View From The Trenches

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IN THIS ISSUE

EMOTICONS

With the growth of the InterNet, emoticons have originated to allow people to show expressions in text. I find these very useful for the printed word in general, so you'll see plenty of them in View From the Trenches.

An emoticon is created with keyboard characters and read with the head tilted to the left. Some typical emoticons are:

:-) *humour or smiley*
;-) *winking*
:-> *devious smile*
<g> *grin*
:-(*sad*
:-o *shocked or surprised*
#-(*hung-over*

PREP FIRE

Hello and welcome to the latest issue of *View From The Trenches*.

The focus this time around is almost exclusively on OBA - how to get it, how to use it effectively, how it was used in reality. There is also a set of excellent DYO variant charts for OBA.

I'd like to remind everyone that I am always on the look out for material for *VFTT*. Work is well under way on the next issue, and I also have a couple of articles lined up for various issues between now and the end of the year. Nonetheless, I'd still like to build up a collection of material waiting to be printed. In particular, I'd like to see more scenario discussions, CG analyses (anyone want to offer an in-depth look at how to win as either side in *KGP*?), tactical pieces; in short, more stuff on how to play *ASL* better. I'll accept submissions in any form, even hand written, although *MS Word v6.0* PC files are preferred if you have a computer.

Due to his army commitments, Neil Stevens has been unable to post a Crusader column this issue. He was able to call me last week to tell me that stock on much of the third party stuff is quite low at the moment, but he is expecting shipments from Kinetic Energy (*Time On Target 3*), and Critical Hit (assorted goodies) any time now, so check out the ad elsewhere for purchasing details. He also apologises for listing the wrong phone number in his price list last time! Also expected any time now are the new AREA ratings, so you'll be able to see if you've gone up or (more likely for some of us!) gone down!

I have received a note from Nick Edelsten saying that he is able to supply Raaco storage boxes (plastic boxes containing trays, ideal for counter storage) at wholesale price. For more details visit his Raaco page at **http://homepages.nildram.co.uk/~edels/raaco.htm**, or contact him at 22 Wey Lane, Chesham, Bucks. HP5 1JH, or by e-mail at **edelsildram.co.uk**. Watch out for an item next issue.

As I mentioned last issue, some years back, Jim Millard developed a 12 point CA system that saw print in the now-defunct 'zine *Fire For Effect*. Jim has now updated the system and is looking for playtesters, before submitting it to (probably) *Time On Target*. So if anyone would like to help a fellow *ASL*er, drop me a line and I'll forward a copy of his article to you.

Well, until next time, roll low and prosper.

Pete Phillipps

VIEW FROM THE TRENCHES is the bi-monthly British *ASL* journal. It costs £1.50 per issue (overseas £2.50), with a year's subscription costing £7.50 (overseas £12.50). Payment should be in pounds sterling, with cheques made out to PETE PHILLIPPS. Readers are reminded to check their address label to see when their subscription ends.

Issue 13 will be out early in May.

Copies of issues 7 onwards are available for the same price as a regular issue. *VFTT '95* reprints issues 1-6 and costs £3.00 (overseas £5.00).

All comments are welcome. Even better, contribute. Write an article. Design a scenario. Share your *ASL* experiences with others. *VFTT* allows you to communicate with other *ASL*ers. Don't be a silent voice.

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INCOMING

"0016 June 6, 1944: Three British gliders land within spitting distance of a critical bridge over the Caen canal waterway in Normandy. They seize the bridge in a brief firefight, set up a perimeter, withstand a few attacks, get reinforced by a battalion of the 6th Airborne Division, and together they withstand counterattacks all day long until relieved."

Yes, the new *HASL* module *Pegasus Bridge* should be out any time now. The battle is depicted by six scenarios (most small to medium size) and two CG (the first covering the entire action, starting with a night glider landing, the second covering just the daytime attacks) fought out over a single 22"x33" historical mapsheet. Airborne MMC, marked by a Pegasus symbol, are included to distinguish the paras from the Royal Marines. To reflect the problem of isolated units unable to evacuate casualties but forced to fight on, the rules allow for a percentage of non-KIA eliminated units to be retained as 'Walking Wounded MMC', who are similar to wounded leaders. Also included are a few new German AFVs (big guns mounted on armoured French taxicabs) with full Chapter H notes, and as a special bonus, Chapter K "Day Seven". The price is $30, so expect to pay about £25 over here.

As well as an advert for *Pegasus Bridge*, *The General* volume 31 number 2 contains a five page Mark Nixon article on snipers, and scenarios G35 'Going To Church', a short infantry contest tweaked slightly from the original version printed in *Back Blast*, and G36 'Hill of Death' which sees SS and Tigers storming Hill 112 (yes, the same hill featured in the modules *SS Schwere 102* and *King Of The Hill*!).

The Tampa Bay *ASL*ers are currently playtesting their backlog of scenarios and designing new scenarios for *Schwerpunkt 2*. This will contain twelve new scenarios, including several medium sized scenarios for players who prefer company and battalion actions. As before most theatres of operations will be covered, with one desert action under consideration this time, and several early war scenarios under development. There will also be analyses and designer's notes for each, and possibly some short articles. They are also kicking around a few other ideas.

The *March Madness '97 Scenario Pack* has been produced by Kinetic Energy Productions (producers of *Time On Target*) for everyone who attends the March Madness '97 convention in Kansas City later this month. It contains 12 tournament-sized scenarios on cardstock covering actions ranging from early war to PTO to desert to eastern front. 'Beyond the Pakfronts' and 'Sword Play' are updated from the original versions published in the now-defunct *ASL* fanzine *ASLUG*. The pack will soon be available for separate sale for those of us who unable to attend.

Front Line Productions is currently playtesting scenarios for its Guadalcanal module, *Edson's Ridge*. They are aiming for a fall '97 release, but won't promise anything until the module is closer to completion. The format will be the same as *Baraque De Fraiture*, although the accompanying booklet will be bigger than before. Other components are being considered for inclusion but these have yet to be finalised.

"The dead and very amateur newsletter *Trail Break* is being revived for a one off reprise issue. It is guaranteed to be filled with tripe, silly, silly tripe. It will be photocopied on the flimsiest stock. It will be cheap in every sense of the word. It will not be PC.

We present total crap with a big grin. Send in a SAE., but not one of those tiny ones from your leftover Christmas cards, a business sized 4" x 9.5" one. We'll send it back with the one-off enclosed, including the lowest form of gossip picked up at all the tournaments we attend, the scoop on the personal habits of your fellow *ASL*'ers, rebuttals to InterNet flamers, and even a few stock tips.

Send your SAE to Trail Break, PO Box 700, Goldens Bridge, NY 10526. If you are too cheap to afford a SAE photocopy a friend's or pick it out of his trash on garbage day."

Former *TB* editor Ray Tapio

On a more sombre note, Philippe Leonard is still struggling to produce a new issue of *ASL News*. It appears that the publisher (Miguel Ramis) has done nothing with the money and material (for *ASL News 31*) Philippe has sent him. Philippe is trying to get everything back so he can publish the magazine himself and honour the subscriptions as much as he can, but none of his phone calls are being answered. "Sad." sums up his unhappiness with the situation. I'm sure you all join with me in hoping he can get *ASL News* back in circulation again as soon as possible.

To end on a happy note, Big Time Software, the creators of the computer games *Over the Reich* and the upcoming *Achtung, Spitfire!*, have begun working on a computer conversion of *ASL*. The game has just entered development and will not been seen in stores for at least two years, but Big Time Software are known for producing quality games. Designer Charles Moylan commented that the computer version will be "True to the spirit of the game."

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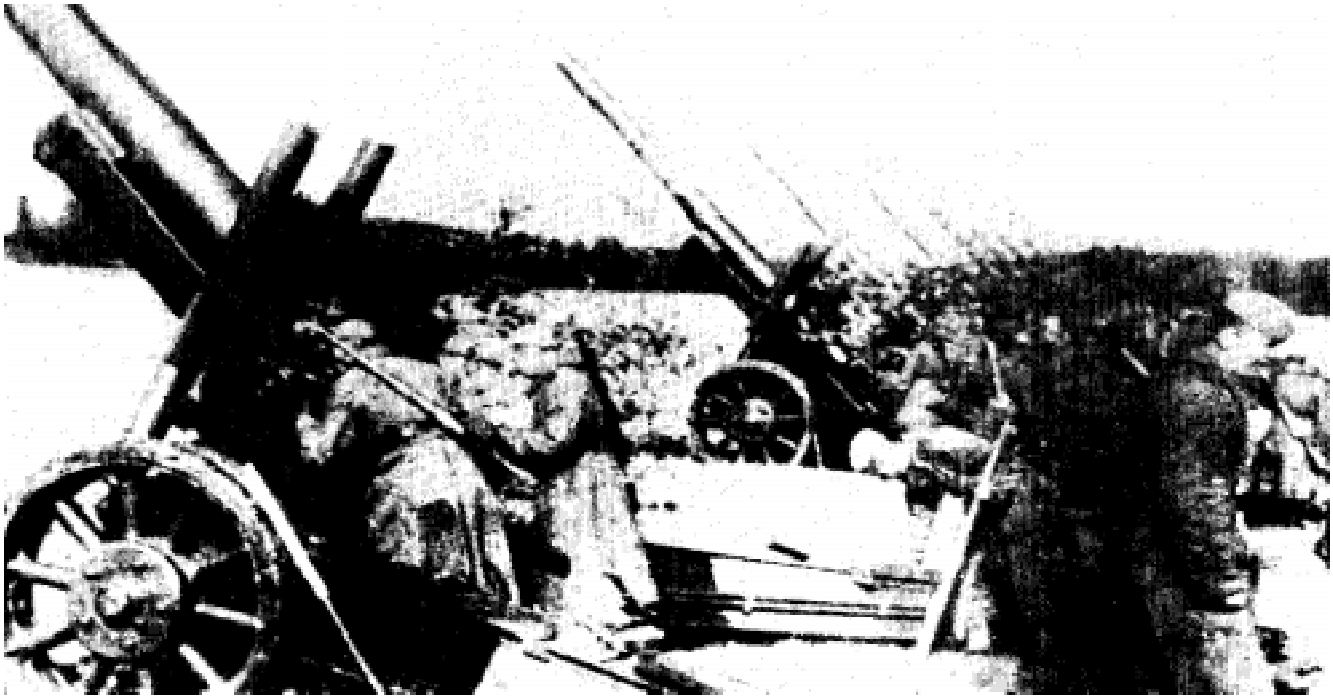
THE CRUSADERS PRODUCT PRICES

The following price list is effective from 1st March 1997.

