

## Counter Battery Fire at Gallipoli – 1915

### [Slide 1 – Intro]

Ladies and Gentlemen, General Stevens, Good evening. I'd like to thank the General, Nick Floyd, the 2 associations and ADFA for this opportunity, my first in many years. And I'd like to say from the outset, I am indebted to the presenters of the first Seminar who gave to me some solid leads on what I plan to present to you tonight. MAJ **Daryl Kelly** has kindly provided some artefacts you are welcome have a look at. I'd like to make this presentation more a "discussion point" rather than anything authoritative; I have been unable to access unit diaries for example.

The bottom line up front, firstly, what we see at Gallipoli, and for that matter, the first half of the war, is a watershed moment for field artillery transitioning from being an infantry support weapon designed to smash infantry tactics (Squares, Columns and Linear Frontal assaults) or thwart the Cavalry Squadrons as we'd seen at Waterloo, Gettysburg and Sedan / in the century beforehand, into a battlefield operating system in its own right. Secondly, Counter Battery Fire, as we as modern day gunners understand and practice it, did not exist as such in 1915. Yes, we had certainly seen artillery-on-artillery engagements for many years, even centuries, and MAJ **Daryl Kelly** highlighted to us two very good examples in his presentations<sup>1</sup>. I believe those actions are best characterised as an "artillery duels". Most of the artillery systems of the day were infantry support weapons and that for artillery, 1915 / 1916 was a defining time. When we compare the artillery of 14/15, to that of late 16 onwards, we see an incredible difference and we see this no more so than in Counter – Battery operations. Counter Battery operations, as we understand it, came about the next year on the Western Front. These are perhaps bold ascertains, but for those of you who know me, that will come as little surprise.

And I would draw to your attention a distinction of the times, not apparent in modern artillery, the distinction that existed between field, horse, garrison and siege artillery. Already the Field and Horse branches were close as were Siege and Garrison. The revolution was two-fold in that these changes applied to Field Artillery and we witness the merging of the various streams into one element as the Royal Artillery.

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<sup>1</sup> One example was a one-on-one duel in which the Australian 18-pdr detachment was killed and the other of infantry laying down suppressing fire, the guns being rushed up to great effect but when the action was repeated, the Turkish artillery destroying the Australians.

## [Slide 2 – Indirect Fire]

I'll start the defence of my position with a quick run over Indirect Fire, an essential element of Counter Battery work as we know it.

- In 1915, the indirect method of firing of artillery, esp in the British Army, was still a novelty. We'd seen it in a limited manner before such as at Waterloo when a battery of RHA chaps had fired shrapnel indirectly against advancing French troops at Hougoumont<sup>2</sup>.
- In 1882, Russian published a book on indirect firing<sup>3</sup>. After the Russians, it would appear it was first translated into German and not English for many years.
- In the late 1880's, the Germans invented the sighting system<sup>4</sup> which along with clinometers, allowed them to lay a bearing and elevation. Despite the conservatives, indirect fire becomes doctrine in the German army by the 1890s. In the early 1900s, the Germans (Goertz) developed an optical sight for laying.
- The British had been halfheartedly experimenting with indirect fire techniques since the 1890s, and were the first to apply the theory in practice in 1899 in South Africa, although they had to improvise without a sight equal to the German one.
- But by the early 20th Century, the chief exponents of the indirect method remained the Germans and the Russians. And to make an obvious statement, the military advisors to the Ottoman's were the Germans.
- The British Ordnance board that met following the Boer War sent into production systems such as the 18-pdr and the 4.5in Howitzer but the howitzer in fewer numbers. The deployment ratio was about 3:1 in favor of the guns.
- As for the French, the famous "75" was a product of their experience of the Franco-German War of 1870 where they were decidedly out-gunned and out-maneuvered.
- The novelty of indirect fire is possibly captured by one estimate of 75,000 French soldiers being casualties of friendly artillery in the four years of World War I, most of those apparently occurring earlier in the war<sup>5</sup>.

## [Slide Three – Geography (of Gallipoli)]

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<sup>2</sup> Perret, Brian; *Against All Odds!: Dramatic Last Stand Actions*; Cassell 2000; discussed during the account of the Hougoumont action.

<sup>3</sup> Lieutenant Colonel KG Guk publishes: *Indirect Fire for Field Artillery*, a practical method of using aiming points for indirect fire.

