Gemigabok Presents:

Winter of No Surrender

A SERIES OF WINTER WAR - CHAIN OF COMMAND CAMPAIGNS

Optional Rules (v2.41)

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Chain of Command is a rule set with good WWII feel. The game might nevertheless benefit from some rule changes so that we can provide a true Winter War experience.

All these rule changes must be considered optional, experimental and a work in progress. If you don't like them, change them or ignore them.

R1. FULL HISTORICAL TOE AND EQUIPMENT

This campaign uses full historical tables of organization and equipment for all units. This serves a dual purpose - Chain of Command players may enjoy a fuller simulation and players of other game systems may make full use of this scenario pack.

Where historical TOE has been impossible to determine I have substituted likely organizations based on earlier or later known organizations and I have attempted to indicate the source of each TOE.

R1.1. INFANTRY PLATOON TOEs

Chain of Command seems to adhere to historical platoon organizations fairly closely. However often the game ignores runners, senior platoon NCOs and some support elements organic to the platoon such as rifle grenades, light mortars and even

medics, changing them into separately obtainable support units, and players are of course free to do so in this campaign as well. The point values for the platoons are however calculated using the full TOEs.

R1.2. SUPPORT UNIT TOEs

This campaign also uses full historical crews and TOE for support weapon teams and other support units such as forward observer teams. This means that these teams are somewhat more resilient than in ordinary CoC where such crews have been standardized to three or five men for support weapons and one man for forward observers.

In many cases the full historical crew of a support

weapon may consist of two or more Teams. Often an infantry or anti-tank gun section for example will consist of a cannon (gun crew) team and a teamster team. The gunners are led by the leader of the unit who in real life was always an NCO of some kind. It is suggested that the entire section may be activated on a 2 to do something which the two teams do together, for example deploy or move.

Here is the crew of a Soviet 45mm anti-tank gun for example:

Anti-Tank Gun Section	Notes
Gun Leader (Junior Leader with pistol, flare pistol, binoculars and riding horse)	2 Command initiatives, activates on a 3
Cannon Team	
5 Gunners with carbines and 45mm AT gun	1 Activation, activates on a 1
Teamster Team	
1 Teamster with carbine and 2 horses and gun limber 1 Teamster with carbine and 2 horses and ammunition limber	1 Activation, activates on a 1

The drivers/teamsters are sometimes commanded by a transport Junior Leader who is sometimes able to command the entire gun squad, depending on TOE. This NCO counts as a Junior Leader wounded/lost if he comes to harm.

Often the drivers/teamsters are a support unit of a support unit and for Force Morale purposes do not count as a Team or Support Unit lost, unless equipped with one or more machine guns.

A support weapon may be deployed with or without its tow vehicle(s) and associated drivers/teamsters. If deployed with the support weapon (on a Command Die roll of 2) the tow vehicles must be deployed within 12" of the weapon. The driver/teamster team may be used to replace fallen weapon crew members using normal team transfer rules: One Command Initiative may be used to transfer one man from one *Team* to another if both *Teams* are within 4" of him and under his command [CoC 4.5.2].

If a support weapon is initially deployed without its tow vehicles and drivers/teamsters. The vehicles may only be later deployed by a Leader's command or using a Command Die result of 1. The vehicles will then be entering the battle as any other vehicle and the Leader must either deploy with the vehicles or within command distance of the entry point.

R1.3 GUN LEADERS

Each Support Weapon crew is assumed to have someone capable of taking charge, even if the Support Weapon does not come with a Junior Leader or if the Junior Leader has been lost. This individual is not singled out as a figure, is not rolled for as a Leader casualty and does not count as a Junior Leader if he is lost during battle. The Gun Leader activates on a 1, has only one Command initiative and is able to Rally and put the crew on Overwatch. The Gun Leader has a command range of 4".

R1.4 SUPPORT CHOICES

Both sides have their own support lists. At the beginning of a battle each side will be assigned a number of support points which can then be used to buy support from the lists. As always in Chain of Command these points are exchanged for support, four points can buy you four items on List One, or one from List One and one from List Three, and so on.

It is additionally suggested that *some* support options be retained by the purchasing platoon for the rest of the campaign until expended or destroyed. These include the following:

- Illumination and smoke-laying devices
- Small arms such as extra SMGs, LMGs, automatic rifles, rifle grenades etc.
- Plentiful hand grenades, and any satchel charges, explosives, and other makeshift anti-tank weaponry
- Skis
- Fascines
- Heroes

Thus, four smoke pots bought for a battle but not used would be part of the platoon's equipment listing in future battles without additional support point expenditure until the player decides to use them. Such support options may not be transferred from one platoon to another, except when the platoon sub-unit holding them has been wiped out and a successful Capture roll is made (see *R1.4 Captured Equipment*).

R1.4.1 Weapons

Both sides may have the option of obtaining better weapons for some troops, for example the Russians have access to some semi-automatic rifles. Such weapons do not represent new weapons being handed to troops in the middle of a campaign, rather the fact that they have been there all campaign long but only now have the troops learned to use them effectively.

R1.4.2 Heroes

Several heroes are listed for both sides. This may be a new concept to many CoC players. When you obtain a hero using supply points one existing soldier of equal rank is replaced by the hero. He has been there all along but only now has he been noticed.

Each hero is unique in the entire Winter War (all WoNS campaigns) and may only be obtained once, i.e. if the Haapala Brothers are in the 7th Border Company in the first campaign they then cannot appear in the Independent Battalion in the second.

Heroes who are also Leaders are treated exactly like any other Leader.

Heroes who are not Leaders are treated like FOOs in that when the Section or Team they are in suffers Kills they may be hit. If they are hit, they are killed outright on a roll of 1 through 3 and are wounded on 4 through 6. A wounded Hero may be dragged along by his mates, but he does not count as a fighting man in close combat or when the effects of Shock are determined. A wounded Hero is unable to perform any actions for the rest of the Turn unless first healed by a medical orderly.

When the Turn or game ends the Hero recovers and is again capable of performing heroics.

Any Hero wounded twice in one game is dead, whether he has been healed or not during the game. The death or wounding of a Hero does not cause Force Morale rolls, unless he or she is also a

leader.

A captured Hero will make escape attempts like a Leader.

R1.4.3 Reconnaissance Elements

The Red Army employed both infantry and cavalry reconnaissance teams/sections in these battles and both are included in the campaigns. As in regular Chain of Command reconnaissance/scout teams can be included as supports on the table. Rules for cavalry are in the *1940 Blitzkrieg* supplement. Unlike Soviet infantry, the cavalry section may be divided into two teams of five horsemen, if desired.