For the latest on stock availability telephone The Crusaders on (01258) 459851.

Time On Target #1	£8.00
Time On Target #2	£14.00
Time On Target #3	£17.60
WCW Colour Scenario Pack	£8.00
Critical Hit #1	£6.80
Critical Hit #2	£8.00
Critical Hit #3	£8.00
Critical Hit #4	£8.00
Critical Hit #3-1	£11.00
Critical Hit Xmas Special	£13.60
SS Schwere 102	£5.60
Jatkosota	£10.20
Platoon Leader	£8.00
Cemetary Hill	£7.25
Aussie '96 Scenario Pack	£8.00
Rout Pack I	£6.80
Rout Pack II	£8.00
OAF Pack I	£8.00
Leathernecks	£8.00
Schwerpunkt	£8.00
Baraque de Fraiture	£12.75
God Save The King	£16.00
King Of The Hill	£16.00
ASL News #28	£8.00
ASL News #29	£8.00

All orders should have 10% added for postage and packing [EXC: Crusaders are exempt P&P charges] and be sent to me at 4 Monkton Down Road, Blandford Camp, Blandford Forum, Dorset, DT11 8AE.



A GRUNT'S GUIDE TO OBA USE

Many people have had difficulty with OBA, hence the recent release of the OBA flowchart in *Action Pack 1*. While the flowchart covers the whole range of OBA options, the basic OBA procedure is relatively simple, so I present this summary.

Before we start though, note that due to an omission that was only realised when *Yanks* came out, the ammunition types available to the German, Finnish, and Russian OBA modules were not listed. For the time being (until an errata page can be released) all such batteries have HE and smoke. For other nationalities, smoke/WP/IR/HE is given in the chapter H OBA tables.

GETTING OBA

An OBA module is represented by a Radio in your OB. Radios can only be used by a Good Order Leader (the Observer).

In your PFPh/DFPh, make a DR to establish Radio Contact. If successful, draw a chit from the Draw Pile (C1.211) - a Black chit grants Battery Access, which allows you to place an AR in a hex in the Observer's LOS. You then make an Accuracy dr (either 1 or 2 required, depending on nationality); if this was not gained make a Random Direction DR (B.8) to determine where the AR is placed. At this point, if you still have a LOS to the AR it is swapped for a Red SR, which ends the OBA action for that phase.

Radio Contact is lost immediately if the Observer loses his Good Order status. An Observer in an AFV must be CE or in an OP AFV to have a LOS to spot.

ACTIONS

At the start of your next PFPh/DFPh, roll to maintain Radio Contact (with a -1 DRM; -2 DRM for battalion OBA). If you succeed, you must perform one of the following actions:

Cancel the SR and attempt to place a new AR as before;

Cancel a FFE, losing Battery Access in the process;

If you have no LOS to the SR/FFE, you must Correct it (to a maximum of 18 hexes for a SR, 3 hexes for a FFE) or Cancel as above;

If you have a LOS to a SR and a Known enemy is in/adjacent to it, you may convert it to a FFE:1;

If you have a LOS to a SR you may Correct it up to 18 hexes and Convert it to a FFE (if there is no enemy in/adjacent after Correcting, it remains a SR);

If you have a LOS to a FFE you may Correct it up to 3 hexes or leave it, and continue the FFE;

If you have a FFE:C, you must first retain Battery Access by drawing another Black chit from the Draw Pile. You may then either replace it with a SR (can leave or Correct up to 18 hexes), convert it to a FFE:1 if an enemy unit is in/adjacent, or remove it and attempt to place a new AR.

For LOS purposes a SR/FFE has a Height equal to the Base Level plus 2 (EX: level 3 on a level 1 hill).

Failure to maintain Radio Contact means that a SR/FFE cannot be Corrected, Converted or voluntarily Cancelled. A FFE continues to be resolved as normal, with a FFE:C being automatically Cancelled after resolution.

FIRE FOR EFFECT

FFE does not affect Aerial units, those in sewers/tunnels, non-Vulnerable PRC, and certain Climbing units (B11.42).

FFE FP is not halved vs. concealed units.

To resolve a FFE, make a separate DR (adding TEM and other DRM, but not LOS Hindrances/SMOKE) for the FFE hex and each adjacent hex (the Blast Area). FFE also attack any unit which enters the Blast Area during the MPh, RtPh, APh, or CCPh. An Original DR of 2 results in a CH, in which case the FP is doubled and a positive TEM

is reversed (EX: +1 becomes -1).

HD, HA, and AF do not apply vs. AFVs, but TEM does. There is also a -1 for an OT AFV, a -1 if all AF are 4 or less, and a +1 if all AF are 8 or more. A Final DR less than or equal to half the Final DR that corresponds to a K/# results in a Burning Wreck; any other KIA result destroys the vehicle (the highest KIA# on that FP column is the maximum number of vehicles that can be affected). A Final DR that is a K/# or is one greater is an automatic Shock (if a turret hit) or immobilisation (if a hull hit). A MC or PTC has no effect other than on Vulnerable PRC Collaterally.

Units have their Morale lowered by one while within a friendly Blast Area.

After resolution a FFE:1 is replaced with a FFE:2, and a FFE:2 is replaced with a FFE:C.

A HE FFE is a two level LOS Hindrance but with a maximum +1 DRM regardless of the number of Blast Area hexes traced through.

TACTICAL CONSIDERATIONS

When OBA is central to your attack/defence, protect the Observer well. If the enemy SAN is high, give him an escort, such as a HS (this is actually a good practice even if he is in the rear rallying broken troops; until he is actually stacked with the troops, he is vulnerable). Although you may not feel you can spare a HS to act as Sniper bait, consider how important the OBA is - a SMOKE or a 100mm HE concentration is likely to be more effective than a 2-3 FP MMC attack almost any day.

If enemy fire is a bigger threat, consider using a higher quality leader. Admittedly, a 9-1 is very useful up front, but even with a lowly 7-0 troops move faster and rally almost as quickly; they also suffer less when he breaks or is KIA'ed!

Position is another thing. Rather than set up in a position to see (and be seen from) all the board, pick an area that lets you concentrate on your objective, or, if defending, your opponent's likely route of advance. Why allow your opponent the chance to concentrate his fire on your observer, especially if that's the only target he'll have while your units move up. Also remember to get your Observer in position before attempting Radio Contact, as the Observer cannot move while using a radio, only advance.

Always consider using Harassing Fire. Although the FP is halved, the doubling of the Blast Area usually makes it well worth it. Harassing Fire is ideal to deny an area to enemy movement, and can be particularly deadly if the enemy must move through the area.

Be wary of woods when OBA is present, as you are subject to a -1 airburst DRM instead of the +1 TEM. Even worse, a CH reverses the TEM and also adds the airburst, giving a net -2 DRM!

FFE TIMING

For maximum effect, you need to think about the timing of the FFE:1.

When you are attacking, it is probably best to try and fire the FFE:1 in your PFPh, even if solely to avoid walking into your own artillery! By working back through the procedure, and assuming everything works out as planned (and we all know how often that actually happens in *ASL*!), you ideally want to establish Radio Contact in the DFPh prior to your PFPh in which you want to see the FFE:1 land.

When defending though, you ideally want the FFE:1 to actually be landing in your DFPh, so try to establish Radio Contact in your previous PFPh. By having the FFE land in your DFPh, you also hinder the attacker's advances, although admittedly he can also use his advances to evade the FFE before your PFPh. In the next turn, the FFE:C interdicts his movement right through to the subsequent DFPh, particularly as you can correct the FFE:C for maximum effect.

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THE SECOND CARD DRAW

In some cases, a player must make an extra card draw for his OBA. These extra draws are intended to counter the 'Omniscient Player' syndrome, whereby the player is firing OBA against enemy units he knows about, but that the Observer would not in reality. Defining this intention in a clear rule is not easy, and the way the *ASLRB* does so seems to confuse some players.

To see if an extra draw is necessary, look at the board from the Observer's perspective. If there is an enemy unit Known to the Observer in the target hex or the adjacent six hexes, then no extra draw is necessary. In this case, the game designers gave the player the benefit of the doubt and assume that this unit was the one the player was shooting at, even if it is only a broken HS and the real target is a concealed stack of three HMG-armed squads with a 10-3 leader in an adjacent hex.

On the other hand, if the player can see any on-board ground units (concealed or not, but not HIP) in the target hex or in the adjacent six hexes but they are not Known to the Observer then an extra draw is necessary. In this case, the game designers assume that the player is abusing his ability to see things that the Observer on the battlefield cannot. Thus even though the unknown unit might be a wounded, disrupted, DM 6+1 leader and the real reason the player wants to put down artillery is to block an important piece of terrain, if the enemy unit is in the target hex or the adjacent six hexes, it forces the extra card draw.