<sup>4</sup> The Lining-plate or "Richtfläche".

<sup>5</sup> General Percin, 1921 *Le massacre de notre infanterie, 1914-1918*. Percin supports his claim with hundreds of items of battlefield correspondence from all parts of the Western Front

Now just a quick reminder of the terrain.

- The peninsula runs roughly south-westerly into the Aegean Sea.
- Up north, its narrowest point (near Agora) it was protected by a wall about 6.5 km long, the length of the peninsula from this wall to its southern extremity, is about 77.5 km.
- The peninsula was a designated “fortified area” by the Turks, an indicator of things to come, this fact was apparently known and as a military planner, I have a distinct preference for avoiding areas described as “fortified” unless absolutely forced to deal with them.
- At ANZAC Cove, we have features with names such as: “Baby 700”, “the 400 Plateau”, “Hill 971”, Battleship Hill, to give you an indication of the heights being encountered.
  - The beach itself is about 600m in length, and was always within 1 km of the front.
  - The beach was sheltered at some points, exposed to observation and fire at many.
- So, we are talking about a very compact, steeply sloping battlefield and the advantage is going to be with those possessing the heights and therefore observation and plunging fire. A defender is not only firing up hill, and 18-pdrs has a problem firing at higher elevations thanks to their pole trail, but a miss of the ridge is likely to only result in the round harmlessly flying off into the waters not that far beyond. The Turkish need only emplace their guns on those ridges or site their more numerous howitzers in the dead ground. Remember, their German compatriots arguably understood the indirect problem best at that time.

#### **[Slide 4 – Another Map]**

The purpose of this view is simply to try and give you another perspective on how compact the battlefield was. It was approx 6-7 km at this point (Anzac Cove to Midos / Eceabat).

And to state the obvious, compact battlefields make heavy calibre gunnery support difficult, e.g. naval guns which I’ll highlight later, lest we go injuring or killing our own.

#### **[Slide 5 – Turkish Artillery]**

[I will not spend much time here as the Professor has already covered this information. But I will say that the leading exponent of the indirect method at the time were Germans who were of course the advisors to the Ottomans]

Turning to equipment for a moment.

The most common types of Ottoman field artillery encountered were the 75mm & 77mm guns similar to the French 75, and the 105mm howitzer comparable to the British 4.5 in.

German-designed and manufactured by Krupp, the 75-mm and 77-mm field guns were typically grouped into four-gun batteries. Each Ottoman division was supposed to be supported by six batteries of field guns, but more likely three or four.

The 75-mm Krupp M03 L/30 Field Gun had a range of 6000m and Turkey had purchased a substantial quantity (648) from before the First World War, although many were lost in the Balkan Wars. (After 1916 Germany supplied the Turks with both types of the standard German Army field gun: the 77-mm Krupp M96 L/27 nA (range 7800 m) and the 77-mm Rheinmetall M16 L/35 (range 9000 m).)

The German (Turkish) 105 Feldhaubitze 98/09 was built by Rheinmetall, an old-fashioned, fixed-recoil weapon delivered to the German army in 1898 so is relatively modern; between 1902 and 1904, it was redesigned, by Krupp, with a new recoil mechanism and a new carriage.<sup>[2]</sup> However, it wasn't accepted for service until 1909, hence the ending designation 98/09. Existing weapons were rebuilt to the new standard. As usual, two seats were attached to the gun shield. There were 1,260 in service at the beginning of World War I.<sup>[3]</sup>

The 105 used three different types of ammunition and the sights were marked with various meter scales and a it had dial sight for both direct and indirect fire. It used 7 or 8 charges increments and had two types of HE rds in the 16kg range and a 13kg shrapnel rd. So, it was a rather capable system albeit short ranged by modern standards.

**If you would like a closer look at some Turkish guns, there is a pair just out here at the Duntroon Gun Gates.**

And just for interest's sake, in the bottom left corner is the German (Turkish) Krupp C64 6-pdr that was so effective in 1870 defeat of the French and I think, even to the casual observer, you can see the design influences between it and the French 75 developed in response.<sup>6</sup>

### [Slide 6 – British and French]

As I said before, the designs of the French 75 and the 18-pdr were derived from their respective experiences in the Franco-Prussian and Boer Wars as well as studies of the American Civil War. The 75 mimicking and improving on the Krupp 6-pdr Field guns that had proven so deadly against them in 1870.

