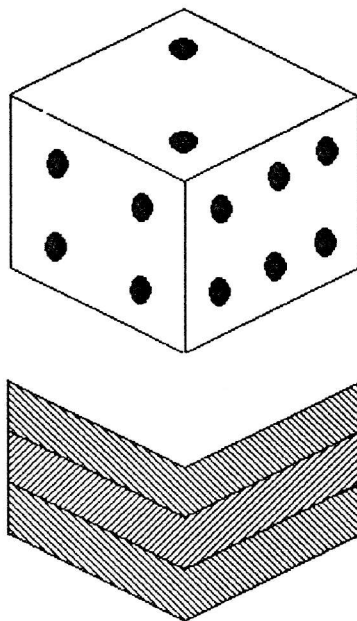


Rank and File



Journal of the Tunbridge Wells Wargames Society

Issue 94/1

April 1994

What's Been Happening ?

Well, it has been much too long since I last put finger to keyboard. As usual there is a distinct dearth of articles for our illustrious journal, which I hope you will all rectify over the next few weeks.

What has happened since the last issue ?

In January we moved our week day meeting from a Tuesday in the pub to a Thursday in the Hall. This was caused by the uncertainty about the future of the Imperial, and the wish to have the flexibility to not have to decide one week in advance what will be played, and without having to get to the pub very early to be sure of getting two tables which are the same height. The pub situation was quite likely to have caused some internal friction in the end, which the Club does not want.

The Thursday evenings have been very successful, and we have attracted at least two new members to these meetings. The atmosphere is pleasantly informal, and there is more mixing between games than there used to be in the pub. DBA has become very popular, as have John Hurst's Perfidious Albion rules (see article elsewhere in this issue). We also had the space to plan our Club Demonstration Game for the Open Day, with the results reported below.

The Club Open Day in February was also a great success. We must give Clive a hearty vote of thanks for all the work he put into the organisation. He never got flustered with the problems which did arise on the day, at least he kept it well hidden if he did. Well Done. The Club did less well at the painting competitions this year, but the club display, for the first time ever in my recollection we actually did put on a display at our own open day. All the sterling work which was put in by my colleagues (loosely described as the SF Group) paid off and we were voted the best display game on the day (by impartial judges I must stress). All the midnight oil that was burned, in my case the 01.00 a.m. oil on the morning of the day paid off.

Science Fiction Rules, o.k.

The game, Frozen Assets, used our Science Fiction Rules, "**Into the Laserzone**", which have now emerged into their third edition. Other buyers have actually written back to us saying that these are enjoyable, fast, and give a good game. One has said they are as good as DBA, which I think is high praise. We put much work into getting them right, and John Hurst's collaboration has added a naval flavour to the rules, just before the Open Day, hence the 1 a.m. oil. Part of our belief, or at least my belief, but I think that my colleagues will support me, is that if you produce rules, you are not in it to make pots of cash, but to further people's enjoyment of the hobby. Ideally any cash which you get gets put back into the production of improvements, or to post all the owners of the rules any amendments we make.

Any way, enough of this rambling on. If anyone is interested in a copy of these rules, or getting into a game with them, just ask, do not be afraid (but make sure you are on Chris Avery's side, otherwise he will fry you!) Budding purchasers of the rules should part with £4.00, which gives you the rules, plus any amendments produced in the next year.

Wet Bobs

While we were producing the Laserzone rules, John Hurst was finalising his set of pre-Dreadnought naval Rules. We offered to do the treatment on these rules, which have now also been produced (again just in time for the Open Day) under the name "**Perfidious Albion**". These rules are based on the Fred T. Jane rules which were developed at the turn of the Century. You will note in early copies of Jane's Fighting Ships the drawings have chequered markings for armour. This was part of this system.

We refined John's initial rules and have produced an excellent set of rules suitable for small to medium sized fleet actions. The next expansion will be to allow for World War One, though most early WW1 actions can be fought using these rules, later battles need to allow for better gunnery and longer ranges on later weapons. The final step may also be to do some rules for WW2 small actions, with the same system. We must see. During the testing phase, the British and French navies have been well pounded, and now we have also shown that the Swedish Navy was a match for the feeble effort that the British put up to protect the Orkney Isles. These have now been returned to the house of Bernadotte. The next campaign will concentrate on the Isle of Skye.

Who DID win Jutland then?

There seems to have been a re-kindling of interest in Naval action in the Club. George, John and myself went down to Dover to take part in a trial run of Jutland, organised, I think, by Ashford club and Mr P. Dunn, author of "Naval Wargames". The battle was being re-fought on the floor of the Duke of York's School hall, and we were not sure what this would entail.

The experience was very interesting. I took on the role of a beastly Hun, while George and John were press-ganged into the Grand Fleet under "Jellicoe" Cook.

The fleets were placed in the form of two markers each, which showed the initial positions of the scouting forces and the main battle fleet. One squadron had to be on each marker, then the rest could be deployed how we wished (within reason) behind the initial markers.