Note that the extra card draw applies even when you use ammunition that is not 'harmful' like Smoke, and even when you use Harassing Fire, you only consider the target hex and the adjacent six hexes.

So, each time you place an AR or are about to convert a SR or FFE:C to FFE:1, look at the board as both the Observer, and a player. Then you'll be able to see if have to draw an extra card or not.

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OBA PR%BABILITIES

A TALE OF TWO TARGET TYPES

Tom "Sand Flea" Mueller

I don't know if anyone has done this in the past, but just what are the probabilities for Battery Access? Well, the math is actually very simple. If you have B black chits, and R red chits, you can arrange them in (B+R)! / (B! R!) different sequences. In order to get N fire missions out of the chits, you need a sequence of N black chits and one red chit, then the remaining chits in any order. There are (N+1) (B+R-N-2)! / ((B-N)! (R-2)!) different ways to do this. So the chance of getting exactly N fire missions is (N+1) (B+R-N-2)! B! R! / ((B+R)! (B-N)! (R-2)!). The results are shown in table 1.

IS THAT ALL?!?

From table 1 it is easy to see how many fire missions each of the different nationalities will average:

Allied Minor - 3	French - 4
American - 5	German - 4
Axis Minor - 3	Italian - 3.5
British - 5.33	Japanese - 3.33
Finnish - 3	Russian - 3.33

Chinese - 3.33 or 4 or 2.5

The best you can get is British OBA with plentiful ammo and pre-registered hex(es), which will average 6.67 fire missions. On the other hand, Chinese 3-3-7's with scarce ammo will only average 2.00.

PLEASE SIR, CAN I HAVE SOME MORE!

Once you draw the first red chit, you may want to know how many more fire missions you can expect. Or, you may want to know how many fire missions to expect before they get interrupted by the first red chit. Again, you have B black chits and R red chits. To get N fire missions, you need a sequence of N black chits, a red chit, then the remaining chits. There are (B+R-N-1)! / ((B-N)! (R-1)!) ways to do this, and these are shown in table 2 (the '0%' entries in this table are really probabilities < 0.5%).

Of course, now that you know the formulas, you can keep track, chit by chit, of your odds. And garner some very strange looks from your opponent. And never forget the intimidation/whining potentials from such a table :)

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		N FIRE MISSIONS											
B	R	Av.	0	1	2	3	4	5	6	7	8	9	10	11
11	3	5.50	3%	6%	8%	10%	11%	12%	12%	11%	10%	8%	6%	3%
10	2	6.67	2%	3%	5%	6%	8%	9%	11%	12%	14%	15%	17%	
10	3	5.00	4%	7%	9%	11%	12%	13%	12%	11%	9%	7%	4%	
9	2	6.00	2%	4%	5%	7%	9%	11%	13%	15%	16%	18%		
9	3	4.50	5%	8%	11%	13%	14%	14%	13%	11%	8%	5%		
9	4	3.60	8%	13%	15%	16%	15%	13%	10%	7%	4%	1%		
8	2	5.33	2%	4%	7%	9%	11%	13%	16%	18%	20%			
8	3	4.00	5%	10%	13%	15%	15%	15%	13%	10%	5%			
8	4	3.20	9%	15%	17%	17%	15%	12%	8%	5%	2%			
7	2	4.67	3%	6%	8%	11%	14%	17%	19%	22%				
7	3	3.50	7%	12%	15%	17%	17%	15%	12%	7%				
7	4	2.80	11%	17%	19%	18%	15%	11%	6%	2%				
6	2	4.00	4%	7%	11%	14%	18%	21%	25%					
6	3	3.00	8%	14%	18%	19%	18%	14%	8%					
6	4	2.40	13%	20%	21%	19%	14%	9%	3%					
5	2	3.33	5%	10%	14%	19%	24%	29%						
5	3	2.50	11%	18%	21%	21%	18%	11%						
5	4	2.00	17%	24%	24%	19%	12%	5%						

TABLE 1: The probability of getting X Fire Missions.

		N FIRE MISSIONS UNTIL A RED CHIT											
B	R	Av.	0	1	2	3	4	5	6	7	8	9	10	11
11	3	2.75	21%	18%	15%	12%	10%	8%	6%	4%	3%	2%	1%	0%
11	2	3.67	15%	14%	13%	12%	10%	9%	8%	6%	5%	4%	3%	1%
10	3	2.50	23%	19%	16%	13%	10%	7%	5%	3%	2%	1%	0%	
10	2	3.33	17%	15%	14%	12%	11%	9%	8%	6%	5%	3%	2%	
10	1	5.00	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	9%	
9	4	1.80	31%	23%	17%	12%	8%	5%	3%	1%	1%	0%		
9	3	2.25	25%	20%	16%	13%	10%	7%	5%	3%	1%	0%		
9	2	3.00	18%	16%	15%	13%	11%	9%	7%	5%	4%	2%		
9	1	4.50	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%		
8	4	1.60	33%	24%	17%	11%	7%	4%	2%	1%	0%			
8	3	2.00	27%	22%	17%	13%	9%	6%	4%	2%	1%			
8	2	2.67	20%	18%	16%	13%	11%	9%	7%	4%	2%			
8	1	4.00	11%	11%	11%	11%	11%	11%	11%	11%	11%			
7	4	1.40	36%	25%	17%	11%	6%	3%	1%	0%				
7	3	1.75	30%	23%	18%	13%	8%	5%	3%	1%				
7	2	2.33	22%	19%	17%	14%	11%	8%	6%	3%				
7	1	3.50	13%	13%	13%	13%	13%	13%	13%	13%				
6	4	1.20	40%	27%	17%	10%	5%	2%	0%					
6	3	1.50	33%	25%	18%	12%	7%	4%	1%					
6	2	2.00	25%	21%	18%	14%	11%	7%	4%					
6	1	3.00	14%	14%	14%	14%	14%	14%	14%					
5	4	1.00	44%	28%	16%	8%	3%	1%						
5	3	1.25	38%	27%	18%	11%	5%	2%						
5	2	1.67	29%	24%	19%	14%	10%	5%						
5	1	2.50	17%	17%	17%	17%	17%	17%						
4	3	1.00	43%	29%	17%	9%	3%							
4	2	1.33	33%	27%	20%	13%	7%							
4	1	2.00	20%	20%	20%	20%	20%							
3	3	0.75	50%	30%	15%	5%								
3	2	1.00	40%	30%	20%	10%								
3	1	1.50	25%	25%	25%	25%								
2	3	0.50	60%	30%	10%									
2	2	0.67	50%	33%	17%									
2	1	1.00	33%	33%	33%									
1	3	0.25	75%	25%										
1	2	0.33	67%	33%										
1	1	0.50	50%	50%										

TABLE 2: The chance of getting X Fire Missions before a Red chit is drawn.

Everyone knows that they must use the Area Target Type whenever they fire a mortar or attempt to fire SMOKE, but there are plenty of other times when it can be useful to use it with non-mortar weapons to fire HE.

First though, let's clear up the confusion that some people have over the Area Target Type and Area Fire. Area Fire has nothing to do with the Area Target Type, despite the word connection. The Area Target Type is just that, a target type, whereas Area Fire (TH DRM Case K) is a DRM (typically for concealment) that can apply to any attack, whether on the Infantry, Vehicle, or Area Target Type (an attack may even be subject to multiple applications of Case K, in which case the DRM is applied for each occurrence). Even though an attack may be subject to Case K DRM, a hit is still resolved as normal (I.E. at full FP for an Infantry Target Type shot, at half FP for an Area Target Type attack).

One other thing to remember that the Area Target Type can only be selected when firing HE, as per the second half of the first sentence of C3.33 - "it may be selected when firing HE (but not AP/HEAT/HE Equivalency; 8.31).".

THE BASIC DILEMMA

Several TH DRM do not apply to an Area Target Type attack, but a hit is resolved at half FP on the IFT. The result is that a hit is more likely, but is likely to be less effective. So do the benefits (a greater chance of hitting) outweigh the risks (the lesser chance of a result on the IFT)?

To answer this question, take a look at table 1, which shows the chance some common Gun calibres at ranges of 3-6 hexes have of getting at least a NMC from an attack. The chance of this is determined by multiplying the chance of getting a hit by the chance of getting a NMC result or bet-

Continued on page 15

HISTORICAL OBA CHARTS

Charles Harris

These charts are based on the various Ordnance listings for each nationality & time/theatre period and replace the original DYO charts with historical calibres. Whenever an entry has capabilities changed from the original the BPV value for that entry has been changed (sometimes only slightly) to reflect the increased/decreased capabilities of the new entry from the original entry. All of the entries refer to a specific weapon as listed in that nationality's Ordnance listings; however, I have not bothered to note which particular weapon each entry represents (except on my copies).

In compiling these charts several discrepancies were noted between the DYO OBA charts and the Ordnance listings for several nationalities. Whenever such a discrepancy occurred I considered the Ordnance listings to be correct and the OBA charts to be in error [EXC: the German DYO OBA chart lists an entry for 120+mm OBA in 1942 when none of that size were available until 1943; I assumed that this entry was for the 12cm GrW 42 and represents use of captured weapons prior to 1943. I assumed the same for the listing of 120+mm OBA on the Finnish OBA chart]. Also, it should be noted that according to the US Ordnance listings NONE of the US Ordnance can fire IR except for the 60mm mortars, I am not sure if this is an error or if it reflects an actual lack of this ability for US Ordnance.

As much as possible, I tried to have at least one entry of each calibre size weapon available to that nationality as OBA (or at least whenever it would make a difference in that particular OBA module's abilities). This is the reason why some nationalities have entries that greatly differ from the original (like the German 170mm and the British 84 and 88mm).