If desired, the teams/sections can be used as aggressive reconnaissance assets before the actual Red Army platoon arrives, forcing some enemy units to deploy onto the table.

The Soviet player chooses whether he wants to use a reconnaissance team/section as on-board support or aggressive reconnaissance. If the latter, use the following rules:

The game begins with a special Turn Zero during which the Soviets will field only one unit - the reconnaissance patrol. It is suggested that the additional rules in *R3. Smaller Forces* be used

during this Turn. Roll a separate Force Morale score for this unit. This special Turn Zero does not count as a Turn for the purposes of determining whether the Finns have slowed down the Soviet advance.

The patrol will detect unmanned entrenchments from a distance of 24". The Soviet player may elect to withdraw as set out in *At the Sharp End* and *must* withdraw at the end of Turn Zero.

The fate of this patrol has no effect on Force Morale of the main Soviet force but be sure to document any casualties suffered by them as they are a tracked resource. Other than that, the game will proceed as normal. If the Russians are lucky and play well, they may be able to move a Soviet JoP or threaten or even take out a Finnish one.

If the reconnaissance is successful (if at least two Finnish units deploy AND the reconnaissance unit is not wiped out or captured) the main Soviet force will have an advantage of one extra command die on the first 1d6 Phases of Turn 1.

R1.5 CAPTURED EQUIPMENT

In CoC any equipment used by a unit is automatically destroyed when the unit is destroyed. In the Winter War however both sides made use of captured equipment. Therefore – subject to umpire approval to be determined case-by-case - in WoNS any abandoned enemy device (say a compass, binoculars, fur coat, map, pistol, SMG, or anti-tank gun) within base contact of friendly forces may be **captured** on a Capture Roll of 4-6 (5-6 if HE was used in persuading its previous owner to abandon it). The roll is made one step more difficult if the equipment is located in a difficult place (in a ditch, or underwater).

Only one roll may be made per abandoned device, if failed the device is discarded, broken or otherwise unusable.

If allowed by the Umpire, captured small arms and support weapons up to medium machine guns (excluding mortars and rifle grenades) may be immediately used by the friendly forces.

Heavier support weapons can be ***immediately taken into use*** on a capture roll of 6, or automatically if manned by proficient crews or Heroes whose description states that they may use any weapon.

If the captured weapon uses ammunition not supplied by friendly supply system (e.g. 9mm Suomi SMG being used by Soviet forces, or a 7.62mm Nagant revolver being used by the Finns) include two dice of different color when you roll To Hit. The weapon runs out of ammo and is discarded on any roll of doubles (i.e. two ones or sixes or whatever) on those two dice.

Taking over friendly abandoned equipment follows the same rules but with -1 applied to the Capture Roll (e.g. a Finnish infantry unit may take possession of an abandoned Finnish AT gun whose crew were annihilated by HE on a roll of 4-6). Where appropriate, use (to Hit rolls, whatever) of captured equipment is at -1 for the first scenario where it is used by the new owners.

R1.6 SKIS

Both sides used skis in the Winter War. Troops armed with small arms (this includes, rifles, SMGs, LMGs, light mortars, grenade dischargers, and anti-tank rifles) and some support weapons such as tripod mounted machine guns, 81/82mm mortars, flamethrowers and some even larger weapons may use skis. The heavier weapons are typically pulled along in *ahkio* sleds.

Ski troops may deploy onto the table either on or off skis for no variation in unit cost. They will deploy from Jump-Off Points whether on skis or on foot.

When deploying onto the table, ski troops may add 3" to the distance from the Jump-Off Point in Scenario One, or if they are the attacker in Scenario Two, Four or Five, Swift to Support, Hasty Defence, Blitzkrieg or Motti, AND they are deploying anywhere where they could move *at the double* (see below). So, Regular troops may deploy up 9" away. The additional distance is granted whether deploying on skis or on foot.

Skis enable *at the double* (3D6) movement on snow on roads, over Open Ground, fields, marshland and frozen swamps and lakes. 1d6 is added if moving downhill in this terrain, 1d6 is subtracted if moving uphill.

Skis can be used in woods and when crossing

Minor obstacles but confer no movement advantage.

Skis must be taken off when fording rivers, negotiating rocky hillsides, rubble, Medium or Major obstacles, or entering buildings, entrenchments, bunkers or vehicles. Skis must also be taken off while close-assaulting armored vehicles or moving into close combat.

Troops taking off their skis may do so at no penalty. Once taken off, the skis may not be put back on or used in any way for the remainder of the current Turn. Troops wishing to put on their skis may do so at the start of a new Turn. They do not need to move to the point where the skis were abandoned to do so.

Troops on skis may fire small arms only. They may also adopt Tactical stance while on skis but the next movement by the troops will then count as if crossing a Minor obstacle. While on skis, troops count as Green for the purposes of determining the effect of hits unless in Tactical stance.

Troops on skis engaged in Close Combat will count as being hit in the rear in the first phase of combat. After the first Phase of Close Combat, they will automatically take off their skis.

R2. FATIGUE AND EXHAUSTION

In real life, few units will be able to continue operating with much efficiency after twelve or twenty-four hours of non-stop fighting. WoNS introduces the effects of Fatigue on the troops. Fatigue is induced by various activities and leads to Exhaustion which is a reduction of Force Morale. Tired troops will fight less spiritedly and for shorter periods.

Action	Result	Initiative Required?	Fatigue Finns *	Fatigue Soviets *
Advance	Reorganize Stacks (Soviets). Move Stack (Soviets) or unit (Finns) up (towards enemy) on the Ladder, provided there are no enemy units on the current step of the	No	1	1

