15	16	NO LIVE REGISTRATION.
18	23281363	14	11, 16		11, 14	11 & 14 WORK TOGETHER.
19	23221385	14	11, 16	15	NIL	15 & 16 WORK TOGETHER.
20	23281310	14	11		NIL	

Figure 5. Machine Gun Target List.



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“They know exactly where we are and won’t shoot at us or mask our fire. They will be shooting well out and will concentrate on tanks rather than APCs. As the battle progresses, they may present us with a few knocked out BMPs, close in, but we’ll treat these as targets of opportunity. The second group into the fight will be our own TOWS. They will be firing into killing zones ALPHA and BRAVO. They also will be concentrating on tanks, and dismounted tank crews, that far out, don’t present any threat to us so we might at well save ammo. Our anti-APC guns will be next into action. We will still be under heavy artillery bombardment and I can’t see how I will be able to give any specific orders where and when to fire. I think I’ll delegate the authority to open fire to the platoon commanders once the enemy are into the killing areas. Our plan should be to wait until the leading elements hit the near edge of the zones, though. I expect that the leading tanks will be equipped with mine ploughs and that will be it for our minefield. These tanks, of course, will be priority targets for the TOWs, but I think we have to assume that they will get through the field. They will be channelized though and this will work to our advantage. How do we utilize our prior registration during this stage of the battle, Sarge?”

“Well we don’t, really, sir” he replied. In this case the gunners are probably farther ahead using their sights. If an APC is headed for one of the targets, the gunner could lay on it then wait for the right time to fire. In most cases, however, they will just use their range cards to give them the range to set on their sights. I say leave it up to the gunners which way they do it. You’ll notice that I’ve assigned different FPFs to each anti-APC gun. Those will be the general areas that they will operate in.”

“That’s great,” the CSM interrupted, “but we are bound to loose a couple of guns during the bombardment and there is no way of knowing which gun they will be.”

“In a case like that,” I interjected, “we just have to depend on the initiative of the platoon and section commanders. There isn’t a target out

there that doesn’t have at least two guns that can hit it. Some of them have as many as 10.”

Sergeant West and I shared a knowing glance. “Siting in pairs is one of the principles of deployment, you know,” I jibed. “I must remember, though, to mention the importance of advising everyone on the net the minute any gun is out of action.”

“The anti-personnel guns have already tied in with the anti-APC guns that they are supporting,” Sergeant West continued, “so the mopping up should happen automatically. What about the Artillery?”

“If the guns get on the ground in time and if the FOO gets up here, I intend to keep him in my hip pocket,” I said. “I plan on engaging with artillery as far out as possible to try and break up the Fantasian formations. I’m hoping to get some target grid assistance from the recce detachment and hopefully, there will be an airborne FOO around somewhere. Artillery is more effective against dismounted troops than our machine guns are so we will establish a drill that, once shells start landing in a target area, the anti-personnel gun will cease fire. The anti-APC guns should continue regardless, though.”

“The closer in the enemy gets the more confused things will become and the more we will become and the more we will have to depend on the initiative of the junior commanders,” I continued. “I think I will give free rein to section commanders from 400 metres in and to individual guns from 200 metres in.”

“That’s all you can do, sir, at that stage,” the CSM said.

“I’ll have a chat with the senior NCOs on the importance of maintaining proper rates of fire, though. What happens if the enemy attacks at night?”

“That’s a distinct possibility,” I said. “What are your comments of that one, Sergeant West?”

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“Some of the guns have Crew Served Weapon Sights,” he answered. “I expect that they will form part of the overall surveillance plan. (That’s something else I have to get a grip on, I thought) I think they are all anti-APC guns and as the AP ammo is all tracer it will provide good target indication for the mop up guns. Don’t you think a bigger threat is smoke, though, sir.”

“Yes” I answered. The Fantasians are known to use a lot of it. They might lay a smoke screen in front of us and attack through it; they might drop smoke shells right on top of us; or, the lead tanks might mount smoke dischargers to provide cover for the BMPs. Hopefully, this is when your efforts will bear fruit, Sergeant West.”

“That’s what registered targets are all about, sir,” he replied. “When firing through smoke, though, our hit probability goes down and our ammo expenditure goes up. The secret is knowing when to start firing and when to stop. If we are lucky, it will be real windy and the smoke will break up quickly, leaving holes. Anyone who can see must send immediate contact reports using target numbers as reference points. It’s then up to the platoon commanders to react. Unless we have the target area under constant observation and can confirm that the fire is effective, we should limit these shoots to one minute at rapid rate.”