Whenever new nationalities (Allied/Axis Minors, etc.) are introduced into the system I intend to add updated OBA charts for them as well.

Since they are not listed in Chapter H, I have left all Rocket OBA entries unchanged from the originals.

With exact calibres listed, these charts are also ideal for users of the IIFT.

These charts are laid out in the same format as those found in the *ASLRB*, so you can simply copy them and paste them into your *ASLRB*.

Enjoy!

Ω

BRITISH NON-PTO OBA AVAILABILITY CHART

YEAR	1939-4/41	5/41-10/4	11/41-42	1943	1944	1945
DR: 2 BPV:	152{1} 202	152{4} 202	140{5} 162	107 140S	183 ^223	183 ^223
3	114{2} 133S	114 133S	114{6} 135	140 162	107 ^140S	183 ^243
4	84{3} 114S*	84 114S*	114{6} 135	140 162	107 140S	107 140S
5	114{2} 133S	88 108s	152{7} 202	183 ^242	183 ^242	183 ^242
6	152{1} 202	152{4} 202	88 108s	107 140S	140 ^162	140 ^162
7	114{2} 133S	114 133S	88 108s	88 108s	88 ^106s	88 ^106s
8	84{3} 114S*	84 114S	88 108s	76M 92S*	76M 92S*	76M 92S*
9	88{3} 108s	88 108s	76M 92S*	88 108s	76M 92S*	76M 92S*
10	88{3} 108s	76M 92S*	76M{8} 92S*	76M 92S*	88 ^106s	88 ^106s
11	88{3} 108s	88 108s	140{5} 162	76M 92S*	107 ^140S	107 ^140S
12	84{3} 114S*	84 114S	84 114S	88 106s	88 106s	88 106s
MAX. BPV:	202	202	202	242	243	243

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

^: OP tank possibly available (H1.46)

s: Can fire Smoke (but not WP)

S: Can fire SMOKE

{1} "94" (BPV: 141S) prior to 5/40 and in Norway

{2} "94" (BPV: 141S) prior to 5/40

{3} "76M" (BPV: 92W) prior to 5/40

{4} "114" (BPV: 163S) in 5/41 Crete

{5} "114" (BPV: 133) prior to 5/42 (S available 11/41-3/42)

{6} Can fire SMOKE prior to 4/42

{7} "140" (BPV: 162) after 9/42

{8} Can fire IR after 1/42

BRITISH PTO OBA AVAILABILITY CHART

YEAR	1941-10/42	11/42-11/43	12/43-9/44	10/44-1945
DR: 2 BPV:	76M{1} 92S*	88 108s	152{2} 202	152{2} 202
3	84 114S	88 106s	88 106s	107{2} 140S
4	84 114S	76M 92S*	88 106s	88 106s
5	84 114S	88 108s	76M 92S*	76M 92S*
6	84 114S	88 109s*	76M 92S*	76M 92S*
7	114 141S	88 108s	88 106s	88 106s
8	88 108s	76M 92S*	88 106s	88 106s
9	88 108s	76M 92S*	88 106s	107{2} 140S
10	88 108s	76M 92S	76M 92S*	76M 92S*
11	88 108s	76M 92S*	76M 92S*	107{2} 140S
12	76M{1} 92S*	76M 92S*	140{2} 162	140{2} 162
MAX. BPV:	141	114	202	202

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

s: Can fire Smoke (but not WP)

S: Can fire SMOKE

{1} Can fire IR after 1/42

{2} "94" (BPV: 141S) outside of India-Burma

US ARMY ETO OBA AVAILABILITY CHART **				
YEAR	**11/42-5/43**	**6/43-5/44**	**6/44-12/44**	**1945**
DR: 2 **BPV:**	81M 131W	203{2} 284	114{8} 200	105 ^158S
3	155 236W	155 ^236W	203{5} 284	100R 53
4	155{1} 236S	155 ^236W	81M 131W	203{6} 284
5	105 158S	105{7} ^158S	81M 131W	107 142W
6	105 158S	105 ^158S	81M 131W	81M 131W
7	81M 131W	81M 131W	105 ^158S	155 ^236S
8	81M 131W	81M 131W	155 ^236S	105 ^158S
9	81M 131W	107{3} 142W	107 142W	81M 131W
10	105 158S	81M 131W	75 95W	75 95W
11	105 158S	75{4} 95W	100R 53	81M 131W
12	105 158S	75{4} 95W	150R 79	150R 79
MAX. BPV:	236	284	284	284

M: Battalion Mortar OBA (C1.22)

R: Rocket OBA (C1.9)

S: Can fire SMOKE

W: Can fire WP (but not Smoke)

^: OP tank possibly available (H1.46)

{1} Can fireWP prior to 1/43 and SMOKE thereafter

{2} "155" (BPV: ^236S) prior to 11/43

{3} "105" (BPV: ^158W) prior to 7/43

{4} M2 60mm MTR prior to 7/43 (see US Ordnance Note 1)

{5} "155" (BPV: ^236S) in Italy after 10/44

{6} "155" (BPV: ^236S) in Italy prior to 3/45

{7} "114" (BPV: ^200) in Italy after 9/43

{8} "155" (BPV: ^236W) in Italy after 9/44

** All BPV are for Plentiful ammunition. Decrease BPV by 10% (FRD) for Normal ammunition, or by 25% (FRD) for Scarce ammunition.

US ARMY PTO OBA AVAILABILITY CHART **					
YEAR	**1941-10/42**	**11/42-5/43**	**6/43-5/44**	**6/44-12/44**	**1945**
DR: 2 **BPV:**	155 236W	81M 131W	155 ^236W	155 ^236W	105 ^158S
3	155 236W	155 236W	155 ^236S	203{3} 284	100R 53
4	75 95W	155{1} 236S	155 ^236S	81M 131W	203 284
5	81M 131W	105 158S	105 ^158S	81M 131W	107 142W
6	81M 131W	105 158S	105 ^158S	81M 131W	81M 131W
7	81M 131W	81M 131W	81M 131W	105 ^158S	155 ^236S
8	81M 131W	81M 131W	81M 131W	155 ^236S	105 ^158S
9	75 95W	81M 131W	107{2} 142W	107 142W	81M 131W
10	75 95W	105 158S	81M 131W	75 95W	75 95W
11	75 95W	75 95W	75 95W	100R 53	81M 131W
12	75 95W	75 95W	75 95W	150R 79	150R 79
MAX. BPV:	236	236	284	284	284

M: Battalion Mortar OBA (C1.22)

R: Rocket OBA (C1.9)

S: Can fire SMOKE

W: Can fire WP (but not Smoke)

^: OP tank possibly available (H1.46)

{1} Can fireWP prior to 1/43 and SMOKE thereafter

{2} "105" (BPV: ^158W) prior to 8/43

{3} "155" (BPV: ^236S) in prior to 9/44

** All BPV are for Plentiful ammunition. Decrease BPV by 10% (FRD) for Normal ammunition, or by 25% (FRD) for Scarce ammunition.

US MARINE COPRS OBA AVAILABILITY CHART **					
YEAR	**8/42-10/42**	**11/42-10/43**	**11/43-6/44**	**7/44-12/44**	**1945**
DR: 2 **BPV:**	105 158S	155 236W	155 236W	155 236W	100R 53
3	105 158S	105 158S	105 158S	155 236W	155 236S
4	75 95W	105 158S	105 158S	105 158S	155 236S
5	75 95W	75 95W	105 158S	105 158S	105 158S
6	81M 131W	81M 131W	81M 131W	81M 131W	81M 131W
7	81M 131W	81M 131W	81M 131W	81M 131W	81M 131W
8	81M 131W	81M 131W	81M 131W	81M 131W	81M 131W
9	75 95W	75 95W	75 95W	105 158S	105 158S
10	75 95W	75 95W	75 95W	75 95W	105 158S
11	75 95W	75 95W	75 95W	75 95W	105 158S
12	75 95W	75 95W	75 95W	75 95W	75 95W
MAX. BPV:	158	236	236	236	236

M: Battalion Mortar OBA (C1.22)

R: Rocket OBA (C1.9)

S: Can fire SMOKE

W: Can fire WP (but not Smoke)

** All BPV are for Plentiful ammunition. Decrease BPV by 10% (FRD) for Normal ammunition, or by 25% (FRD) for Scarce ammunition.