As fate would have it, the whole German High Seas Fleet ran into the British Battlecruiser Squadron, with some supporting light forces, while our light scouting forces and their British counterparts clashed in a very furious action, with torpedoes flying around in all directions.

The Battlecruisers and the High Seas Fleet duelled mightily, with the Germans coming off best, reducing the British to a sinking ruin for little return damage. The British Battlecruiser commander was signalling furiously to Jellicoe Cook, but the messages were not getting through. The German W/T was also suffering from atmospheric vagaries as well. When we finished the Grand Fleet and the High Seas fleet were about to clash and it is difficult to say who would have won that clash. At the time we stopped, on points the Germans won.

...so what of the future ?

We have plans to have a number of special one day events this year. There are no dates fixed yet so watch the Rank and File or the Club notice board for details:

There will be a re-run of the successful One Day DBA tournament which Clive and Malcolm ran last year. This should take place before the Summer holidays, I expect.

I would like to organise another Assault on Vailavenu, using Laserzone, possibly with a Full Thrust component, though I might dispense with this and run the space action on a separate day, with the results happening on the Planet at an appropriate time.

There will definitely be two major naval battles. One will be Tsushima, the other Jutland. John and myself will be organising these two days, and there will be a large amount of painting required to get my Jutland ships done in time. These games will be played with either General Quarters (definitely for Jutland) or Perfidious Albion (possible for Tsushima as it is a smaller battle).

In the Autumn we will be doing a re-run of the Arnhem game run a very long time ago. Not all of you have met General Gloßbäss von Nigling, well he won last time, it is rumoured, and he might be able to repeat his performance, given the right dice.

For all these events we need your support.

Membership

Please remember that you should by now have renewed your membership. Anyone who has not yet done so should contact either Malcolm Dove or Andrew Finch.

A list of members is attached to this magazine. You must be a member to enjoy the benefits of the discounts offered by companies on the list.

Big Guns...

EMPLOYMENT OF THE 3.7 AA GUN IN WWII AN HISTORICAL INVESTIGATION OF THE GREAT BRITISH ANTI-TANK GUN SCANDAL

by Russell Hanson

Having acquired a brace of the excellent Hinchcliffe models of this gun (20mm Equipment range) I hastened to deploy them against the Luftwaffe in Operation ramrod, in which BALLSAKER FORCE were defending the small North African port of El Ghouli in the forties.

The Germans employed their counterpart, the famous '88', firing HE direct in a bombardment role.

When Axis tanks broke into the British positions they were engaged by 40mm Bofors AA guns and I had the greatest difficulty dissuading excited gunners from attempting to use the 3.7's in an anti-tank role, saying they did not have AP ammunition.

I had not heard of the 3.7 being used in an anti-tank role in the Desert (unlike the '88' - all the illustrated histories being full of photographs of them with rings painted round the barrels to mark their 'score' of tanks). A friend who was in the Desert in the Tanks said it was because we did not have the imagination to make some small technical adjustment. This seemed to be confirmed by my reference book 'Weapons and Warfare of the 20th Century', where on page 280 it is stated that, in the Desert, 'a conservative obstinacy concerning the proper role of the 3.7 AA gun, a weapon superior to the German '88' in almost every respect, prevented its use in the anti-tank role.' On page 269 however, we are informed that 'the 3.7 AA gun ... was eventually used in many roles and became Britain's best anti-tank gun.'

So why wasn't it used in the anti-tank role in the Desert to balance the Germans' advantage with the '88' ? What was the reason for this 'conservative obstinacy' ? Why didn't Monty or Winston knock a few heads together ? I determined to try to find out.

Having recently made the acquaintance of an historian at the Imperial War Museum I wrote to him about it. He replied as follows:

"I understand from my contacts at the Royal Artillery Institution, Woolwich, that the British 3.7 AA gun was envisaged, from the start, as having a secondary ground role and was designed to take armour piercing or semi-armour piercing rounds. They also confirmed that the weapon was used as an anti-tank gun in North-West Europe in 1944-5, as well as in a medium support role and, occasionally, against field fortifications. Other theatres in which it saw service in support of ground troops included Italy and Burma."

So if it was 'envisaged, from the start,' as having an alternative anti-tank role why was it not so used until 1944-5 ? Now I was beginning to smell a rat. I telephoned my acquaintance at the IWM and he referred me to the Royal Artillery Institution. So I wrote to them. I attach a copy of the reply I received from the Historical Secretary.

Dear Mr Hanson,

Thank you for your letter ... concerning the employment of the 3.7-inch AA gun in WW2.

The 3.7-inch HAA gun was designed by Vickers for the AA role in the inter war years (1919-1939) to replace the WW1 3-inch 20 cwt HAA gun. It was not designed to have secondary ground role nor to take AP rounds. These alternative roles became a necessary requirement as WW2 progressed.