“Agreed,” I said noting it in my notebook. “I suppose what we really need is a couple of OPs way off on a flank or preferably in a helicopter. The recce det will be great for early warning but they won’t be able to help us much in this regard.”

“Hold on a minute!” the CSM said. “What about that TOW section off on our right flank. Any smoke on us shouldn’t effect them and they have a good view of killing zone BRAVO and the area east of the new minefield.”

“Great idea,” I answered. “They can tell us exactly what’s happening and advise us if our fire is effective. It’s a shame that the section on the left can’t do the same with killing zone ALPHA.

“I’ve got another idea for that one,” Sergeant West interjected enthusiastically. “I’ve been waiting patiently to lay this one on you. I had a chat last night with the Master Corporal who runs the PPS15. Right now, you’ve got him covering the gap; really he’s just a back-up for the recce det. My plan is that we move him over to between number 8 and number 9 guns and have him zero in on target number 8. He says that he can see through smoke and can differentiate between tanks and APCs. He can advise the guns the second the BMPs arrive in that area. I figure that this will give the two guns enough time to ambush them at target 5. Target 5 is really just a reference point. That’s a nice, flat piece of ground out there and the belt of fire from the .50 Cal will stretch all the way to the minefield without rising higher than the roof of the APCs. We’ll be creating a wall of death for them. The GPMG can then chew up the whole area using searching fire.”

“Great idea if it works,” I replied. “What do you think, Sergeant-Major?”

“Why not,” he replied. “Let’s face it, we are going to be fighting for our very lives. It’s little tricks like that, that just might get us all out of here in one piece. Digging that radar in so that the artillery doesn’t blow it up before we get a chance to use it will be a real test of our ingenuity but I’m sure we can come up with something.”

I glanced at the diagram and target list and commented, “these things are getting handier all the time, Sarge. I notice that all of 1 Platoon’s guns can hit number 5. If 1 and 9 get knocked out, there are three other guns to fill in behind them.”

“Not quite, sir,” he replied. “At that stage of the game, we want to leave number 10 free for immediate response on target 6. That’s 2 Platoon’s last hope. I had a long chat with the two platoon commanders on it and they’ve agreed, subject to your concurrence of course, to give targets 6, 10 and 12 priority status. A request for fire on one of them will result in three minutes rapid rate ASP.”

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“Yes, I’ll go along with that,” I replied. “In fact, I’ll even go one step farther. If those platoons are overrun, our very existence may be decided in the time it takes to send a radio message. What say we agree that a red flare, fired by me or by one of the platoon commanders, results in every gun not in action somewhere else, firing three minutes rapid at either 6, 10 or 12. Every red flare after that means another three minutes.”

“I’ll support that,” the CSM said. “That flare brings up the problem of communication, though. I remember what the radios were like during the first part of this war and if Ivan decides to pull a little EW on us, we can forget about talking to each other.”

“I know,” I answered. “That’s been bothering me all along. That’s why I decentralized control to the lowest possible level. Everyone is going to have to know what the overall plan is and do their part regardless of a lack of executive orders. We don’t want to use flares except in an emergency as too many of them could be confusing. I think our only hope has to be line.”

“I agree,” the CSM said. “We have line laid now to each platoon headquarters and I think we still have three phones left over. Each platoon also carries two or three for internal use. I’ll get onto the sigs NCO as soon as we are finished here. We’ll come up with a plan to connect all key areas. The only problem I foresee is that TOW section but I’m sure we will manage some how. We got an additional 10 miles of wire last night so we might also have enough to lay double lines to the more critical spots.”

“Yes, do that,” I said, “and be sure to bury them well. I expect that this place will be chewed up like Paschenclaele before we get a chance to fire a shot back at them. Once we are in contact, we don’t want to have to worry about switch boards or counting rings. We will go to a hot line policy. Every phone off the hook and in somebody’s hand. That way, everybody hears everything. Make sure that gun number 11, down by the road, gets a phone as well. They are so close to us, we might tend to forget about them.”

“Roger,” he replied. “I’ll run a couple of lines back to 3 Platoon as well. While we are talking about them, most of the control measures we’ve discussed don’t really apply to them. Just how will you control them?”