GERMAN OBA AVAILABILITY CHART					
YEAR	**1939-40**	**1941**	**1942**	**1943**	**1944-45**
DR: 2 **BPV:**	81M 92s*	81M 92s*	170 165	200R 95	170 165
3	81M 92s*	81M 92s*	81M 92s*	120 126s	81M 92s*
4	150 158	150 158	120 126s	170 165	200R ^95*
5	150 158s	150 158s	150 158s	150 ^158s	120 126s
6	105 106s	105 106s	105 106s	105 ^106s	150 ^158s
7	81M 92s*	81M 92s*	81M 92s*	81M 92s*	105 ^106s
8	81M 92s*	81M 92s*	81M 92s*	81M 92s*	81M 92s*
9	105 106s	105 106s	105 106s	105 ^106s	150R 79
10	75 63s	75 63s	75 63s	150R 79	75 63s
11	75 63s	75 63s	150R 79	75 63s	81M 92s*
12	75 63s	150R 79	75 63s	75 63s	75 63s
MAX. BPV:	158	158	165	165	165

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

^: OP tank possibly available (H1.46)

s: Can fire Smoke (but not WP)

R: Rocket OBA (C1.9)

FINNISH OBA AVAILABILITY CHART			
YEAR	**1939**	**1940-1941**	**1942-1944**
DR: 2 **BPV:**	150 106s	150 106s	150 106s
3	150 106s	150 106s	150 106s
4	105 71s	120 85s	120 85s
5	81M 63s*	105 71s	105 71s
6	81M 63s*	81M 63s*	81M 63s*
7	81M 63s*	81M 63s*	81M 63s*
8	81M 63s*	81M 63s*	75 43s
9	75 43s	75 43s	75 43s
10	75 43s	75 43s	81M 63s*
11	75 43s	75 43s	120 85s
12	75 43s	150 106s	150 106s
MAX. BPV:	105	105	105

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

s: Can fire Smoke

ITALIAN OBA AVAILABILITY CHART				
YEAR	**1935-7/41**	**8/41-4/42**	**5/42-11/43**	**12/43-1945**
DR: 2 **BPV:**	150{3} 124s	150{3} 124s	150{3} 124s	150{1;2} 100
3	150 122	150 122	75 49	105{2} 83s
4	81M 73s*	75 49	150 122	75{2} 49
5	75 49	100 81	81M 73s*	81M{2} 73s*
6	81M 73s*	81M 73s*	75 51s	75{2} 51s
7	75 49	75 49	81M 73s*	81M{2} 73s*
8	75 49	81M 73s*	75 49	75{2} 51s
9	100 81	75 49	105 83s	105{2} 83s
10	65 33	105 83s	100 81	100{2} 81
11	105 83s	75 49	81M 73s*	81M{2} 73s*
12	75 49	75 49	75 49	75{2} 51s
MAX. BPV:	124	124	124	122

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

s: Can fire Smoke (but not WP)

{1} Availability for 12/43-44 applies ONLY to Fascist Italians. Allied Italians in that period must roll again.

{2} Availability in 1945 applies ONLY to Fascist Italians. Allied Italians in 1945 use the "1945" column of the British Non-PTO OBA Availability Chart, as well as British radios/field phones (treating them as non-Captured) and OB card/chit allocations.

{3} Treat as "150" (BPV: 122) vs. Russians.

JAPANESE OBA AVAILABILITY CHART					
YEAR	**1937-1938**	**1939-1940**	**1941-1943**	**1944**	**1945**
DR: 2 **BPV:**	150 109W*	150 109W*	120 84	120 84	150 105
3	150 105	120 84	150 109W*	150 109W*	150r 109W*
4	120 84	150 105	150 105	150 105	150r 105
5	105 73W	105 73W	105 73W	105 70	105 70
6	105 70	105 70	105 70	105 73W	105r 73W
7	75 46W*	81 56	81 56	81M 61	81M 61
8	75 46W*	75 46W*	75 46W*	75 46W*	75 46W*
9	75 46W*	75 46W*	75 46W*	105 70	105r 70
10	75 45W	75 45W	105 70	75 46W*	90 64W
11	75 45W	75 45W	75 45W	90 64W	75 45W
12	75 45W	90 59W	90 59W	75 45W	120r 84
MAX. BPV:	109	109	109	109	109

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

W: Can fire WP (but not Smoke)

r: Treat as "75" (BPV: 122) vs. Russians.

RUSSIAN OBA AVAILABILITY CHART

YEAR	1939-1940	1941	1942	1943	1944-1945
DR: 2 BPV:	122 60s	107 50s	152 82	122 85s	160 113
3	107 50s	152 74	82M 49s*	152 98	152 105
4	152 74	76 30s	200R 74	200R 88	200R 95
5	76 30s	76 30s	82M 46s*	82M 58s*	82M 63s*
6	122 60s	122 60s	122 67s	122 79s	122 85s
7	82M 44s*	82M 44s*	82M 49s*	82M 58s*	82M 63s*
8	82M 44s*	82M 44s*	76 34s	76 40s	76 43s
9	82M 44s*	82M 44s*	120R 49	120R 59	120R 63
10	76 30s	80R 29	80R 33	80R 39	80R 42
11	76 30s	120R 44	76 34s	82M 58s*	85 63s
12	107 50s	76 30s	107 56s	76 40s	76 43s
MAX. BPV:	74	74	82	98	105

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

s: Can fire Smoke (but not WP)

R: Rocket OBA (C1.9)

G.M.D. OBA AVAILABILITY CHART

YEAR	1937	1938	1939-41	1942-10/	11/43-45 China{2}	11/43-45 Burma{2}
DR: 2 BPV:	105 67s	150 100s	150 100s	150{3} 100s	150 100s	150 100s
3	105 65	150 98	150 98	150{3} 98	150 98	150 98
4	81 55s*	105 67s	105 67s	105 67s	105 67s	105 65
5	84 52	84 52	84 52	84 52	84 52	84 52
6	84 52	84 52	84 52	84 52	84 52	81 55W
7	81 55s*	81 55s*	81 55s*	81 55s*	81 55s*	81 55W
8	75 41s	75 41s	75 41s	75 41s	75 41s	75 42W
9	76 39	76 39	76 39	76 39	76 39	76 39
10	76 39	76 39	76 39	76 39	76 39	105 70S
11	76 39	76 39	122 80s	76 39	76 39	75 42W
12	76 39	76 39	76 39	122{3} 80s	122 80s	150 103S
MAX. BPV {4}:	89	133	133	133	133	137

*: Can fire IR (E1.93)

s: Can fire Smoke (but not WP)

S: Can fire SMOKE

W: Can fire WP (but not Smoke)

{1} All BPV listed are for Normal ammunition. As per G18.42 & G18.82, if current G.M.D. Majority Squad Type is 3-3-7 or 3-3-6, decrease BPV by 1/3rd (FRD); if current G.M.D. Majority Squad Type is 5-3-7, increase BPV by 1/3rd (FRD).

{2} Use the appropriate column as determined by the G18.82 dr.

{3} China only. Treat as "75" (BPV: 41s) for scenario set in Burma.

{4} The #'s in this line are the maximum BPV for a 5-3-7 Majority Squad Type (see {1} above).

FREE FRENCH OBA AVAILABILITY CHART

YEAR	9/40-5/41	6/41-7/41	8/41-6/42	7/42-4/42	5/43-11/4	12/43-45
DR: 2 BPV:	152 202	81 108s	114 135	140 162	140 162	203 243
3	152 202	81 108s	81 108s	114 135	114 135	105 135
4	114 141S*	81 108s	76 84s*	81 108s	81 108s	105 ^140S
5	114 141S*	81 108s	81M 115s	81M 115s	81 108s	105 ^138W
6	81 114S*	81 108s	81M 115s	81M 115s	81 108s	81M 116W
7	81 108s	76 84s*	76 84s*	81 108s	81 108s	155 ^207S
8	81 108s	76 84s*	76 84s*	81 108s	76M 92S*	105 ^140S
9	81 114S*	76 84s*	76 84s*	81 108s	81 108s	81M 116W
10	81 114S*	76M 91S	76 84s*	81 108s	76M 92S*	75 84W
11	81 108s	76 84s*	76 84s*	81 108s	76M 92S*	81M 116W
12	81 114S*	76 84s*	76 84s*	81 114S*	81 114S*	105 ^140S
MAX. BPV:	202	108	135	162	162	243

M: Battalion Mortar OBA (C1.22)

*: Can fire IR (E1.93)

^: OP tank possibly available (H1.46 & H1.463)

s: Can fire Smoke (but not WP)

S: Can fire SMOKE

W: Can fire WP (but not Smoke)

(VICHY) FRENCH OBA AVAILABILITY CHART

YEAR	1939-6/40	7/40-7/41	8/41-10/42	11/42-3/45
DR: 2 BPV:	81 67s	81 67s	81 67s	155 122
3	155 122	155 122	81 67s	105 81
4	155 124s	155 124s	75 52s*	155 124s
5	155 124s	65 33	65 33	65 33
6	105 81	105 81	75 50*	75 50*
7	75 52s*	75 52s*	75 52s*	75 52s*
8	75 52s*	75 52s*	75 52s*	75 52s*
9	75 52s*	75 52s*	75 52s*	75 52s*
10	81 67s	81 67s	81 67s	81 67s
11	75 52s*	75 52s*	75 52s*	75 50*
12	75 50*	75 50*	75 50*	75 50*
MAX. BPV:	124	124	67	124

*: Can fire IR (E1.93)

s: Can fire Smoke

"CALL UP THE BIG GUNS!"

This article was originally posted to the InterNet ASL Mailing List. Unfortunately I forgot to note the author, and have been unable to trace him since. If you wrote this, or know the author, please contact me so that I can remedy things - Pete.

In the European theatre, artillery practice is one of the most fundamental doctrinal distinctions among each of the major combatants of WWII. Even if no other national-related distinction is made, any good tactical game must account for the different ways each of the major belligerents used their artillery. Let me try to briefly describe the differences in which the major combatants performed fire missions with their artillery (as opposed to how they organised and deployed it).

Most everything I have to say here is derived directly from a lecture I heard at the Origins gaming convention in 1994. Unfortunately, I cannot find my notes or the hand-outs from the lecture (my crazed filing system, I'm afraid), and I especially regret that I cannot properly accredit the gentleman who gave the talk. He was extremely knowledgeable and incredibly entertaining and what I learned at the talk I have not seen anywhere else. Drives me crazy because I've been looking for corroboration since, and I cannot believe data so fundamentally important to understanding the dynamics of WWII combat is not readily available. Maybe somebody could point me to a good source that will verify (or refute?) what I say below (by the way, I do not believe Bruce Gudmundsson's "On Artillery" covers the following in any meaningful detail; it was a major disappointment to me to find such detail missing. To be fair, as I remember it, Gudmundsson cites another source that he claims does have much detail not covered by he himself).