	Ladder. If the Soviet player wishes to Advance a Stack, the player must roll higher than the Exhaustion of the most Exhausted platoon in the Stack on a 1d6. If the roll fails, the Stack does not move during this Hour. The Stacks cannot pass each other on the road, the player must Reorganize if he wants to change the order or composition of the Stacks.				
Attack	Attack enemy unit on this step of the Ladder. The Red Army must always make their initial attack using one of the leading platoons (one of the platoons in the first Stack). Exception is when attacking locations known to be major Finnish defence lines (D. Jollonkorpi Suursuo, E. Palkeala, L. Pienporkku and N. Rautu) where any or all of the platoons in the first Stack may be used in the initial attack. The initial attack and any additional attacks during the same Hour must always take place on the Red table. If the initial attack was unsuccessful, subsequent Soviet attacks may be made by any or all platoons in the first Stack. Only the Red table may be used during the same Hour as the initial attack. Red, Yellow or Purple tables may be used on any subsequent Hour. When counterattacking, the Finn may select from Scenarios *2 - Probe, 3 - Attack and Defend, 5 - Flank Attack*. The Finn may use the Red, Yellow, Purple, Green or Blue table. *If attacking platoon wins* the battle, then all enemy platoons on this step of the Ladder must Retreat and the attacking side continues to hold initiative. *If attacking platoon loses* the battle, they continue to hold their end of this table, but initiative passes to the enemy. If Battle took fewer than three full CoC Turns to play, each platoon involved may immediately execute another action.	Yes	2	2
Defend	Be prepared for enemy Attack. No fatigue is suffered during Daylight if no Battle ensues.	No	0 / 1	0 / 1
Consolidate Defenses	Dig entrenchments for 1 Hour. The ground is frozen. Roll 1d6 for each Section. On a roll of 6 they have dug entrenchments for one section or heavy weapon.	No	1	1
Adjust Roadblock	Finns only. Build or take down a prepared roadblock for 1 Hour.	No	1	n/a
Burn Buildings	Set on fire all or just selected buildings at current step of Ladder and then stare at the flames while filled with emotion	No	0	1
Build Bonfire	Soviets only. Gather enough firewood to burn for three hours and keep an entire platoon warm	No	n/a	1
Retreat	Move unit one step down the Ladder (away from the enemy). Exhaustion does not affect Retreat actions.	No	1	1
Rest	Rest for 1 Hour anywhere/in a building. Rest is not	No	-2/-3	-1/-2

	possible if there are enemy units on the same step of campaign ladder.			
Reorganize	Soviets only. Change the order and/or contents of any or all the Stacks in any way you like. Minimum and maximum Stack limits apply. During a battle, units not in front line may Reorganize.	No	n/a	1 to all platoons affected

*Fatigue is increased by 1 if performing any action other than Rest during Darkness

Fatigue causes Exhaustion which is a negative modifier to the Force Morale *result* (not throw) of the unit. Fatigue is tracked per platoon.

Fatigue	Exhaustion
0 - 3	0
4 - 6	1
7 - 9	3
10	4
11	5
12	6
13	7
14	8
15	9

R3. SMALLER FORCES

Chain of Command is a tactical wargame for platoons of three or four sections reinforced with one to three support units. Such units have four or five command dice and will usually have to forego the activation of at least some of their sub-units during a Phase. The disadvantage of this system is that it does not scale well, if you have more supports it does not necessarily result in any more

action during the Phase as you will usually not roll enough activations to make them do something.

Partly to rectify this the Lardies have in their *1940 Blitzkrieg* supplement included a Red Die support option where if you buy three or more sub-units you may also buy a Red Die which can only be used to activate troops, not to add to Chain of

Command tally or to cause double phases or such.

But what happens if your unit is smaller than the norm? In WoNS it is quite possible that at some point one side will field a single section or even a team on the table with no hope of getting more troops during the game. In such a situation having four or five command dice will virtually guarantee an activation on every Phase for the small force, which again is not optimal from a gaming point of view.

The following solution is therefore suggested: Blue Dice. Depending on the *original* size of the player's force a number of command dice are substituted by Blue Dice:

Size of Force at the Beginning of the Campaign	Command Dice Substituted by Blue Dice	Modifier to Force Morale Roll *Result*
Three to four sections + possibly one to three supports	0	0
2 sections + possibly one or two supports	1	-2
1 section or team + possibly one or two supports	2	-4

The player will roll all his command dice including the blue ones in every Phase, treating results of 5 or 6 on Blue Dice as normal but ignoring rolls of 1 to 4. Any 5s rolled on Blue Dice cannot be used to activate the Commissar but they can be used to activate Guard Teams.

Blue Dice (which actually can be any color that differentiates them from the rest of the Command Dice) will be lost when Force Morale falls. It is suggested that the first and (if applicable) third Command Die to be lost due to Force Morale problems would be Blue Dice.

It is also suggested that the modifiers to Force Morale roll *results* in the preceding table be applied to smaller units. Example: A force of only two sections rolls a 1, generating a Force Morale *result* of 8. 2 further points are subtracted from the FM *result* due to the force only having two sections, therefore the starting Force Morale is 6.

R4. SURPRISE

In Chain of Command units are usually fully aware of the other's presence and are immediately able to act when the enemy appears. In real life accounts this is not always true and while such situations do not present balanced wargaming situations we must include surprise rules in order to simulate them.

Here we use a derivative of https://meeples.wordpress.com/2016/03/11/red-devils-in-the-night-rules-adaptions-for-chain-of-command/

Depending on the situation of the surprised party or, as it may happen, parties, the initial command dice are affected as follows:

Situation	Effect on Command Dice and Troops at the Beginning of Game
Sleeping, no sentries	-2 (all command dice are Blue)
Totally surprised while bathing or eating etc. No sentries or lookouts.	-1 (all command dice are Blue)
Sentries in place guarding but location is not in front line (guarding	Only 1 normal Command Die, the

bridge, headquarters, ammo dump), no expectation of attack. Taking a Rest action and at least two Locations away from front line. Or marching on road.	rest of command dice are Blue. Two two-man Guard Teams per platoon
Sentries in place. Unit in front line but taking a Rest action. Or some advance indication of possible attack. Or enemy has information gained from a deserter.	Two command dice are Blue. Two two-man Guard Teams per platoon
Heightened awareness but situation unclear. Or enemy has an unexpected edge (flanks unit or similar)	One command die is Blue. Two two-man Guard Teams per platoon

Use the Blue dice method described in *R3 Smaller Forces*, above. Do not make changes to Force Morale. A negative or zero number of Command Dice means that the surprised party is unable to do anything.

In order to simulate the confusion and lack of control in a surprise situation, for the first 1d6 Phases the side taken by surprise *must* use all its available Command Dice. For example, if two 2s are rolled on Phase 1, the player must deploy either two sections or one Senior Leader. Later, when he has units already deployed onto the table which could use the Command Dice results, he may use them to activate the deployed units. However, if any Command Dice are left over after activating already deployed units, he must then deploy more units to use up the remaining Command Dice.

Guard Teams consist of two men armed with any of the weapons available to the platoon. They activate on a 1 or 5. When activating on a 5 they do not add to their CoC die pip count. When Surprise is in effect, only Guard Teams may deploy as normal. All other sub-units can only deploy on their first activation, not perform any other activation such as go tactical or on overwatch, throw grenades or reduce shock. On subsequent activations they may perform as usual.