“Very loosely,” I said. “I’m going to keep the QRF in my hip pocket and dispatch them verbally as I see fit. Once launched, they will have to operate by radio, using call signs 14 and 14A. The machine guns won’t have a platoon commander with them so I’ll delegate the authority to open fire to the section commander. The situation will be desperate if the enemy gets into those two rear killing areas, but if they do, those guns back there just might save the day. I’m hoping, though, that they don’t get too involved. I’m counting on using them as a rear guard when it comes time to withdraw out of here.”

We sat looking at each other for about 30 seconds. I broke the silence by saying; “well, I can’t think of anything else. If you two will leave me alone for half an hour, I’ll organize these notes of mine into some semblance of order. Why don’t you get onto organizing the telephone system, Sergeant-Major? You look like you could stand a shave and some breakfast, Sergeant West. I’ll see you both at the conference.”

### **Range Cards**

The co-ord conference went well and left me with a confident feeling that we were ready for anything that might come our way. I ordered maximum rest then, following my own instructions, put my head down for about four hours. I awoke just after four o’clock and, after a cup of coffee, decided to visit the forward platoons and quiz some of the troops; just to see if my instructions had found their way down. As I strolled past the CP, I almost tripped over the company HQ GPMG, sitting on it’s tripod doing nothing. “Never did get around to siting you, did we,” I said to myself. “I wonder what else I’ve forgotten to do. Oh well, I’ve got 19 guns working for me so I suppose we can afford to keep this one here as a mascot.”

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I walked up the road to 2 Platoon and stopped at the first machine gun. It was a .50 calibre loaded with ball ammunition. One crew member was sleeping under the overhead protection, but the other was alert behind the gun.

“Has the war started again yet, sir?” he asked. I assured him that it hadn’t and asked him what his mission was. “We’re a mop up gun, sir,” he replied. “We are tied in with numbers 3 and 4 guns. They knock out the APCs and we mop up the crews. We are primarily concerned with the killing zone BRAVO. The GPMG, over there, will be taking care of the closer in targets.

“What happens if you can’t see those targets?” I asked.

“Then we have to use the data on our range card, sir. Master Corporal Smith, our section commander, is in that trench over there. He has a telephone and will receive instructions, over it. He will shout a target number to us and say either lay or fire. If its lay, we let him know when we are on and await his order to fire. If he says fire, we start firing as soon as we are on and fire normal rate for one minute.”

“You seem to be on top of everything here,” I said. “May I see your range card, please.”

“The section commander did the diagram,” he said as he handed me the piece of cardboard. “My partner and I did the rest, though.”  
**(See Figure 6.)**

I studied it carefully, suddenly realizing that this was the first time I had seen a properly made out machine gun range card.

“What’s that dark line up the centre?” I asked.

“That’s our setting ray or zero line,” he answered. “It lines up with the edge of the woods out there in the killing area and helps us orient the card in a hurry.”

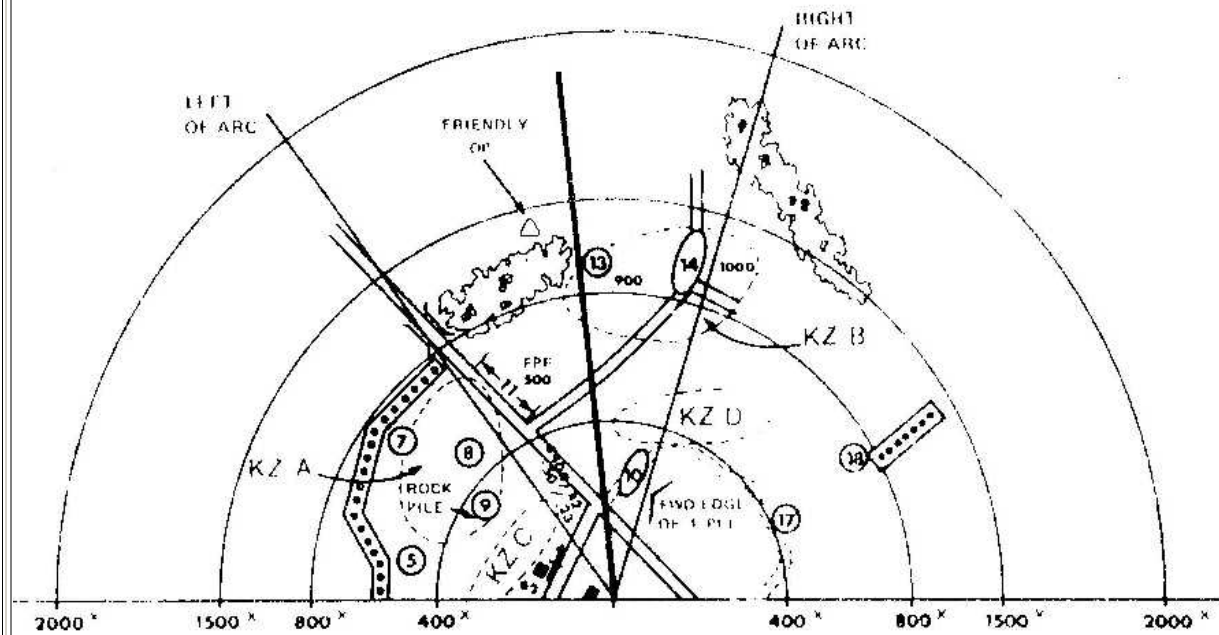
“You certainly have a lot of detail on your diagram,” I commented. “Do you really need it all? Say for example, why do you have targets shown that are outside your arc?”