IMPROMPTU FIRES

What I will cover below relates to unplanned 'impromptu' fires, as opposed to the pre-planned and plotted fires delivered prior to an expected offensive. The pre-planned fires tend to be a special case of impromptu fires. Note also that the descriptions below largely tend to apply to relatively long distance howitzer fire. Mortars for instance, tended to use other techniques, such as walking shots into the target. Also, note that all nations had several techniques, and that each of the nations could and did make use of techniques used by the other combatants (except that nobody but the U.S. used the U.S.'s system.).

GERMAN PRACTICES

Germany had what most game designers (certainly among micro-armour aficionados, anyway) regard as the 'typical' system. Associated with each artillery battalion are specially trained Forward Observers (FO) who are detailed to travel with advanced elements which are being supported by the particular artillery battalion. For communications back to their artillery, the FOs had either a radio, or in the German case, more often a wire line strung out behind them going ultimately back to the battery. Yes indeed, I did say "wire". Apparently German artillery was a distant third behind the Luftwaffe and panzers for radio-communications equipment, and they had a wire-based system which they knew how to make work.

The position of the firing battery had to be surveyed to precisely locate it on a map. By survey, I mean the time-consuming whole nine yards of using transits (surveyor's telescope) and the like along with the hand calculations to get the battery's precise position on the map. Thereafter, the FOs, survey teams, recon units or whatever, would further survey major terrain features (whenever possible), and further add new 'known' positions to the map back at the artillery HQ. These locations became 'firing points'.

To call for fire, an FO had to scurry off to one of the firing points, and take an angle and range estimate to the potential target from the known firing point. Because of the need to do spotting from known points, and the technical training required to be part of this fairly complex system, only specially trained FOs were ever likely to call for impromptu fire support (I believe). The data was called in to the firing battery over the wire. Human computers back at the battery then did the trigonometric calculations (by hand or maybe with limited slide rule assistance) to calculate where on the map the apparent target was relative to the firing point, and from that then calculate the apparent angle and range to the target from the firing battery. Part of the calculation was to factor in the meteorological data (even a slight cross-wind can hopelessly throw off the accuracy of a shell fired through miles of the troposphere and stratosphere). Other variable also had to be factored in (gun wear, temperature, gun calibre, munitions type, etc). Now the battery was ready to fire one spotting round. Time from initial call-in to first spotting round: approximately 15 minutes. Then if the spotting round's explosion was visible to the FO, the FO could correct (i.e., "left 200, down 400 yards") and another spotting round fired and so on until one fell 'close enough'. At this point the FO could call "fire for effect" and the entire battery and/or batteries could open up.

One major problem of the above system was that apparently even trained observers tended to have something like 20% errors when estimating ranges from their position to the target. Along with all the other potentially unrecoverable errors (variable winds, uneven terrain, etc.), this could lead to some pretty wild initial spotting rounds and therefore to even more delay in delivering effective fire.

The calculations for subsequent spotting rounds could usually be made

much more quickly than for the initial round because it was likely the corrections would be relatively small. Therefore simple linear interpolations could be used to fudge to an adequate firing solution. Given that typical time of flight is something like 30 seconds, and needing several additional minutes for the necessary communications, calculations, and gun laying, I'd guess maybe 3-5 minutes is required for each extra spotting round.

However, when the artillery came down, it landed pretty much where Jerry wanted. In other words, the concept of 'drift' should have been largely irrelevant to an impromptu German barrage. On the other hand, however accurate the barrage may have been, given the above process, you have to figure a savvy target might have some idea what was coming.

The only really good thing you can say about the above system is that it was much better than what had previously existed. In World War I practice, it was virtually impossible to do impromptu fires unless the firing battery could directly see the target. So in comparison to WWI practice (and to the Russians), the German system seemed quite good, and even had some advantages over the British system (like accuracy; but I get ahead of myself.).

Of course, a battery could always engage in map fire (also known as blind fire) where essentially no reliance is placed upon initial spotting rounds. This apparently tends to result in fairly inaccurate results and tends therefore to be limited to harassing fires. It's probably reasonable to allow for some sort of 'drift' factor in the context of a game when engaging in such fire.

There are several optimisations to the above process to speed the delivery of effective fire. First, any previously targeted location could have fires very quickly brought against it because all previous firing data was logged and could be easily reused (you'd better believe they saved that data, given what a bother it was to calculate). Also, fire could be fairly quickly and accurately delivered against targets located near a known firing point (read that as 'near a previous target') because the necessary calculations were relatively easy to perform to correct for small target location changes. Consequently, if most of the places the Germans needed to shoot at could be ascertained ahead of time, there is little reason to see why individual German batteries could not fire as effectively as U.S. artillery (see below).

In a prepared defence (or in a prepared attack) the battery could in theory have any number of pre-plotted firing points so that effective fire could be quickly delivered as needed. This technique is also known as 'registered' fire (the pre-plotted locations being considered 'registered'). Even in a hasty defence, defending units probably tended to have at least a few firing points to cover the more obvious lines of attack and could call in fire request via wired phone (a much more reliable communications method than the radios of the day).

BRITISH PRACTICES

The British had a very different system. They gave their people (artillery and FOs) good maps with grids marked on them. The artillery would plot its own grid co-ordinates when it set up. To request a fire mission, the FOs would call in the grid coordinates of the target to the artillery. Then to calculate firing distance and angle, the artillery simply assumed that the Earth is a perfectly flat, infinite plane (take it from me, it ain't!) and did two simple calculations for distance and angle calculations.

The British could then fire spotting rounds and correct just like the Germans, but this would have required sticky arithmetic calculations, even if only linear interpolations. Also there's the time delay to work all those formulas out. So instead, the British just accepted the errors and tended to fire every available battery at the target. Since each battery's fire would tend to be somewhat in error relative to the other batteries, this had the useful effect of blanketing a large area around the target, as well as the target itself (and probably any Tommy close enough to observe the target.).

The British were ignoring a whole host of errors that the Germans carefully accounted for (elevation changes, wind, temperature, etc.), but by using many batteries they could get a large enough area covered so that they would have a reasonable effect on the target. Also, they got their impromptu fires really quickly: something like two minutes from the time of the first call until those shells are bursting everywhere.

There are a few major drawbacks to the above system. While fast it is not accurate, wastes a lot of ammo, and ties up a lot of divisional artillery assets. Also, it requires accurate maps with many terrain features accurately located on the map (i.e., cross roads, stream beds, town boundaries, etc.). The British tended to assign fairly senior NCOs and experienced personnel in the FO role so that they wound up mitigating the problem somewhat of wasting ammo (i.e., the more experienced FOs had good judgement as to what was and wasn't a worthwhile target). Also, it seems that only FOs called in missions (at least that is my impression).

I presume (but have no specific references) that the British could have and did use the German system of setting up registered fire when they had occasion to in more static situations. Also I should mention my reservation that I have a hard time believing the allegation that the British habitually fired an entire division's worth of guns (more or less) for each fire mission.

On a slightly different topic, the following occurs to me as an explanation as to why the British may have suffered high tank losses over and over to German AT guns in North Africa (especially during Rommel's heyday). It could well be that the above British artillery practices prevented effective fire against the dug-in AT guns. Without good maps (it was North Africa after all), accurate fire may have been very difficult to obtain in a fluid situation. The ultimate result being that the British felt the only way they had of dealing with the guns was by using their tanks. If true, this is another example of failure of combined arms tactics on the part of one side and successful employment of it on the other side. Just wildly speculating here - flame the idea, not me. <grin>

AMERICAN PRACTICES

The Americans used the British system, but with a very significant innovation. They pre-computed the firing data for a huge number of variations of wind/temperature, barrel wear, elevation differentials, etc. Then for each possible variation, they created a separate calibrated tape measure. Along the tape was printed the gun laying information instead of distance marks. When a fire mission came in, the plotting officer would simply go to a filing cabinet containing the hundreds (thousands?) of these tapes and pull out the correct one for the current meteorological and situational factors. Then the tape would be laid out between the two grid points on the map (the battery's and the target's) and the firing data would be read from the printing on the tape. Apparently there were some other fudges that got thrown in to make the firing even more accurate.

The net result was that there was about three minutes elapsed time from the initial fire support call until shells were making the enemy duck. And the firing was almost as accurate as the spotted German fires. Ergo, very responsive explosions exactly where they are wanted.

Again, a drawback to the American system is that it requires very accurate and detailed maps (say showing individual farm buildings for instance) which must be plen-

tifully supplied to troops at all levels. However, given the availability of such maps American artillery could be hellacious.

I might guess that temporary lack of such maps may be a reason why certain obvious movements were tardy during the pursuit across France. How would you feel about moving into an area where your artillery could not fire (because the forward troops as well as the artillery had no maps with appropriate grid marks)?

The tape measure system was not the only innovation of the Americans, as there were several others that followed directly from the simplicity of the tape usage.

Since the grid system was so easy to use for calling in fires, it was standard doctrine to train all officers in it (and many enlisted men as well?). In fact the technique was so easy that an otherwise ignorant enlisted man could be readily walked through the procedure over radio (and was on more than one occasion) when all his officers had fallen.

Another trick of the Americans was the Time on Target mission (TOT). With this one, every battery in range was told the grid co-ordinates of the target and time when all shells were to initially land at the target. Each battery did its normal firing computation and then calculated the time to 'pull the lanyard' by backing off the time-of-flight from the target time. TOT was particularly nasty because the initial shell from every gun landed virtually simultaneously before any defender could take cover. It took too much effort for the Germans to care much for such a technique, and the British were not accurate enough to make the technique particularly useful. Very nasty and only Americans could pull it off (it has been claimed it required as little as 10 or 20 minutes preparation).

