

RUCKUS – Rapid Urban Combat Kriegsspiel Umpiring System v0.9.260805

Designers Notes

Note: One of the useful things about the brevity of RUCKUS is that in these Designer's Notes I can include at least a paragraph on each of the main rule sections in RUCKUS, even if I can't get to the level of discussing every parameter choice – that will have to wait until I can get to a fully annotated rules set! I will try and add references though.

RUCKUS has been on my to do list ever since my supervisor suggested in the first year of my PhD that I ran an urban matrix game. At that point I just didn't think I'd learnt or internalised enough information to do it. Most of my subsequent games have all been on the heavy side, but my approach was to get to the detail and then have enough knowledge to develop simpler systems that just focussed on key elements. When the opportunity came in early 2026 to run a seminar wargame for NATO I had the impetus I needed to put RUCKUS together. It was not the intention to use RUCKUS at the event, but it gave me a way of testing the scenario, and actually using it in a shadow manner during the event. In fact, the idea for RUCKUS may even reach back to the 18 months I spent supporting the Land Warfare Centre's Ex Urban Lion seminar wargames thinking about whether it was possible to create a set of urban COA wargaming rules – something I now recognise as being a somewhat misguided aspiration!

The primary intention with RUCKUS is to provide a set of rules which can help an umpire run a Kriegsspiel or seminar type wargame, where the system can quickly allow the umpire to adjudicate the most common situations so that players a) get a consistent (and hopefully believable) response to their actions, and b) get a transparency as to the decisions, which can lead to further discussion about the nature of urban combat between the players and the umpires. As a "system" I see the details of the rules as being secondary to the structure they create - if anything doesn't match your model of urban combat then change it. The whole aim is that at the end of a 1-2 hour session

players should have been able to play through a brigade or battalion level urban combat and have been exposed to a wide variety of the different elements, issues, challenges and solutions to urban combat. RUCKUS is certainly not a training game, but it is an educational game, and hopefully has some merit as a game to support more analytical activities. And although the initial intent was that it should be an umpire guide, practical playtesting of the game with others has shown that it is more than capable of supporting a more traditional player vs player wargame – with or without an umpire.

As mentioned the aim with RUCKUS is to only model the critical parts of urban warfare, but also to make sure that key elements are represented at least in some form so as to get discussion going. Breadth of experience is probably as important as any "realism" in RUCKUS. It is face validity I am after, a game that feels right and provides a good and realistic narrative to the chosen urban battle. It is also about speed, I want to be able to play a bde or bn level engagement in 60-90 minutes and with 1 page of rules (or at least a 1 page QRS). I've got City & CEMA if I want something more complex. This means that a lot of stuff is deliberately left out, and it's up to the umpire to fill the gaps!

Ground/Element Scale

This table consolidates several doctrinal sources which define how much ground a unit in urban defence should occupy (although note that the US originals were in terms of "blocks" not metres).

Unit	Frontage (Defence unless otherwise specified)
Division	4-6km (Soviet assault– source)
Brigade	2-3km (Soviet assault– source)
Battalion	4-8 blocks (2-4 deep) 4-8 blocks (3-6 deep) 400m – 600m (Soviet assault – source)
Company	3-6 blocks (2-3 deep) 3-4 blocks (2-3 deep) 2-4 blocks (2-3 deep) 200-300m (Soviet assault– source) 200m – 600m (200-400m deep) (Soviet – source)
Platoon	1-2 blocks (1 deep)

Note: A block is stated as the equivalent of about 175m (ATP 3-06,2022)

I have used it as a guide to ensure that the ground scale is suitable for manoeuvre units that I am representing. So for a battalion in defence (being attacked by a Brigade) the battalion should have a frontage of 700m – 1400m, which with 300m RUCKUS tiles gives 2 – 5 tiles, and a company should have a frontage of 350m – 700m, so 1-2 tiles, and a platoon 175 – 350m – so 1 tile. These seem about right with RUCKUS, although my guess is that in somewhere like Estonia NATO forces would be spread far more thinly, and this becomes evident when you start to divide even a small town like Johvi up into areas to be played with RUCKUS. If marking a map up for RUCKUS I suggest keeping areas to around 300m to reflect the above. Most commercial games keep to around 30 – 40 areas, but you'll soon exceed this with real world towns, let alone small cities – showing just what a challenge the urban is likely to be.