One can imagine the French experience of 1870, repeated in late 1914, of German infantry rapidly moving on foot in Regimental or Battalion Columns, attempting to out-flank the larger French formations or of their cavalry squadrons even more rapidly trying to do the same. These outflanking tactics reinforced the British experience in South African and the activities of the horse mounted Boer. These guns, with their shrapnel rounds, could theoretically lay down a withering, devastating fire against these tactics – concept is proven.

When the Great War began, British field guns (13 and 18 pounders) were equipped solely with shrapnel shells, with a fielding ratio of 3-1, field guns to howitzers (5 inch and 4.5 inch).

### [Slide 7 – 18-pdr ammo]

Turning now to the ammunition, and the 18-pdr ammo in particular. The 18-pounder shrapnel shell contained **374**, ½ inch spherical lead balls. [And I have some examples here the inch wide ball is from naval shrapnel and the ½ inch, slightly smaller than a glass marble, there 374 of these in each shell]. **Bullets.** A time fuse was set to function in the air in front of the target, blowing off nose and firing those bullets forward in a cone, like a shotgun, effective up to about 300 yards from the point of burst. For maximum effect, the angle of fire and descent had to be flat, not plunging. Some math-a-ma-tactics for you: at a theoretical max. rate of fire of 20 rounds per minute, and the Logisticians amongst you can do the maths for supply, at 20 rds per min, a single gun could deliver **7,480** bullets per minute at a far greater range than machine-guns– a 2 gun detachment – nearly **15,000 (14,960)**, a 4 gun battery / troops / detachment – almost **30,000. Per minute.** And these are not my calculations, they are, from

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<sup>6</sup> Breaching loading, IIS 1868, 78.5mm, 750kg in action, HE Shrapnel, Case Shot and ammo contained within a large, heavy limber.

what I have been able to discover, part of the basis upon which the Ordnance Board developed the systems. So they are not weeks old, these calculations are over 100 years old.

The gunners of the time were expert at quickly emplacing their guns and closely supporting the "fire and movement" tactics of the infantry with very accurate and devastating shrapnel fire. So when facing the expected out-flanking movements of late 1914, the concept is completely validated.

But, what happens the infantry do the next obvious thing (and the opposing artillery for that matter, the Cav having gone off for schnapps and medals)? When they dig in or put armored shields around them? Shrapnel, especially lead shrapnel, is not so useful. It's not any good against earth works or steel shields.

Enter the HE round. But, the first trial firing of HE TNT in action was only in Oct 1914 (31 October 1914) by **70 Battery RA**<sup>7</sup> on the Ypres front and was assessed as "quite successful", demonstrating it could destroy enemy guns and kill troops. From then on Britain increasingly supplied 18-pounders with high-explosive shells – that was in late 1914 and over in Gallipoli, it was the poorer second cousin, the second Front (the third if you consider the larger campaigns in Eastern Europe).

A major lesson learned in 1914 was that the doctrine of placing field guns in open or semi-exposed positions made them vulnerable to enemy artillery fire, direct fire – e.g. an "artillery duel", so more use was to be made of sheltered or hidden positions. Therefore, the Forward Observer and later the Aerial Observer became crucial.

Another bold ascertain by Harris - the 75 and 18-pdrs, were an infantry support, horse drawn, long range, "super heavy shot-gun". They were designed for, and used in a manner similar to what we would now use a 40mm automatic grenade launcher for – high volume lethality intended to suppress, disrupt and kill a lightly protected or mobile enemy.

## **[Slide 8 – CBF at Gallipoli]**

Gallipoli and in particular the attack at Lone Pine.

10 min
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<sup>7</sup> **70th Battery**, 34th Brigade RFA and 54th Battery, **39th Brigade RFA**

From this diagrammatic I'd like to remind you that the area is compact. The terrain is mountainous. The only / best means of locating enemy artillery are spotters, mostly ashore emplaced around the battlefield, perhaps some in a balloon (a nice obvious sitting duck) or these new fangled aero-planes (there were 2 sea plan carriers at Gallipoli).

