

THE PUFF RANGE

By LCol (Ret'd) Ted Creech

30 Fd has continually strived to improve the realism of its training. This is a short article about one piece of equipment 30 Fd utilized for the Forward Observation Post parties (OP) - the Puff Range.

Prior to 1965 the Regiment was accommodated in an old church hall, Ste Anne's Hall (528 Old St Patrick Street). Very tight for space, there was insufficient space for dedicated OP training equipment. In 1965, 30 Fd was ordered to move to the Dows Lake Barracks. In preparation for this move, the Commanding Officer, LCol George Andrews, initiated planning for the construction of an OP trainer. (1) Thus, shortly after the move, construction of a Puff Range was started in an empty room measuring about 30 by 30 feet.

This first Puff Range copied other OP training equipment of the time. It consisted of an elevated contoured map to represent the terrain (to practice artillery fire planning), as well as seating for the OP parties and guests. Underneath the map, a grid line was drawn corresponding to the Grid references of the map above. There was sufficient height under the map, about five feet, to manoeuvre a small mobile generator (The "Puffer"). This produced the small "puffs" of smoke, on demand, to represent impacting artillery rounds. The idea was for the OP party to applying fire orders based on what they saw on the map. The generator operator under the map, and in hearing range, would move the generator to the corresponding floor target location and send a puff of smoke through the map at the requested grid reference. (note "Puffer" smoke coming from behind the house chimney)



The original puff range was modelled after an east west piece of ground near Kingston along highway 401. This made sense as that's where all the Tactical Exercise Without Troops took place at the Command and Staff College as well as Militia Command and Staff Course. After 18 years of use, in 1983, it was showing its age and was not very visually appealing. Rob Kelly, a lieutenant at the time, approached the firing Battery Commander, Lieutenant Colonel Colin Marmo, to inquire if he could rebuild the whole thing. Providing a plan and very rough budget, Rob acquired Marmo's approval. With some guidance from Captain Bob Balma (the Regular Force support officer) Rob started the rebuild. Fortunately, at the time there was a good amount of money in the budget and a willing contingent of the gunners who were hired on Class A Service for the construction.

As it was at the height of the Cold War, Rob decided we should do our training / fighting on real terrain of West Germany – the likely area for future battle with the Communists. Utilizing a ton of German maps provided by Colin, Rob looked through them for a suitable area. He was looking for a highway running down the middle just like the previous Puff Range and a bonus would be a north south orientation to make the map reading easier for the users. The area chosen was 20 km south of Nuemberg, southern Germany. It roughly corresponds to the box formed by Jahrsdorf on the NW corner, Mindorf the SW corner, Weinsfeld the SE corner and

Meckenhausen the NE corner. (look these up on Google maps and compare to the Puff range model and you'll see the outstanding replication done by Rob's team).



After tearing down the old Puff Range, Rob's team started on the floor. It was stripped down as best they could and re-painted grey with new grid lines marked in narrow tape. He recalls using a director to make sure all the lines were straight. Switching to the top part of the Puff Range, they then built the map contour lines with a wooden frame, shrinking the scale every kilometer so that the Observer to Target (OT) factor would work correctly. Next they laid hessian over the frame. On it, they painted terrain features including roads, streams and different colours for the fields.