After 1d6 surprised player Phases and every 1d6 Phases thereafter the Surprised unit rolls 1d6: On a 4-6 one Blue die changes to a regular Command Die.

The surprise situation lasts for the first Turn only. The surprised side is unable to withdraw or voluntarily exit the table until it has regained its normal number of Command Dice.

R5. NIGHT FIGHTING

As far as I know there are no official rules in CoC for night fighting. Since two-thirds of this campaign will probably be fought in darkness we will modify those found at

https://meeples.wordpress.com/2016/03/11/red-devils-in-the-night-rules-adaptions-for-chain-of-command/ We'll also use the moonlight rule contributed by Tomm.

R5.1 VISIBILITY

Visibility is reduced to 18" if the moon is obscured, 24" if it is not. Figures are unable to be seen beyond this range, unless the enemy is targeting muzzle flashes. The state of the moon may be changed using a Chain of Command die. Visibility in woods is only 8" regardless of the state of the moon.

Any unit that fired in the previous phase can be

targeted at any range by all units within LOS due to muzzle flash. Any unit targeted thanks to muzzle flash can only be hit on a roll of 6.

All targets of direct fire count as being in one level of cover higher than normal to represent firing at targets obscured by darkness (i.e. Open = Light, Light = Heavy, Heavy = Bunker).

Artificial illumination does not affect the increased

cover provided by darkness, only whether the target can be *engaged*. Using illumination devices does not improve visibility *inside* woods or buildings.

Illumination Device	Notes and Use
Flare Pistol	Every Senior Leader and every MMG or HMG team are considered to have a flare pistol. Designate target point within 24" of user. Roll 2d6 adding 1 if range is no more than 12": <table><tr><th>2d6 Roll</th><th>Effect</th></tr><tr><td>2 - 3</td><td>Deviate 2d6 inches, out of flares</td></tr><tr><td>4</td><td>Deviate 2d6 inches</td></tr><tr><td>5</td><td>Deviate 2d6 inches</td></tr><tr><td>6</td><td>Deviate 1d6 inches</td></tr><tr><td>7</td><td>Deviate 1d6 inches</td></tr><tr><td>8</td><td>Deviate 1d6 inches</td></tr><tr><td>9+</td><td>On target</td></tr></table> Illuminates a 18" diameter area for the firer's current Phase only.
Illumination Rocket	Illumination rockets may be purchased as support options. Designate a target point anywhere on the table. Roll 2d6: <table><tr><th>2d6 Roll</th><th>Effect</th></tr><tr><td>2</td><td>Deviate 4d6 inches</td></tr><tr><td>3</td><td>Deviate 4d6 inches</td></tr><tr><td>4</td><td>Deviate 4d6 inches</td></tr><tr><td>5</td><td>Deviate 3d6 inches</td></tr><tr><td>6</td><td>Deviate 3d6 inches</td></tr><tr><td>7</td><td>Deviate 2d6 inches</td></tr><tr><td>8</td><td>Deviate 2d6 inches</td></tr><tr><td>9+</td><td>On target</td></tr></table> Illuminates a 36" diameter area for the rest of the Turn. Drifts with wind 1d6" at the end of firer's every Phase.
Vehicle headlights or turret lights	Many vehicles have headlights. Some Russian tanks, e.g. some models of T-26 and BT-5/7 also have turret lights enabling the use of the tanks weapons when the turret is not pointed towards the front of the vehicle. Headlights and turret lights provide illumination in front of the vehicle/turret out to 36". Vehicles with headlights or turret lights turned on are automatically spotted if in LOS. Turning any/all lights on or off requires one command initiative.
Streetlights	Illuminates an area of 6" in all directions. In addition, any target moving while located between a lit-up area and the firer is considered to be illuminated.
Burning building or vehicle	Illuminates an area of 9" in all directions. In addition, any target located between a burning building and the firer is considered to be illuminated. 6" of blocking smoke is projected from the fire towards the direction of the wind.

Indirect area fire (for example artillery or mortars) can be used on area targets (e.g. woods, building, whatever) without illumination as long as the enemy has previously been spotted in the location targeted.

Capture Rolls are at -1 in darkness when capturing unit has not been within close combat range of equipment being captured.

R5.2 SOUNDS

Sounds can reveal the location of enemies even in total darkness. Note the moving speed (in inches) of the units, they can be spotted at distances of up to four times this speed during the next enemy phase. For example, a unit moving 12" can be spotted up to 48" away. Crews of vehicles are unable to hear sounds if their vehicles' engines are running.

Any unilluminated unit spotted more than 18" away is heard rather seen can be engaged as if firing at muzzle flashes, see above rules.

R5.3 LEADERS

Giving orders and generally just getting anything done is more difficult in the dark. 3" are subtracted from command ranges of leaders.

R5.4 FORCE MORALE

Night combat is scary. The initial Force Morale roll *result* is modified by -1 in Darkness. Any time a Unit suffers Shock or Kill, one Additional shock is also caused.

Example: *A section is hit by a hail of machine-gun fire, suffering 2 shock and 2 kills. The total amount of shock received is three (2 shock +1 for darkness). The same section is then hit by rifle fire which causes one more shock (+1 for darkness).*

R6. LONGER RANGES

CoC is a skirmish game and as such action on the games table usually involves action at ranges not

exceeding 200 meters.

CoC imposes what I feel is an unrealistic restriction on submachine guns, restricting them to a range of no more than 12", which is something like 35 meters. This effectively prevents SMGs from functioning realistically in the game.

In WoNS off-board units can sometimes engage and be engaged by on-board units at longer ranges.

WoNS introduces the additional range brackets of Long, Extreme and Ridiculous ranges. These are indicated on the Arsenal Table for each weapon.

Table Five – Roll to Hit			
Range / Target	Green	Regular	Elite
Close	3-6	4-6	5-6
Effective	4-6	5-6	6
Long	6	7 (Reroll 6s: 4-6 is a hit)	8 (Reroll 6s: 5-6 is a hit)
Extreme	7 (Reroll 6s: 4-6 is a hit)	8 (Reroll 6s: 5-6 is a hit)	9 (Reroll 6s: 6 is a hit)
Ridiculous	8 (Reroll 6s: 5-6 is a hit)	9 (Reroll 6s: 6 is a hit)	n/a

R7. COVER

Accounts of the Winter War often describe how entrenched Finnish units could withstand repeated attacks by superior Soviet forces. In CoC such attempts often fail because of the effects of

Shock produced by the considerable firepower of the Soviet units. It seems that some adjustment to cover rules is necessary in WoNS.