“Those are just reference points, sir,” he answered. “Who knows, we might be the only ones who can see through the smoke. The lieutenant said to make sure that every target we could see was on our cards. We don’t have the targets on the other side of 1 Platoon shown because they are on the other side of the hill from us. We cheated a bit on the ones on the left, as well. We can’t see them right now because of the barn but we figure that once the shells start failing, that barn won’t be there very long.”

Here’s a soldier who’s really using his head, I thought. I hope I’ve got a hundred more just like him. At that point, the first Fantasian recce plane flew low over the position. I decided that the time had come to give some serious thought to how we were going to go about withdrawing from this position and quickly made my way back to company headquarters.

# NUMBER FIVE GUN'S RANGE CARD

(Figure 6)



POINT FROM WHICH MADE OUT:		GR 2348 1432 - #5 GUN				
METHOD OF OBTAINING RANGE:		MAP / LIVE REGISTRATION				
MADE OUT BY:		MCPL SMITH				
MAG BEARING OF ZERO LINE:		2175				
DATE:		23 JUL				
TGT NO	TARGET	TYPE	RANGE	SWITCH	ELEVATION	REMARKS
11 (FPF)	ROADWAY	TRAVERSING	500	L400/R2	-50/23	RIGHT EDGE LAY, 20 CLICKS TRAVERSE, 1 CLICK ELEVATION PER FIVE CLICKS TRAVERSE #1 GUN APCS
10	FRONT OF 1 PL'S POSN	POINT	350	R325/R3	-110/10	GRAZING FIRE, 1 MIN RAPID ON VERBAL COMD, 3 MINS RAPID ON RED FLARE
13	OPEN AREA NEAR EDGE OF WOODS	POINT	900	R75/L4	+25/40	KILLING AREA BRAVO, #4 GUN FPF, #3 & 4 TO ENGAGE APCS FIRST
14	ROAD T-JUNC	SEARCHING	1000	R250/0	+45/23	NEAR EDGE LAY, 5 X X5 MIL INCREASES IN ELEVATION THEN RETURN #3 GUN FPF KILLING AREA BRAVO

Figure 6. Number Five Gun's Range Card.

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## The Proof in the Pudding

The rest of the story is history. That night the Recce det reported movement in front of them and they hit us at first light. For some reason, they didn't use smoke to cover their first assault and this proved to be their undoing. The opening bombardment was devastating, though, and we lost two machine guns right off. The TOWs mangled the tanks in the first wave. Three from the second wave got through to 2 Platoon's position but were destroyed by M72s.

The big attack came about 1400. By this time our own artillery was on the ground and the air was full of aircraft; both ours and theirs. That attack was a humdinger. We were completely smoked off and our radio net was useless. I ended up firing five red flares and 3 Platoon killed three BMPs in killing area FOXTROT. How we managed to hold on to that piece of ground, I'll never know. Our casualties were over 50 by this time, including both forward platoon commanders, and the two forward platoons were down to four machine guns between them. I don't think we could have withstood another assault. I'll never forget the order to withdraw. The secure voice net was out, so the message came in OPSCODE. It read: BDE IN NEW POSNS. DISENGAGE AS BEST YOU CAN. WELL DONE AND GOOD LUCK.