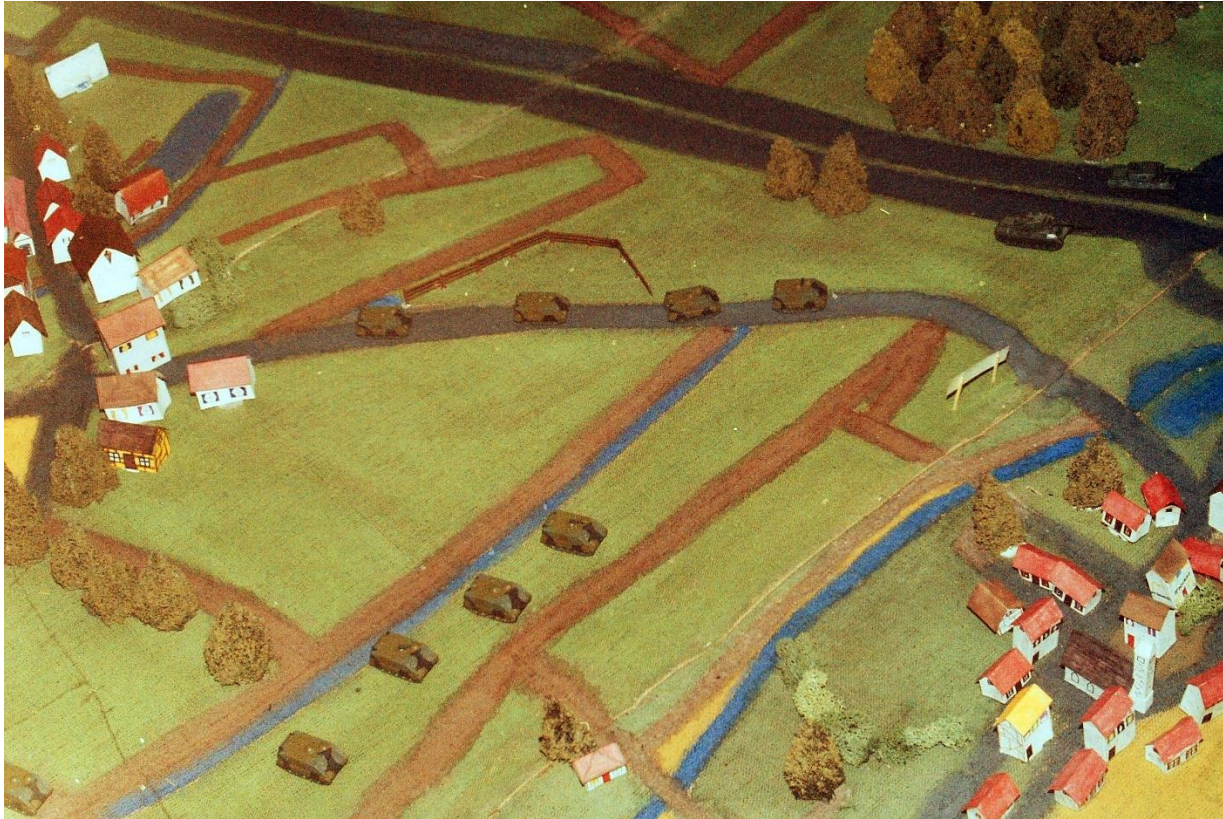
Probably the most labourious task was making the houses and the trees. For trees they used "horse hair" which they cut into the shape of a tree, painted green and then covered with model railway flock purchased from Hobby House. A lot of trees were made in various scales to match the scale on the map. As for the houses, they made a ton of those in different sizes but they looked the part. One of the shops was even named "Marmo's Pipe Shop" (in German) to add some flavour. As each village had a church with its spire, the OPs quickly found out that shooting a bearing to the spires was an easy way to do silent zone. Some of the soldiers thought it strange that they were being paid to make trees and houses - but someone had to do it!

The bleachers were already made and accommodated three, three man OP parties (FOO, signaler and OP Tech). A hole was cut in the middle of the bleachers for one OP party to simulate a dug-in trench, though it wasn't used too often. A camouflage net could be draped over it which

looked good for “Dog and Pony” shows (VIP Visits). They also built a wooden compass in the bleachers.



A local artist was paid something like \$200 to paint a sky background around the range. Micro armour vehicles were purchased and used to set the scene for the training as well as replicate the development of the battle. It took longer than anticipated to build the range, but all the workers were very proud of the final result.



During the late 1980s, advances in computerized OP training aides, with more realism, started to make the Puff Range appear obsolete. While the basic drills could still be trained, when the headquarters offered an OP computer training aid, Westland Indirect Fire Trainer (WIFT), it was decided to dismantle the Puff Range and install the WIFT (2). This was done around 1990.

The Puff Range trained OP parties for over three decades. During this time there were countless, humorous stories of what happened in this room. Some stories include: the smoke generator not co-operating and a soldier being furnished with a pack of cigarettes for the day to replace the generator smoke; memories of our Australian exchange officer (Major Peter Farrell), giving some excellent lessons on shooting (without subtitles); as well as many antics that accompany soldiers while training.

Of all these stories, the most notable ones include the training method LCol Marmo used in the Puff Range to simulate chaotic battle conditions. During his training, junior officers and gunners were exercised on both artillery and infantry tactics and procedures. Marmo usually started off slowly in staging his scenario for the initial fire plan. Gradually he built up the pressure by introducing a host of realistic scenarios. As your turn as the FOO progressed, so too did the pressure. At the peak of your fire plan, Marmo was simulating Combat orders, tight time lines, incoming bombardment reports, fire orders, situation reports, simulated radio traffic, all the while moving model combat vehicles to match the scenario and piping smoke into a broken Puffer from his pipe for simulated artillery rounds. Sometimes it was comical and all the time valuable lessons were learned.

For over thirty five years our Puff Range was an effective OP training aid. Its utilization groomed a host of competent officers and Non Commissioned Officers, including a future Army Commander. It was a good piece of kit.

Notes:

- (1) Courtesy of LCol Bernie Brule
- (2) Courtesy of Capt Phil Low
- (3) The bulk of this article was based on an E Mail from Captain Rob Kelly, who built the Puff Range. He later became a FOO and served a tour in Afghanistan.
- (4) Lt Tom Greer, now with the Toronto Police Service, kindly provided the images utilized in this article.