Description	Cover Level	Change
Entrenchments – Foxholes and Trenches	Heavy Cover	Occupants of the entrenchment may assume Tactical stance which causes all kills by non-H.E. fire to become only shock. In addition, when targeted by H.E: fire Tactical occupants are counted as being in Heavy Cover even though such fire would normally reduce their cover level by one.

R8. COVERING FIRE

In Chain of Command, Covering Fire affects a frontage dependent on the type of unit laying down the fire. For example, a team will affect 4" of frontage.

In WoNS it is suggested that the frontage is

determined by the firepower of the unit. A Finnish rifle section with leader, SMG man and eight riflemen will therefore affect a frontage of 11" (1+2+8) if the target area is within 7 to 12" of the team.

R9. MEDIUM MACHINE GUNS

By default, medium machine guns appear to work like ten rifles in CoC. This is not sufficient for the

purposes of this campaign supplement.

R9.1 SUSTAINED FIRE

This rule is modified from that given in the article *Cocking Up Through the Mud and the Blood* in the Lardies' *Christmas Special 2014*.

Sustained fire refers to machine guns targeting an area with a high volume of fire in order to keep the enemy from taking any action. A tripod, wheeled or sled mounted machine gun team can perform Sustained Fire when directed to do so by the leader who must use all of his command initiatives to activate it. The Sustained Fire lasts until the end of the Turn, or until a Leader orders the machine gun to stop firing Sustained Fire or to do something else (move or shift their fire etc.).

Sustained fire creates a Beaten Zone of 6" radius from Aiming Point. Any unit (friendly or enemy) will be shot at using Overwatch Fire rules *at half normal firepower* (rounded down) when acting in the Beaten Zone. Any target the Beaten Zone but not visible due to smoke, darkness or a weather condition will only be hit on a 6. Any target in the Beaten Zone who could not be hit by regular machinegun fire is unaffected by the Beaten Zone. In addition, when activated by a roll of 1 or the action of a Leader, the machine gun can shoot normally at units in the Beaten Zone (only). This additional fire does not stop the Sustained Fire. Sustained Fire hits the whole section, even if only one target team acts (i.e. hits are divided between the section's teams).

R9.2 SUSTAINED OVERWATCH

Sustained Overwatch refers to machine guns using their brutal firepower to immediately target any enemy action in their overwatch sector. A tripod, wheeled or sled mounted machine gun team can perform Sustained Overwatch when directed to do so by the leader who must use all of his command initiatives to activate it. This works like regular overwatch (see Chain of Command rules section and CoC Errata/FAQ section *9.1.3 Firing on Overwatch*) with 90 degree arc of fire but lasts for as many shooting actions as the machine gun team has loaders, until the end of the Turn, or until a Leader orders the machine gun to stop performing Sustained Overwatch or to do something else (move or shift their fire etc.).

Note that according to the Errata/FAQ overwatch is triggered as follows:

Event	Triggers overwatch fire?
Enemy unit is in or deploys into overwatching unit's arc of fire but does not move or attack	No
Enemy unit moves in or into overwatching unit's arc of fire	Yes
Enemy unit attacks while in overwatching unit's arc of fire	Yes

R9.3 INDIRECT FIRE

The *Blitzkrieg 1940* supplement gives rules for off-table machineguns firing direct fire from a reasonable distance - say 600 meters away.

However over extended ranges (see *R6. Longer Ranges*) the nature of machine gun fire changes - the fire becomes very inaccurate but the bullets arc in from the sky at a higher angle.

Indirect-firing machine guns may be available to either side in this campaign and they may be activated using a 1 or 3. They can never be on overwatch or use other special fire modes listed in this section of the optional rules.

Indirect machinegun fire will typically be conducted from Long, Extreme or Ridiculous ranges. Indirect machinegun fire removes any benefit the target might seek from Tactical stance, unless the target is in a foxhole or other entrenchment.

R10. MINEFIELDS

R10.1 SPOTTING MINEFIELDS

In CoC minefields are always conveniently and obviously marked. In the Winter War this was not so. In WoNS unmarked minefields are marked on maps and/or shown to the umpire.

An infantry unit can spot any unmarked minefield within 6" by rolling 5-6 on a d6. A tank crew needs to roll a 6, unless the tank is unbuttoned (tank leader and/or driver have opened their hatches and are observing the terrain). A minefield with tripwires is observed at +1. Darkness with no artificial illumination causes observation attempts to be at -1. Designated engineer or reconnaissance units have a +1 to spot minefields.

A unit entering a minefield gets an additional spotting roll once in the minefield.

R10.2 ANTI-PERSONNEL MINEFIELDS

When an infantry unit enters an anti-personnel minefield pick one Team (even if the moving unit is a Section pick only one Team. Determine by random if the Section Leader or other special characters attached to this Section are with this Team) crossing the minefield and roll a number of d6 dice determined by their movement speed for every soldier moving in minefield:

Setting off a Mine		
Type of Minefield	**Movement Speed**	**d6 Dice to Roll**
Minefield (anti-tank or anti-personnel) with pressure detonators	Running 3d6 or 4d6	1
	Advancing 2d6	2
	Crawling 1d6	3
Minefield (anti-personnel) with tripwires	Running 3d6 or 4d6	4
	Advancing 2d6	2
	Crawling 1d6	1

Any 6s rolled mean the soldier has possibly set off a mine. Roll 1d6 to determine how many inches from the closer edge of the minefield the first man of the Team has moved when this happens. Choose at random one of the soldiers who has possibly set off a mine and roll a 2d6 Hit Effect on Table Six on him (cover state is Open).

If either result is a Kill or both are Shock the soldier has been killed or maimed and is out of action. If both Miss the soldier has noticed the mine just at the last possible moment, averted an explosion and alerted his comrades. Any other result means the soldier has narrowly escaped harm from the exploding mine and is now prone. Any Shock results affect the Team normally, but all Shock caused by mines is doubled. In any case the other Team members are alerted and may stop moving before they detonate any mines. If the Team was part of a Section, then the Section's other Team is unaffected but has moved the same distance into the minefield. Going Tactical in the minefield counts as 1D6 movement.

A vehicle will automatically set off anti-personnel mines. Anti-personnel mines cannot harm a tank. If the mines are ones with tripwires and there is infantry within 2" of the tank, they are affected by a 2d6 attack.

R10.3 ANTI-TANK MINEFIELDS

Only running men (moving at 3d6 or 4d6 speed) may set off an anti-tank mine. Use the same procedure as with anti-personnel minefields, above, to determine setting off a mine.