Another innovation of the Americans was their ability to obtain accurate fires extremely quickly from a large number of firing batteries. Because of the simplicity and elegance of the tape system, almost any battery in range could fire on any target in any direction. All they had to do was get a request from another firing HQ or even just listen in on other battalion radio nets ("Hey, Red Bravo Two, we have a situation at grid co-ordinates such and so.").

This system was formalised by having a fire mission request being kicked 'upstairs' if warranted for a suitably attractive target. The firing artillery battalion might contact the division which then might also request support from corps. Ostensibly, the inclusion of the division support added an additional three minutes to the fire mission, and including corps assets added three minutes yet again. There apparently was one case in Italy of a Piper Cub pilot (an artillery spotter) calling in no less than five corps level missions in one hour (this extremity of fire concentration was of course extremely uncommon, but certainly not unheard of).

Such relatively spontaneous massing of fires was absolutely not true of the German system which required a careful preplotting by surveyors to figure out where things really were on the map. In some sense, all American batteries wind up in general support (can fire for anybody). Consequently a given fire request may pick up extra 'idle' batteries to thicken the fires. And during emergencies, any battery in range could leap into the fray to save a Yank ground pounder's tail.

Beyond the above 'standard' organisational doctrine, apparently Americans were quite capable of concentrating fire support on as large a scale as needed. I'll offer an example from the German counterattack at Mortain in August of 1944 (from "Saving the Breakout", Alwyn Fetherstone, 1993). Three American infantry companies were trapped by the Germans on top of a hill overlooking the valley that Mortain lies within (this was a bottle neck that a major part of the German attack had to pass through, if it was going to cut off Patton's breakout). The American infantry held out for something like two days against the better part of a panzer/panzer grenadier division that desperately wanted the lousy Yanks off of the hill. The only problem seems to have been that some twelve and a half battalions of Uncle Sam's artillery could be called on in an instant by the infantry, anywhere on the highly visible countryside for miles around. This not only prevented all daylight movement by the German attack, but completely thwarted any attack on the infantry itself, even at night. To imagine the effect of being a German attacking up that hill, think of being on a football field with some fifty to one hundred 20-odd pound TNT explosions going off around you every second (some two hundred guns each firing every 3 to say 8 seconds). Another way to think of it is to say that, in some sense, you might expect to have a shell land within touching distance of you every 15 seconds or so. Yep, I don't think the US needs to bow to anybody when it comes to an ability to deliver impromptu concentrated fires.

As a side note, no artillery gun anywhere (in the US Army at any rate) ever fired more than about 800 rounds in any day ("Search for Historical Records of High Rate Artillery Fire in Combat Situations", Trevor Dupuy, 1978). This was the extreme high, and a more typical high for any given battery is likely to be on the order of several rounds per gun per day. Apparently logistical limits more than anything tended to prevent firing a larger number of missions.

No doubt more than one German officer assumed he'd have at least the first 15 - 20 minutes of his surprise attack free of defensive artillery fire. And when the artillery did start to come in, he'd expect to be warned by the initial spotting rounds. Instead he found he was under immediate fire placed directly on his men while many were still crossing the start line. I'm sure it appeared to more than one German that the Americans must have known when and where such attacks were coming. No wonder some Germans were impressed with American artillery.

SOVIET PRACTICES

I am not sure my information may be as reliable regarding Soviet practices as it is with the Germans, British or Americans. Also, I would not be surprised if, as in so much else, that much of the Soviet practice significantly changed during the course of the war.

Having said that, let me venture the following as my understanding. Apparently the Soviets had very limited ability to call in impromptu fires. As the guy giving the Origins lecture said (more or less), "If Ivan knew how to do those calculations (that any German high school graduate was capable of), then they did not waste him firing artillery, but put him to work designing aircraft." Possibly apocryphal, but somehow telling.

Therefore I'd postulate that in prepared, and certainly observed fires, the Soviet artillery should be able to be reasonably effective (i.e., accurate and timely). However, once the situation turns fluid, and the front starts to displace, Soviet artillery fire probably becomes almost useless except where the artillery itself can see the target and correct its own fires. In essence, this mirrors the World War I experience of well-planned initial fires, and slackening effect as troops move forward (especially in fluid situations). Regardless, the general take is that by late '43 Ivan is rolling in barrels of batteries, and is indeed evilly equipped in '44 and '45.

Again, the above is just my best guess, and the Soviets may have been able to adopt some other system as the war progressed, especially for mobile operations.

HOW THIS AFFECTS WARGAMES

You can see from the above, that in a tactical-level wargame one would expect each nation's artillery to be governed by rather varied rules. The Germans get accurate artillery, but it's somewhat slow to come. The British get the fire very promptly. Their fire is less likely to seriously damage the intended target, but the effect of the barrage is going to be spread over a much wider area than a similar German or American fire mission. Furthermore for the most part, for the British and Germans, only specially trained Forward Observers can call in artillery fires.

The Americans of course get it all: fast, deadly accurate (i.e., little or no drift), they get extra when they care (and even if they don't care), and they get the additional potent weapon of Time on Target. I should also mention that the Americans introduced proximity fuses during the Bulge, so that they then start getting the benefit of the far more deadly airburst fires (deadly to infantry and especially to open-topped vehicles).

Note that when in any kind of prepared defensive position, I would expect the British and German artillery to start responding as quickly and accurately as American. However, I suspect that the British and Germans may still have been limited to only FOs calling the artillery, even when in defensive positions.

The Russians, depending upon the period of the war, probably get a ton of not tremendously accurate, but decent artillery (again the amount and quality of fires will vary enormously during the course of the war). In a mobile situation they are probably largely limited to line of sight firing (maybe this is one of the reasons why they liked relatively big mortars so much?).

Another effect I might expect is differences in relative set-up times for deploying artillery into new positions. British and American artillery should be fairly quick to get set-up, being only really limited by having to set-up the equipment, connect up their communications links, and lay in ammo. The Germans should require more time (unless all survey prep was done prior to the move) because the new position has to be surveyed, and the survey results have to be tied into previous results. Also the German artillery seems to have been rather more dependent upon wire communications than were the Western Allies, and so may be further delayed because of this. I cannot speak at this point to what the likely limits are which affect Soviet set-up.

Now that I think of it, the utility of German and Soviet artillery 'divisions' probably existed in the ready ability of such a division's firing elements to share survey results and co-ordination within itself. Contrawise, the difficulty of tying survey results together across artillery organisations strikes me as an additional complication that enormously hinders quick massing of German and Soviet artillery battalions, such as occurred with the Americans at Mortain. It's not that the Germans and Russians could not as effectively mass their artillery fire, but that it would take a lot longer because essentially everybody's map would have to be calibrated against each other. Again, I'm just speculating here.

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OAF PACK 1

Thomas Huntington

OAF Pack 1 is Critical Hit's reprint of ten scenarios from the oldest *ASL* amateur magazine *On All Fronts*, which makes one of my personal favourite acronyms for this game. In addition, the package has some new secret toy surprises to round up our interest.

The pack comes with ten scenarios, printed two-sided in black-and-white on card stock. It also includes a full colour half-sheet of matte paper stock, dominated by one large overlay and sporting seven unmounted counters (four NKPA troops and three 12-5 1950 bazookas). There's also seven blank counters for the new guys, and a black-and-white sheet with the backs of the seven counters and a quick introduction to CH's new format for scenarios cards.

I'll just quote CH for a description of the changes:

"TO&E Tree: Depicts the units and sub-units involved in a scenario, with counters needed for play under military symbols. Provides at a glance the overall composition of the force involved. Reinforcements are not attached to a 'branch' of the main tree.

New board and entry information includes boxes with dotted lines to delineate the set-up area for each nationality (as denoted by appropriate symbol) and entry of reinforcements. The number in the arrows off-board indicate the turn of reinforcements, the location of the arrow indicates the general location for entry. Other data, such as shading of areas in play on the boards and overlays, remains unchanged."

The TO&E Tree is interesting, showing the historical source of units by drawing NATO symbols for units above the corresponding counters. I worry that the new demands on space might push some scenario cards to be more crowded than we've seen in the past, but the presentation of these scenarios is clean. One of the assumptions the scenarios make is that leaders belong to HQ units. I can see that officers (the 9's, 10's, and the 6+1's) would rank this distinction, but I've always imagined the 7-0's and 8's to be just grunts who have their act together during the battle.

The new information about the boards is good. I've never thought there was anything missing on the Mapboard Configurations before, but CH now has insightfully added dotted lines and nationality symbols on top of the maps to mark set-up areas. Numbered arrows and more nationality symbols show entry areas and entry turns. For

the first time, I can look at the empty mapboard configuration section, and gain a feel for how the scenario plays without wading through the SSRs. Now if only we could have meaningful artwork to give us a rough idea of what dominant terrain features are on each map!

The scenarios themselves are a series of meat-and-potatoes scenarios, with the barometer pointing more favourably at late-war fighting. Most of the scenarios have a good mix of armour and infantry, and generally run from medium to large sized actions. One scenario, 'Attack at Martinville Ridge', uses *DASL* boards, while 'The Tiger's Roar', uses not only the colour overlay that comes with the package, but also calls for the optional use of one of the original *SL* overlays! An SSR gives you alternative rules to make up for those that don't have the original overlay. But the package scores ever higher on an efficient recycling of *ASL* components scale.

This is a nice package, with enough colour and flash peeking out of the plastic envelope to intrigue you into buying it. I think it's a reasonable deal for the price.