In the first seminar, CMDR David Stevens reminded of just how rudimentary the Naval Gunnery Support solution was. Comms was via semaphore, lights or some very basic wireless systems – Mr Marconi had only invented his contraption in the late 19<sup>th</sup> century, the first trans-Atlantic transmission being in 1901, and the sets of the day were big and very heavy – if you had one.

So, first problem, finding them. Second, getting the information to the guns, third - hitting them.

### **[Slide 9 – HMS Bacchante]**

At the Battle of Lone Pine, the CBF role was assigned to this now somewhat outdated Cressy Class Armoured Cruiser, the HMS Bacchante (sorry for butchering the pronunciation) which possessed a couple of 9in guns and a bunch of 6in guns with respective ranges of 14 and 11 kilometres. The RN was reluctant to get in too close as to late May 15, it had already lost, 5 x Battleships, albeit of the obsolete Pre-Dreadnought type, with the loss of over 1500 sailors<sup>8</sup>.

So, we have the problem of finding and fixing, the CB platform moving (being a ship), having to deal with the risk of hitting own troops with these large calibre low angle guns – problems that are still are grave concern when calling for NGS and all the while, the Captain determined to preserve his ship. And then we have a defenders advantage. Sit at a peak or just on the reverse slope and firing in defilade. No doubt, when the naval guns found their target, the effect was devastating.

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<sup>8</sup> (French *Bouvet* mined and sunk on March 18 1915, 660 men killed, HMS *Irresistible* mined and sunk on March 18, 150 men killed, HMS *Ocean* mined and sunk on March 18, little loss of life, HMS *Goliath* torpedoed and sunk on May 13 at Cape Helles, 570 men killed, HMS *Triumph* torpedoed and sunk on May 25 at Anzac, 78 men killed, HMS *Majestic* torpedoed and sunk on May 27 at Cape Helles, 49 men killed).

## [Slide 10 – Conclusion]

So with the end of the Gallipoli campaign in Dec, in just 6 months we have seen some dramatic changes.

From the middle of the 18<sup>th</sup> century to the middle of the 19<sup>th</sup>, artillery is thought to have caused about 50% of battlefield casualties. Preceding 1914, it is thought this fell to as possibly low as 10%, the remainder to small arms. By the end of WWI, The Royal Artillery, numbered over one million men, was larger than the Royal Navy (the pre-war balance of power dominant super-weapon) and artillery was thought by some to have inflicted as much as 90% of all casualties<sup>9</sup>.

In 1915, we are on the cusp of change. As I researched this topic, one comes across the elements of the thought processes: “these tactics and systems worked once, they now don’t, let’s try this idea (what ever that idea was)”. No doubt this was occurring not just in Gallipoli but also on the Western Front.

A number of years ago I heard the idea that it was on the Somme in Jul-Aug-Nov 1916 that the British Army learnt to fight a modern war. An appalling notion I think as you don’t lose half a million men to “learn”, you should be learning such profound lessons on peace-time exercise, not in battle. But when I look at what occurred throughout the war and particularly here at Gallipoli in contrast with just 18mths later at places like Cambrai (Nov/Dec 17) and Hamel then at (Jul 18), especially in terms of artillery and the subject, Counter Battery Fire, I can see how the idea arises, although I still stubbornly reject it on morals grounds. Numerous developments since 1915 matured at Cambrai<sup>10</sup>, such as predicted artillery fire, sound ranging, infantry infiltration tactics, infantry-tank coordination and close air support.

In 1916 we major developments in gunnery, tanks first appear, new infantry tactics = this is the first moment of what we now call manoeuvre warfare.

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<sup>9</sup> Bellamy (1986), pp. 1–7, cites the percentage of casualties caused by artillery in various theaters since 1914: in the First World War, 45 percent of Russian casualties and 58 percent of British casualties on the Western Front; in the Second World War, 75 percent of British casualties in North Africa and 51 percent of Soviet casualties (61 percent in 1945) and 70 percent of German casualties on the Eastern Front; and in the Korean War, 60 percent of US casualties, including those inflicted by mortars.

<sup>10</sup> Battle of Flers-Corcellette, a Battle within the Somme Offensive, Sep 16, first use of tanks 32 of 49 sent – was also the debut of Canadian And New Zealand Divs on the Western Front.



*Ultimately, the Artillery of Britain, the Empire and France was revolutionised – 1914/15 was a watershed moment.*

*Thank you.*

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