Lead and Support Units

A key design decision was the concept of Lead and Support units. Only Lead units, represented by infantry units and combined-arms (infantry plus armour) combat teams may lead in combat assaults, with Support units (pure armour, anti-tank etc) contributing to the assault but not leading it (called Enablers in some rules). Such units also must make mandatory retreats if pressed by a Core unit without their own Core unit. This seems a reasonable design decision in urban combat where the need for combined operations is heavily stressed in the literature, and the learnings of the importance of combined arms (and allowing players to make the mistakes) is better done in a more tactical game. Tank units are highly vulnerable in urban to anti-tank ambushes – so again the mandatory withdrawal seems a sensible decision.

Damage Model

The Damage Model is based around the fact that most armies nowadays tend to work on the rule of 3s – 3 sections to the platoon, 3 platoons to the company, 3 rifle companies to the battalion etc. So each “step loss” is 33% - reflecting the loss in

combat effectiveness of one sub-unit. Once a unit gets to 66% loss (2 steps) it is considered Spent and can only participate in defensive operations (UK doctrine suggests that a unit ceases to be combat effective at ~50% loss).

Command and Control

To keep the game simple any C2 issues have been ignored and all units are automatically activated as required. To give some awareness of C2 and communications issues there are some random events which reflect these problems and limit a sides movement in any given turn.

ISR

For simplicity the game can be played in an “open” mode, where each side can see the other's forces. I'm not 100% convinced by the notion of the transparent battlefield, particularly in urban, even in the age of zones, but adding a closed mode brings immediate complexity and needs additional time. But if you do want to play with hidden units (blocks or face down counters) then I have included some simple rules to enable it. I have also allowed weather to be a potential determinant in your choice, with clear skies allowing uninterrupted satellite, airborne and drone surveillance – and so open play, and cloud cover restricting satellites, airborne and higher altitude drones, and so suggesting closed play. The chance are by the end of the first few turns most units will have been detected, and once detected they stay detected, so perhaps the overhead isn't too much.

CUAS

Of course if we've got drones we need to have Counter UAS capability. All the video from the Ukraine suggests that shooting down a drone with small arms is a tough ask, so its 6+ here (and would probably be 12+ if I was using 2D6, but for simplicity I wanted to keep everything to one D6). Specialist CUAS units (which at this level probably means handheld jammer guns) gives an increased probability of a “hit”, but also needs to be restricted

in range given the cluttered urban environment, and the urban canyons a drone can hide in.

Deciding whether a drone is “in range” of CUAS is probably a significant umpire role!

Movement

In a game covering typically only something like a few kilometres square and turns of an hour or more then movement rates in terms of km/hr mean very little. If you’re in potentially hostile territory you’re likely to be moving in tactical bounds and/or at patrol speed anyway, so movement rates have been set more in these terms. Conversely the aim of the game is for units to get to grips with each other, not to spend half the game edging close to each other, so, like many other aspects of the rules, the movement rates have been chosen to let units move more relatively easily around the board – and more easily if in vehicles, and even more so in the open fields, but without suddenly appearing deep in the enemies flank or rear. The presence of enemy units and obstacles is more typically going to be the limit to movement.