Next, determine effect using 2d6 as above, but: If both results are Kills the soldier has been killed and the rest of his team is affected by a 6d6 explosive attack which does not reduce cover level, but which causes double shock. Any other results mean no effect.

The chances of a vehicle setting off an anti-tank mine depend on the location of the minefield:

Location of Anti-Tank Minefield	Chance of vehicle setting off a mine (roll 1d6)*
In an area where the path to be taken by enemy vehicles is obvious (on a narrow road, or in a tight space between two houses for example)	3-6
In an area where the path to be taken by enemy vehicles can be anticipated (on a road, or between two houses for example)	4-6
Any other area	5-6

* Medium tanks (the T-28) have wide tracks and add +1 when rolling on the above table.

The effect of the anti-tank mine on the vehicle and its occupants depends on the type of vehicle:

Vehicle Type	Effect (roll 1d6)		
	Hard surface (road)	**Softer surface (field)**	**Deep Snow**

Medium Tank (T-28)	1-2: None
	3-7 Immobilized
	    +2 Shock
		1-4: None
		5-7 Immobilized
		    +2 Shock
			1-5: None
			6-7 Immobilized
			    +2 Shock

Light Tank (T-26, BT) or medium tractor (STZ-5)	1: None
	2-6: Immobilized
	    +2 Shock
		1: None
		3-6: Immobilized
		    +2 Shock
		7: Destroyed
			1-3: None
			4-6: Immobilized
			    +2 Shock
			7: Destroyed

Tankette (T-27, T-37A, T-38) or light tractor (T-20)	1: None
	2-5: Immobilized
	    +2 Shock
	6: Destroyed
		1: None
		2-6: Immobilized
		    +2 Shock
		7: Destroyed
			1-2: None
			3-6: Immobilized
			    +2 Shock
			7: Destroyed

Truck or horse-wagon	Destroyed. Passengers suffer 5 hits	Destroyed. Passengers suffer 5 hits	Destroyed. Passengers suffer 4 hits
Car, horse cart, or cannon	1-4: Destroyed. Passengers suffer 5 hits 5-6: Destroyed and overturned. Passengers suffer 5 hits	1-4: Destroyed. Passengers suffer 5 hits 5-6: Destroyed and overturned. Passengers suffer 5 hits	Destroyed. Passengers suffer 5 hits

Note that the above table is specific to early Finnish anti-tank mines models 36 and 39 which had fillings of

about three kilograms of explosives. The Sliding Mine has much more explosives and gets +1 on the above table and causes an additional hit on any passengers.

R10.4 DEALING WITH MINEFIELDS

Once they realize they are in a minefield, troops can stay put, take a chance and run out or try to clear the minefield.

R10.4.1 CLEARING OF MINEFIELDS BY ORDINARY TROOPS

In Chain of Command minefields can only be cleared by dedicated engineer teams, but in real life such teams were not always available. As we are introducing unmarked minefields to the game, we must also allow troops other than engineers to clear minefields.

Any Team may attempt to clear a minefield using bayonets and spades. While Engineer Mine Clearance Teams may clear a path through any 6"x6" minefield by rolling a 6 on d6, ordinary troops and engineers without proper equipment need to achieve two 6s.

On any roll of 1 an additional d6 must be thrown and if the result for that is also a 1 then a mine has exploded. Use the procedures above to resolve such a situation.

R10.4.2 NEGOTIATING KNOWN MINEFIELDS

Sometimes troops just cannot take the time to clear a minefield and must just attempt to cross it.

Use the system in R10.2 to determine the results of such an attempt.

R11. BOOBY TRAPS

The Finns were adept at booby trapping. Any interesting object such as a bicycle or location such as a house could be booby trapped.

Booby traps are like minefields but affect a location (such as a building) or an object. If a booby-trapped location is entered or a booby-trapped object moved (for example a capture roll is attempted) the booby trap will be automatically set off. Outdoors, the trap is a 3d6 attack, indoors a 4d6. Shock is always doubled.

An infantry unit can spot a booby trap within 2" by rolling 5-6 on a d6. Darkness with no artificial illumination causes spotting attempts to be at -1. Designated engineer or reconnaissance units have a +1 to spot minefields. Once the first booby trap of the campaign Ladder has been spotted or set off, further spotting attempts are at +1.

R12. GRENADES AND GRENADE BUNDLES

CoC has its own system of tracking hand grenades.

For other game systems we can assume that all infantry apart from support weapon (MMG, mortar, anti-tank gun, etc.) crews and officers and Commissars have one hand grenade each. Both sides have access to both regular egg hand grenades and more powerful stick hand grenades. If a player feels he needs lots of grenades he may purchase the Plentiful Grenades support option.

In principle the Finnish stick hand grenade with its 120 grams of TNT could penetrate about 10mm of steel. In WoNS, Finnish stick hand grenades can be used as very light AP 1 satchel charges. Follow the usual satchel charge rules but allow the hand grenade to be thrown at -4 to the range throw. Of course, when thrown from a distance the grenade might well bounce off the tank before exploding, therefore if the range is more than 3" and the

grenade hits, roll 4-6 on a 1d6 to prevent the grenade from bouncing off harmlessly. If it does not bounce, run an AP 1 attack as normal.

Several stick hand grenades could be bundled together using any available string or belt in order to form an expedient but unwieldly satchel charge. Such makeshift weapons were seldom used successfully but they did provide desperate infantrymen with at least a modicum of anti-tank capability.

By using one command initiative a Leader may order a section or team to prepare grenade bundles. The men making grenade bundles of course cannot shoot or move during the phase. At least three Finnish stick hand grenades or Soviet RDG-33 grenades are needed to make one grenade bundle with AP 2 and HE 3. After the bundles have been prepared, the men no longer have grenades unless the player has purchased the Plentiful Grenades option. The grenade bundles then function as satchel charges, below.

A field-made satchel charge and a (probably factory-made) Molotov Cocktail. There is a wooden board with a handle, to which have been attached four one-kilogram sticks of TNT and a detonator. Then a piece of strong packaging paper has been wrapped around the charge and the whole thing tied down with a piece of wire. The special match sticking out of the charge acts as the fuse. Attached to the sides of the cocktail are two long matches which are lighted up before the bottle is thrown (SA-Kuva).

R13. SATCHEL CHARGES

Any team or section can use a satchel charge (see CoC FAQ, page 7). CoC has its own system of using satchel charges in rules section 9.3.4 Tank Hunters. In those rules, satchel charges need to be placed and are all valued at AP 6. In the rules themselves satchel charges have no anti-personnel effects, though the FAQ does amend that to say that actually their AP factor is equal to their HE factor.