We had just started the withdrawal when 1 Platoon reported another assault wave clearing the gap. Sergeant West stayed behind on 3 Platoon's position with two HMGs, a Carl Gustaf and the two surviving TOW APCs to help us make a clean break. We never saw any of them again.

On the way back, we were pounded mercilessly from the air. When we finally reached our own lines, I was down to six vehicles and 28 personnel, most of them wounded. The price had been high but I suppose, in the long run, it was worth it. The main positions held and the Fantasian offensive was a failure. The colonel gazed into his empty glass for a moment then said: "that's quite a story. Someday you should put it down on paper."

"Nothing you have said, though, detracts in any way from your right to wear that decoration. You may have had some help, but you are the one who put it all together. Besides, Canada needs heroes right now. I do hope that you wrote Sergeant West up for a posthumous award?"

"I tried," the Major replied as he got to his feet, "but that's the funny part of the whole thing. I'm sure it's just a computer error of some sort, but the Army says the he never existed. I think it's now time that we rejoined the party."

## Epilogue

This work is based on how machine guns should be used on the battlefield of today. But what about the battlefield of tomorrow? As we design our techniques to make the most of the equipment we have today, we must also change these techniques to take full advantage of new equipment that will become available in the future. As professionals we must be constantly looking ahead and preparing for change before events overtake us. The techniques used by Sergeant West and his young company commander worked for them and will probably work for all of us should we go to war tomorrow. Will they still be applicable five years from now, though?

The number of machine guns in an infantry battalion will probably increase rather than decrease. New types will be developed that will be both more lethal and more complicated. There will be an increasing need for trained soldiers to man them. The idea of making each soldier a machine gunner was tried once and it failed. Machine gunning must once again become an honourable profession with hard establishment positions for machine gunners in each APC platoon. Old ideas die hard, but organizations are designed by men and can be changed by men. Nothing is so sacred that it can't be overruled by common sense. The need for detailed and ongoing co-ordination of a company's machine guns will be with us as long as we have guns. The company commander has neither the time nor the technical knowledge to fill this role. Possibly, there is a requirement for a machine gun sergeant

on the establishment of each company headquarters?

There is little time to dwell on these problems as the future is already upon us in the form of the Grizzly WAPC, our newest infantry vehicle. There is no comparison between the gunner of an M113 and the one in a Grizzly. The M113 gunner is also the crew commander while the Grizzly commander has a hatch of his own. The M113 gunner has a crude mount, one belt of ammunition and is hopelessly exposed to the enemy. The Grizzly gunner is well protected in a powered, steel turret. He has two guns, both conveniently located for servicing. He uses a five power optical sight unit and has 6000 rounds of ammunition readily available to him. Regardless

of all this he can still dismount both guns in a matter of minutes for use in the traditional ground mounted role should the situation dictate.

These vehicles are coming off the assembly line now. Within the next two years, all battalions not equipped with M113s will have them. How will we use this new piece of kit? Will we change our tactics and drills to take full advantage of this massive increase in fire power available to the rifle platoon? Will we change our organizations and training programmes to recognize the obvious need for dedicated gunners as members of the vehicles crew? Or will we flounder on our merry way as if nothing has changed? Maybe someday I will write an article on it.

<b>Terms and Acronyms</b>	
<b>AP</b>	Armour Piercing
<b>APC</b>	Armoured Personnel Carrier
<b>C2</b>	Canadian 7.62 Light Automatic Rifle
<b>CFP</b>	Canadian Forces Publication, Field Manual
<b>CMR</b>	Canadian Mounted Rifles
<b>CP</b>	Command Post
<b>CSM</b>	Command Sergeant Major
<b>conc area</b>	Concentration Area
<b>DS</b>	Directing Staff, Instructors
<b>FPF</b>	Final Protective Fire
<b>GPMG</b>	General Purpose Machinegun
<b>HQ</b>	Headquarters
<b>kit</b>	Personal Equipment
<b>MCPL</b>	Master Corporal
<b>MMG</b>	Medium Machinegun
<b>O Group</b>	Orders Group
<b>OP</b>	Observation Post
<b>PPCLI</b>	Princess Patricia's Canadian Light Infantry
<b>QRF</b>	Quick Reaction Force
<b>recce</b>	Reconnaissance
<b>TEWT</b>	Tactical Exercise Without Troops
<b>US</b>	Unserviceable
<b>Very Light</b>	Pistol Aerial Flare