Anti-Tank Fire

Whilst engagement ranges are typically short in the urban environment, I wanted RUCKUS to be able to model the break-in battle, and so have the ability for AT weapons sited on the perimeter of the urban area (or overlooking an urban park) to make life difficult for any attacker. Once into the urban AT is more likely to be at shorter ranges as part of area to area assaults. As a result, the AT table has been kept relatively simple since RUCKUS is not focussed on rural, longer range combat, to help umpire that initial break-in. The table also allows the simple representation of counter-fire taken by AT teams. I initially also had a row to work out the percent of passengers lost when APCs/IFVs were hit, but this tended to complicate things so I’ve assumed that in situations where they come under AT fire troops are more likely to be embussed, and so the casualty loss applies to the whole element. I didn’t want to complicate RUCKUS with Embussed/Debussed markers.

Combat/Assaults

My assumption in RUCKUS is that beyond the AT fire described above there will be very little stand-off/ranged fire at a tactical level given the short sight lines. As a result the only other form of engagement is the assault – and that would include any “shooting in” from supporting units.

I wanted to keep combat simple, but there are a lot of factors that come into play, and surely tactical success is about how many you get in your favour, and how many you get against your enemy? I’d initially done an old Kriegsspiel style list of advantages and disadvantages, without the +/- numbers, so that the umpire could just pass their eye over the list and make a judgement, but in playtesting I found that slower than having the numbers! The +2/-2 (and a few others) are shown first and in bold so if you want you can just apply those. Feel free to give players extra DMs for any well argued additional factors. Since the game is being umpired it makes sense to just have the one roll and calculation, rather than an opposed roll. The downside of this is whether one linear CRT then gives enough variety. I don’t think it’s perfect as-is, but it’s usable. It also inherently assumes that any urban fight is likely to be bloody, so any company going into an attack, even if successful, stands a good chance of being spent by the end of it. Notes are provided on how to convert to a roll for each side if a) you want players to roll the dice and/or b) you want a bit more variety to the results.

The CRT is scaled on the basis that a 1:1 fight in open terrain will give a 1-6 range, with results ranging from 33% attacker loss to 33% defender loss – and some chance of mutual loss. Putting the defender into PV2 urban gives a -2, which the attacker needs to offset with a 3:1 ratio to get a net +2 (which gives outcomes ranging from 33% attacker loss to 66% defender loss). But the attacker then needs advantages beyond that in order to gain a chance of really favourable odds. Whilst this situates RUCKUS in the “you need better than 3:1 in urban” camp, this is looking at micro-battles (as Rowland would refer to them), and the overall ratio needed to be successful may well work out at 3:1 or less. This is of course the advantage of a relatively simple system like RUCKUS, if you think

it is being pessimistic then just shift the lookup line to the right a few columns, or adjust the DMs. I have no doubt that as I (and others) play RUCKUS more I will further refine the CRT, and this may be an area where the mass simulation of micro-engagements could help to provide a firmer base for the choice of values.

FIRES (aka Artillery)

I wanted to treat FIRES quite simply, and ensure that they did not dominate the game. My sense is that (for the UK at least) most FIRES will be allocated to Deep Recce Strike type tasks - Artillery Groups, HQs, Logistics Hubs, not to supporting troops on the ground, so it's only organic fires that will probably be available, 81mm mortars for the UK and 122mm SPGs for the Russians. In order to save people having to use DMs for different PVs and weapons I decided on the single table approach, just look up your weapon, roll the dice, and take the relevant dice column down to the relevant PV row.

The more I thought about how to represent Bomber drones and FPVs the more I decided that a similar abstract treatment was the right way to go for RUCKUS. Remember that just as one FIRES counter represents a fire mission of tens of rounds, so too at this scale an offensive UAV counter will represent a dozen or even dozens of drones being flown in a concerted attack over a couple of hours. My feeling is that the actual losses during a relatively short attack will be low from drones, but they are likely to have a very suppressive effect, getting everyone to keep their heads down.