These optional rules add a bit of variation to the

proceedings.

The Finns had three types of standard satchel charges, the two, three and four-kilogram charges. Their manufacture would begin in December 1939 so at the time of our campaign they were not yet available. Nevertheless, similar satchel charges were rigged from hand grenades and blocks of TNT in the field and reports specifically mention 6 kg charges, so I have used the standard charge

weights here. AP and HE strengths for satchel charges are listed in the support options listing for both sides.

A 4 kg satchel charge could be thrown to a distance of 10 meters [B84]. In WoNS it is suggested that charges may either be *placed* (as discussed in CoC section *9.3.4 Tank Hunters*) or thrown 1d3 inches if the placer's movement does not reach the tank. If the throw does not reach the target tank, the tank suffers no damage. The throw can also be used in order to attack the rear deck of the target even in a situation where the anti-tank infantryman approaches the target vehicle from the front (CoC section 12.1.).

A thrown satchel charge might bounce off the target vehicle and explode harmlessly on the ground. If the satchel charge hits the target, roll 3-6 on a 1d6 to prevent the charge from bouncing off harmlessly and apply the following modifiers:

THROWING SATCHEL CHARGE OR GRENADE ONTO VEHICLE CHART: Roll 3-6 on 1d6	
Satchel charge is equipped with hooks or glue to prevent bouncing off target (glue only works if the temperatures are -15°C or higher)	+1
Distance thrown is more than 4"	-1
Target vehicle moved 1d6/2d6/3d6 during previous enemy Phase	-1/-2/-3

VEHICLE TOP AND BOTTOM ARMOR CHART*		
Target Vehicle	Hull and Turret Top Armor	Hull Bottom Armor
T-20	1	1
T-27 [B66]	1	1
T-26 m/1931, m/1932, KhT-26 [B77]	1	1
T-26 m/1933 onwards all versions [B77]	2	1
T-37A and T-38 [B65, p. 53]	1	1

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If the end result is 3+ the satchel charge or grenade does not bounce, run an AP attack as normal but use the Hull and Turret Top armor stats from the Vehicle Top and Bottom Armor Chart included in this section.

If the placer's movement away from the tank is only 1" then the placer suffers half the HE attack of the satchel charge.

An alternative to placing/throwing the satchel charge onto the tank is to throw it under the tank. This was often the default way that troops were instructed to use satchel charges [B36, p. 154]. To throw a charge underneath the tank, the tank hunter needs to be within a 60-degree arc towards the front or the rear of the tank (armored cars may be attacked from any direction). One advantage of throwing the charge underneath the target tank rather than onto it is that it is easier to throw a heavy object low than high, so the throwing range is 1d3+1 (some heroes are listed as being able to throw satchel charges longer distances but they get no additional advantage for throwing low).

There is also little likelihood of the charge bouncing off the target but if the target vehicle moved at least 2d6 during last enemy Phase then subtract 1" from the throw range. While there is no guarantee that the charge will be in contact with the tank when it explodes this is compensated by the explosion happening in an enclosed space and affecting the usually very thin bottom armor of the tank. Subtract 1 from the AP value of the charge but use the following armor stats:

BT-5 [B78, p. 58]	Front hull 3 Turret 2 Rear hull 2 or 3	1
BT-7 [B78, p. 76]	Front hull 4 Turret 2 Rear hull 2 or 3	1
T-28 [B76, p. 15]	Front hull and turret: 3 Rear hull: 2	3
Armored Cars [B26]	1	1

* When using the armor values in this table the attacker counts each 4, 5 or 6 as a hit, the defender each 5 or 6 as a save.

Satchel charges were also used against enemy infantry. Having someone in a desperate situation throw a satchel charge at the approaching Russians is in fact a recurring scene in Finnish war literature.

A satchel charge may only be used against infantry when the unit holding it is ordered to do so by a leader using one command initiative. A satchel charge will be used against infantry in close combat. In such a situation the satchel charge adds its HE factor number of dice to the close combat dice pool, but one leader command initiative and one man's d6 are lost. The net effect of using a satchel charge in close combat is therefore to add HE factor -2 dice to the close combat pool. It is suggested that the use of only one satchel charge be allowed per round of close combat.

When close combat is not possible (see CoC rules section 13), satchel charges may be thrown as hand grenades with 1d3+1" range and an effect equal to their full HE factor.

If thrown into an entrenchment or bunker the charge's HE factor is augmented by 2 or 3, respectively, and the targeted troops are in Open cover.

A row of what look like factory-made 2 kg satchel charges in a trench during the Continuation War (SA-Kuva)

A Soviet rifle grenadier team shooting with a Dyakonov system rifle grenade launcher. The assistant, on the left, is preparing a grenade while the grenadier aims another one without using the sights or bipod.
Picture from P. Petrasevitch's 1932 manual Aselajit ja sotatekniikka

R14. RIFLE GRENADES

The only rifle grenade used in WoNS is the Soviet Dyakonov system launcher which fires the VDG1930 grenade. The system is different from many of the later types covered by CoC rulebook in several ways, using regular rifle ammunition instead of special cartridges and a time-fused grenade. The Dyakonov launcher can only be attached to the standard Soviet model 1891-30 rifle.
http://www.saunalahti.fi/~ejuhola/7.62/djakonov.html

The rifle grenade featured prominently in the Red Army's 1932 provisional field manual where a separate section of six grenadiers with three rifle grenade launchers was introduced in the French fashion. In other organizations a rifle grenadier was included in each section. By the time the Winter War begun the rifle grenades were being replaced by 50mm mortars which were much more efficient and accurate weapons. Despite this, rifle grenades were still widely used in the Winter War and in the early part of the "Great Patriotic War".

Rifle grenades are slow to load and thus a given grenadier is unable to fire a rifle grenade on consecutive Soviet phases. Also, if the grenadier fires a bullet during this phase, he won't be able to fire a rifle grenade on the next Soviet phase. Rifle grenades are considered to be plentiful, but a grenadier will run out of them if he rolls two 1s on his to hit dice.

In normal CoC rules a leader needs to use a command initiative to order a rifle grenade to be fired. Because Soviet section leaders are Inferior Junior Leaders with only one command activation it is suggested that where the rifle grenadier is an integral part of the section (in the 1938 Soviet platoon organization) activating the whole section to fire is sufficient to have the entire section (riflemen, rifle grenadier and LMG) to fire all their weapons - including the rifle grenade - at the enemy.