It is available for £8.00 (plus 10% postage) from The Crusaders, 4 Monkton Down Road, Blandford Camp, Blandford Forum, Dorset, DT11 8AE (please make cheques payable to INTENSIVE FIRE). It may also be ordered direct from Critical Hit, 88 Lodar Lane, Brewster, NY 10509 for $12.00 including postage.

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A TALE OF TWO TARGET TYPES

Continued from page 6

ter (in practice, things are not quite that simple, due to the possibility of a CH or the necessity of an Improbable Hit, but these figures will suffice).

Even a cursory glance at the table shows that the Infantry Target Type is more likely to inflict a result. This is due mainly to the fact that the TEM is applied to the reduced FP of an Area Target Type attack, drastically reducing the chance of getting a NMC or better In most cases, this is not matched by an equivalent rise in the chance of a hit.

CONCEALED TARGETS

However, even if the Area Target Type may not be the best shot according to the numbers, there are other considerations which can make it more attractive.

In particular, a shot on the Infantry Target Type cannot acquire concealed units, but you can acquire the hex they are in by using the Area Target Type, and this is one of the most common reasons for using the Area Target Type. Area Target Type acquisition can be converted to an Infantry Target Type acquisition, so if concealment is stripped, the Gun will already be zeroed in, so hitting on the Infantry Target Type will be even easier.

HITTING EVERYTHING

Another fairly common reason for selecting the Area Target Type is that if the shot hits, it affects all Locations in the hex that the firer has LOS to, not just the target's Location. So if you want to drop a 150mm shell on a multi-story building hex and have it affect everyone, use the Area Target Type. On the other hand, if you want to blast A into oblivion and don't care about B, then use the Infantry Target Type. Who knows, you might even affect B anyway, if you're lucky and rubble A's location, bringing the house down, so to speak, on B!

With the Area Target Type, you also gain Acquisition against the entire hex, not just the target's Location.

As an aside, note that you can fire SMOKE at the top level of a building for which you have no LOS to the ground level. SMOKE is always placed at the ground level.

AGAINST AFVS

The Area Target Type is sometimes worth considering if you face an AFV that you cannot otherwise harm, such as using a 75mm-armed Sherman against a King Tiger's front - in this situation, even a CH is too weak to penetrate!

In this case, a hit on the Area Target Type is resolved on the FP6 column with a +1 DRM for all AF ≥8 (C1.55), so the King Tiger is automatically Shocked/Immobilised if you roll a 2 or 3, although you still cannot destroy it.

On the other hand, if you score a CH the FP is not halved, but doubled to 24. Now the same DR destroys the mighty Tiger!

Admittedly the chance of success is low in both cases, but the 8.3% chance of success it offers is better than the no chance at all that a Vehicle Target Type shot offers!

LONG RANGE FIRING

Long range engagements are not so noticeable in ETO/PTO scenarios, but are often vital to victory in the desert.

When firing at long range the TH# for the Infantry Target Type drops much quicker than for the Area Target Type; in fact the Area Target Type TH# actually increases at ranges of 13-24 hexes!

As a result, the Area Target Type tends to be the better choice for long range fire. This is borne out by the figures in table 2, in which the attacks from table 1 are made at a range of 13-18 hexes.

In fact, the only time the Infantry Target Type tends to be better is if the non-TEM DRM is low enough to compensate for the lower basic TH#.

As with so many situations in *ASL*, hard and fast rules are difficult to quantify, as the number of variables is often quite large. For example, Area Target Type consumes all ROF, so a Gun with a good ROF may be better off firing Infantry Target Type even when a single shot on the Area Target Type has an advantage.

I'll leave you with one final thought: it can be easier to get a CH with the Area Target Type!

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NON TEM DRM		TEM +1		TEM +2		TEM +3	
37mm	**-2**	35%	14%	30%	7%	24%	2%
	0	24%	10%	17%	5%	12%	2%
	2	17%	5%	7%	2%	4%	1%
50mm	**-2**	49%	14%	42%	7%	34%	2%
	0	34%	10%	24%	5%	16%	2%
	2	16%	5%	10%	2%	5%	1%
75mm	**-2**	69%	35%	60%	23%	49%	14%
	0	49%	24%	35%	16%	23%	10%
	2	23%	12%	14%	8%	7%	5%
150mmm	**-2**	83%	60%	72%	49%	58%	35%
	0	58%	42%	42%	34%	28%	24%
	2	28%	20%	17%	16%	8%	12%

TABLE 1: The chance of getting a NMC or better at ranges of 3-6 hexes for various Gun calibres.

NON TEM DRM		TEM +1		TEM +2		TEM +3	
37mm	**-2**	25%	15%	17%	8%	12%	3%
	0	12%	12%	7%	6%	3%	2%
	2	3%	7%	1%	4%	0%	2%
50mm	**-2**	35%	15%	25%	8%	16%	3%
	0	16%	12%	10%	6%	5%	2%
	2	5%	7%	2%	4%	0%	2%
75mm	**-2**	49%	38%	35%	29%	23%	15%
	0	23%	30%	14%	20%	7%	12%
	2	7%	17%	2%	12%	0%	7%
150mmm	**-2**	59%	66%	42%	54%	28%	38%
	0	28%	52%	17%	43%	9%	30%
	2	8%	30%	3%	25%	0%	17%

TABLE 2: The chance of getting a NMC or better at ranges of 13-18 hexes for various Gun calibres.

DURING THE SECOND WORLD WAR, THE GERMANS USED A BEWILDERING VARIETY OF VEHICLES. EXPAND YOUR AVAILABLE ORDER OF BATTLE...

Kinetic Energy Productions presents:

KVAM, NORWAY, 25 APRIL 1940: In the first days of Operation Weseruebung (the German invasion of Norway), the Germans enjoyed considerable success. Striking up the central valley towards the beachheads at Trondheim and Narvik, the German forces - using tanks to excellent effect in spite of the seemingly tank-hostile terrain - brushed aside the main Norwegian and British units deployed to conduct a delaying action. Now a fresh British force arrives to slow the German advance by force of will alone - and the help of several anti-tank guns...

KHOLOVDEVCHIYA, RUSSIA, 14 AUGUST 1943: On the southern rim of the Kursk salient, the Russians launched a massive hammer blow on the German units maintaining that line in early August of 1943. The elite Grossdeutschland Division is immediately brought forward and launches a series of counterattacks on the Russian breakthrough. On this day, their assignment is the elimination of the threat created by a Russian bridgehead. The Grossdeutschland Division calls upon its attached assault/demolition company - Panzer Kompanie (Funklenk) 311 - to handle the job using its radio-controlled B IV demolition vehicles...

BOSANKI PETROVAC, YUGOSLAVIA , 7 FEBRUARY 1943: In their first action as a combat division, the troops of the SS-Freiwilligen Division 7 (Prinz Eugen) mount a sweep of a sparsely-populated area deep in the heart of Tito territory in Yugoslavia. Battling the bitter cold as well as the partisans, the green Prinz Eugen troops have a frustrating time attempting to tie down the enemy in a truly decisive battle. On this day, however, the partisans have been caught preparing to evacuate a village, and the SS troops are able to deploy a flame-throwing tank...

PRAGUE, CZECHOSLOVAKIA, 8 MAY 1945: On the day the war ends in Europe, the fighting in the city of Prague is just approaching a crescendo. German units - still in control of the city - are battling the local Czech partisans who started the Prague Uprising several days previously. The partisans, desperate for help in any form, invite the Russian Liberation Army to fight the Germans for them, in return for asylum once the war ends. Unfortunately for the Russians under General Vlasov, the communist partisans have no intention of allowing Russian traitors asylum, and brutal three-way fighting erupts throughout the city.

This is the third issue of the *Advanced Squad Leader* newsletter *Time On Target*, which conducts a study on a group of oft-forgotten German vehicles from the Second World War - vehicles that have been left out of the standard *ASL* countermix - until now! Experience scenarios using vehicles previously unavailable - or that have been depicted by some half-baked method that is historically inaccurate or an eyesore. No Longer! Add these vehicles to your Order of Battle and expand your playing horizons now!

Issue #3 of *Time On Target* comes with a sheet of 64 full-color mounted and die-cut counters depicting over a dozen new vehicle types, as well as complete historical notes and rules for each vehicle. Also included are thirteen scenarios, each printed in two color on high-quality card stock, depicting historically accurate actions highlighting these and other rarely-used vehicles. The newsletter contains articles on the scenarios, an interview with noted German armor author Tom Jentz, a bibliography, and other *ASL*-related items.

All items in *Time On Target* #3 are fully compatible with Avalon Hill's *Advanced Squad Leader* Game System.

This is not a complete game. Ownership of the *Advanced Squad Leader* Rule Book (including Chapters A-H, J, O, and P), *Beyond Valor*, *Yanks*, *West of Alamein*, *Partisan*, *Code of Bushido*, *Croix de Guerre*, *Red Barricades*, *Kampfgruppe Peiper I and II*, and *Time On Target* Issue #2 (as well as boards 5, 7, 11, 16, 17, 18, 21, 22, 26, 27, 28, 31, 33, 36, 37, 40, 41, and 42) is required to play the scenarios included in *Time On Target* Issue #3.

Time On Target #3 is available from Kinetic Energy Productions at a cost of $22.00 (plus $3.00 Shipping and Handling for every two copies ordered [FRU]), and may be ordered by sending a check or money order in U.S. funds to Kinetic Energy Productions, P.O. Box 291580, Hollywood, CA 90029. It is also available from The Crusaders at a cost of £17.60 (plus 10% postage), and may be ordered by sending a check or money order in U.K. funds (made payable to INTENSIVE FIRE) to The Crusaders, 4 Monkton Down Road, Blandford Camp, Blandford Forum, Dorset, DT11 8AE.