In the same way, Rheinmetall in Germany designed the 88 mm FlaK cannon for the AA role only.

There was however one essentially different design feature in these two - otherwise not dissimilar - guns. The platform of the British 3.7-inch gun was constructed from steel plates fastened by rivets. The 88 mm FlaK cannon platform was constructed from steel plates which were welded together - an inherently stronger means of fabrication.

Thus when the 3.7-inch gun was fired at 0° elevation at the fixed high charge needed for the AA role, the rivets were subjected to maximum sheer stress and zero compression strength - a situation not envisaged in the design stage. In the design stress analysis for the sheer stress in the rivets, the optimum angle of elevation considered was of the order of 45° to 50°. Not surprisingly, when the gun was fired at 0° elevation, rivets began to fail and the platform to break up.

There is evidence, after the War, in the 1950s in Malaya, when 3.7-inch guns were fired continuously at low angles of elevation at full charge that they lasted from 50 to 100 rounds before becoming unsafe.

The same order of stresses obviously applied to the 88 mm gun but because of the stronger welded platform construction, it survived.

One of the features common to both AA and Anti Tank guns is the need for a high muzzle velocity to cut down time of flight and so increase accuracy. From early on in WW2, the Germans discovered that they could use their 88 mm in an anti tank role without damaging the equipment, and did so. The British found that they could not. Admittedly, a small number of 3.7-inch AP rounds were produced, but these could only be used in a last ditch anti tank defence.

A reduced charge was produced for the 3.7-inch gun in WW2 so that it could be used safely in the indirect fire ground role at lower angles of elevation as a "medium" artillery weapon. This reduced charge, with its lower MV, was obviously not suitable for the anti tank role.

Both the 3.7-inch and 88 mm guns can be seen in the Museum of Artillery in the Rotunda at Woolwich.

So now at last we know ! The 'conservative obstinacy' in using the 3.7 in an anti-tank role was due to the small technical consideration that if it were so used the rivets would pop out and the mounting would fall to pieces ! 'Britain's best anti-tank gun' was only used as such in a 'last ditch anti-tank defence' in NW Europe while the 'small number of AP rounds' lasted. What a confession of British technical inferiority ! Rommel had used the '88s' against British tanks at Arras in 1940. We knew how effective they were. So why weren't the 3.7's sent to workshops to have their platforms welded ?

You may be sure that I shall be demanding answers when I go storming up to London to carry out a personal inspection of the 3.7 and the '88' at the Museum of Artillery. I'll probably take a sledge hammer !

Which only goes to show the sort of thing wargaming gets one into.

Editor's comment. I suppose in a wargame you could use the 3.7, and each time it is fired roll for extra effect, say 1 on a 1D6, deducting 1 from the roll extra each time it is fired, meaning it falls off its mount.

And little Guns

In preparation for his Alamein game, Russell also wrote to the IWM about anti-tank weapons in the Desert. He received confirmation that neither the Panzerschreck ('bazooka'-type) nor Panzerfaust ('stovepipe' with fat warhead type) were in action at the time. They also sent some photos of equipment that was in use by the Axis at the time, which Russell displayed on the day.

I repeat the list for your edification:

- 3.7cm PaK 35/36, with its derivatives for air-drop use, and late war for firing a hollow charge warhead similar to the Panzerfaust. This had a steel rod fitted into the bore of the gun.
- Panzerwurfmine (L), which is an anti-tank grenade looking like a failed collapsible umbrella. This had a range of about 30 yards.
- Hafthohlladung 3kg, was a magnetic hollow charge with three magnets. It was conical in form and required the user to actually contact the vehicle and stick the mine on board. The fuse was between 4½ and 7½ seconds. Typical Huns to be so accurate !
- Stielhandgranaten, were bundled stick grenades, which could be effective is lodged in the tracks or under the turret rim, but needed some accuracy in delivery.

- 2.8 cm Panzerbuchse, was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.
- They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".
- On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

References

1. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

2. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

3. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

4. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

5. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

6. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

7. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

8. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

9. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

10. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

11. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

12. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

13. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

14. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

15. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

16. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

17. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".

18. On the Italian side there were two smaller anti-tank guns, sometimes, but not often, mounted on lorries, whence they were fired. These were the Cannone Contracarro 37/45 and 47/32 M35. Both were shieldless and the later could be broken down for mule transport.

19. The German 2.8 cm Panzerbuchse was a tapered bore weapon, often referred to as a "squeeze gun", or at least it was when I started wargaming in the last 60s. There was a model of this in the Airfix Afrika Korps set. It was redundant in 1941 when armour got better.

20. They also had various anti-tank rifles or devices to convert rifles to A/T rifles. All were relatively ineffective. One funny device was even an anti-tank pistol, with folding stock, and fitted with a bubble-levelled sight (also fitted to anti-tank rifles). The documents on the pistol from the IWM refer to the Germans being "bemused by the gadgetry of the thing rather than its effectiveness".