Mines

It is likely that before an attacker can get to grips with the main body of the defender they will have to fight a break-in battle and secure a lodgement on the edge of the urban area. If the defender has had time to prepare it's a good bet that they'll have laid minefields on the more obvious approaches to the urban area, and have them covered by fire. Whilst the AT rules can deal with the cover by fire they can't manage the damage incurred by an assault crossing of the minefield (as we've seen in the

Ukraine), and certainly not an unopposed clearing. Remember what we are talking about here is Giant Viper/Mamba style explosive clearance where a long explosive hose is fired into the mines which then explodes and clears a vehicle wide lane. Engineers would probably aim to put 2 or 3 lanes in, and even with the lanes done there is still the chance that mines have been missed or vehicles just stray from the lane onto an adjacent mine. That is what this table tries to capture in a way that will allow minefields to be dealt with quickly, and be something that might delay, and might cause some casualties, but ultimately doesn't stop the two sides getting to grips with each other. Rules aren't provided for mine laying, Ranger/Volcano scatter systems or MLRS aerial delivered mines are probably the only modes feasible, but the umpire is free to improvise if a player wants to use them - ditto any unique effects of surface laid mines within the urban.

Time

When I first started on RUCKUS I assumed that each turn represented 1-2 hours. However a I playtested it I thought about the variable time system I have in TUC where a card is drawn at the end of each turn to say how long the turn actually lasted. It struck me that such a system would also work well at this grand tactical level where all the vagaries of the urban environment are going to make it very hard to say that unit X to achieve objective Y in Z hours. So now I recommend rolling a D3 at the end of each turn to say how many hours the turn represented – but also adding a D3 for each assault, and another D3 if there was any drone assault, so that whilst a quiet turn may represent 1-3 hours a busy turn could easily represent 4-12 hours. This really changes the dynamic if a force has been told to hold the urban area for 24-48 hours! By all means use a more fixed 1-2 turns if you prefer, but players seem to appreciate the uncertainty.

Civil Events

I did think about using the same CEC approach as I used in OPUC to bring in some of the other urban challenges, but since RUCKUS won't necessarily be used in a traditional turn based setting it was easiest to resolve things as they arose. I tried to avoid an extra dice roll to see if there is an event – and so added the [E] indicator to certain rolls. I can't say that I'm a great fan of using 1s and 6s to do extra things - things happen on ordinary results too - but it's simple.

Then a simple D6 roll indicates what the event is. I've tried to pick what I think are the most common events, or at least the main ones people should think about, but I can see umpires customising this table more than most based on their own scenarios and aims. Some of the results don't have an explicit game impact, such as cultural property, but are an opportunity for the umpire to talk through issues. As with most of my other games I eventually added an Adverse Opinion track so that players can see how "bad" their operation is, and the scenario may specify a very asymmetric attitude to its value! However, in the RUCKUS context these effects should still be discussed as they happen and then contribute to a summative discussion at the end, rather than being reduced to simply a number.

Injects

This is very much optional, and something again that I'd expect umpires to customise, but hopefully it can provide some extra colour and discussion points if required. I've tried to structure it so that 11-36 have in game impacts, and 41-66 have out of game impacts so the umpire can just roll on the first table if they want. Feel free to ignore, change frequency, manually pick injects and add your own as you wish.

USECT

One major thing that RUCKUS has lost compared to City & CEMA is the whole USECT model approach. A RUCKUS game is the Engage phase, but it doesn't cover Understand, Shape, Consolidate or

Transition. My intention is to develop an USECT "wrapper" which can be applied to RUCKUS (and potentially other games) to bring these considerations in through pre and post game activities. This will help ensure that the whole wargame experience encompasses many of the wider issues that will affect, or be affected by, the civilian population and infrastructure.

Systems Model

A simplified systems model showing how the most important (and unique) elements of RUCKUS interact is shown at the end of this document.

More Information

For more information on RUCKUS, and a copy of the game as either a Tabletop Simulator mod, print'n'play or even Playable Powerpoint, please go to <http://www.taunoyen.com/games/rucklus>.

If you have any questions about RUCKUS, or about my research on wargaming urban conflict then please email me at david@burden.name.

Simplified System Model

Just showing the elements more unique to RUCKUS.