A Pinned unit may not use any of its rifle grenades, but it may still use its rifles to shoot bullets at 50% reduction to its firing dice as per normal rules.

Official manuals give the Dyakonov VDG1930 grenade a range of some 800 meters! All indirect fire must be done within reasonable LoS of the firer.

Type of Fire	Target Type	Close	Effective	Long	Extreme
Indirect	Any		Range 18-60" Roll 2d6 Hit on 4-6 Reduce cover by one	Range 61-80" Roll 2d6 Hit on 5-6 Reduce cover by one	Range 81-315" Roll 1d6 Hit on 6 Reduce cover by one
Direct *	Area target *	Range 0-12" Roll 2d6 Hit on 4-6 Reduce cover by one	Range 13"-24" Roll 2d6 Hit on 6 Reduce cover by one		
Direct	Door or window	Range 0-12" Roll 1d6 to Hit Hit on 4-6 Roll 3d6 Effect Target is in Open cover	Range 13-24" Roll 1d6 to Hit Hit on 6 Roll 3d6 Effect Target is in Open cover		
Direct	Firing slit	Range 1-3" Roll 1d6 to Hit Hit on 3-6 Roll 3d6 Effect Target is in Open cover		Range 4-6" Roll 1d6 to Hit Hit on 5-6 Roll 3d6 Effect Target is in Open cover	Range 7-12" Roll 1d6 to Hit Hit on 6 Roll 3d6 Effect Target is in Open cover

* In this case the grenade must be fired at a target which is or is near something (house, trees, vehicle etc.) which will stop a 360-gram projectile travelling at perhaps 100 meters per second. If there is nothing to stop a rifle grenade, for example in the middle of a field, the unit cannot be targeted by direct fire. A rifle grenade cannot penetrate house or bunker walls, entrenchments or armored vehicles. A rifle grenade will penetrate house doors and windows, and unarmored vehicles.

Because of its time fuse the Dyakonov VDG1930 grenade differs from a hand grenade solely by its delivery mechanism and its smaller explosive charge. The weapon's Finnish manual indicates that the time fuse was to be used so that the grenades would explode five or so meters above the target. However, it seems unlikely that air bursts would have been too easy to achieve in an actual combat situation. It is therefore suggested that for systems other than Chain of Command their effect be treated as hand grenades. In CoC the rifle grenade does 2d6 effect, reducing cover by one level if target is not in a building.

R15. THE 50mm MORTAR

The Soviet 50mm mortar model 1939 is a brand-new weapon at the beginning of the Winter War. Inspired by a slew of similar European weapons, the new mortar is limited by its small caliber and non-existent bomb selection, but its high rate of fire makes it a good weapon for the suppression of enemy troops. Historically the Finns considered it a nuisance weapon, but they were happy to use captured examples until they ran out of bombs.

In WoNS, the Soviet 50mm mortar is a 2d6 weapon which causes one additional shock when any number of shock results from its use. It has a Minimum Range of 18". It fires only H.E. bombs and has unlimited ammunition (56 bombs are carried per mortar [B21, p. 155]) until two 1's are rolled after which point it will be out of ammunition for the rest of the game.

In the 1939 organization three of these mortars are operated by the 11-man mortar section which breaks down into three teams of three men, plus a command team of one NCO and a messenger. The mortar section leader can order the entire section to fire simultaneously using just one command initiative.

When separately obtained as a support unit the mortar is operated by a three-man Team led by a Gun Leader (see *R1.2 Gun Leaders*) who is not a Leader in the CoC sense. The Gun Leader does however have a flare gun and can illuminate the battlefield with it on the same command initiative which is used to have the rest of the crew to fire the mortar.

In CoC light mortars can fire at any enemy seen by anyone in their platoon. As this is not realistic it is suggested that in WoNS light mortars do not require a line of sight to see a target in order to fire at it, but any target they engage must be in line of sight of a friendly *Leader or the Gun Leader* (who is considered to have a command range of 4"*). The Leader directing fire must be within command range of the mortar crew. Communication distance can also be extended using tools such as signal paddles/indicators (which require LoS between signaler and mortar crew) and field telephones. Even a Pinned leader is able to direct mortar fire.

In CoC 50mm mortars reduce cover by one level unless target has overhead cover. In WoNS Woods are not considered as overhead cover but roofs of buildings are. They have no effect against targets in bunkers. 50mm mortars do not destroy Crewed Weapons or damage the structure of buildings.

A Finnish soldier with ROKS-2 flamethrower (SA-Kuva)

R16. FLAMETHROWERS

Flamethrowers are very powerful weapons in Chain of Command. To tone them down a bit, it is suggested that they should not be used against moving targets (targets which moved during their last phase) and in ambushes.

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R20. GENERAL GUN GUIDELINES

The treatment of artillery and direct-firing guns in Chain of Command seems a bit simplistic. Anti-tank and infantry guns are simply firing AP shells at armored targets and HE shells at unarmored, and that is it. Historically of course the gunners had various options available to them and this section is here for those players who would like explore them on the tabletop. Specifics on how each gun performs are given in the sections below.

R20.1. ARMOR-PIERCING PROJECTILES

There are basically two kinds of armor-piercing projectiles during this period, the shot and the shell. The shot is simply a hardened piece of metal containing no explosives. It is usually less expensive to manufacture than a shell and may in fact have better penetration performance than a shell. As it penetrates the enemy vehicle it showers anything near its path with metal fragments

The armor-piercing shell on the other hand contains a very small explosive charge designed to explode on the inside of the target. Even a small explosion inside the cramped innards of a tank will stun or kill crew members, as well as send a hundred metal fragments ricocheting inside the vehicle until they hit something soft or run out of velocity. As such they tend to be more effective than shot when a penetration is achieved.
.

Besides anti-tank uses armor-piercing shells can also be used to attack enemies behind stone walls or inside stone houses - the shell will penetrate the structure and explode behind the wall. As it explodes behind the wall, the enemy troops are not in cover and if the explosion happens inside the house it will be somewhat more forceful than if it happened outdoors. This is actually how Red Army tanks dealt with the stone walls of Riikola Cemetery in these battles.

In these battles the Russians also used armor-piercing shells to demolish anti-tank rocks. The 45mm gun for example was easily accurate enough to target a rock and powerful enough to break it with a single hit

R20.2. HIGH-EXPLOSIVE PROJECTILES

Рис. 5. Граната. Слева — в полете, справа — в момент разрыва при установке взрывателя на осколочное действие.
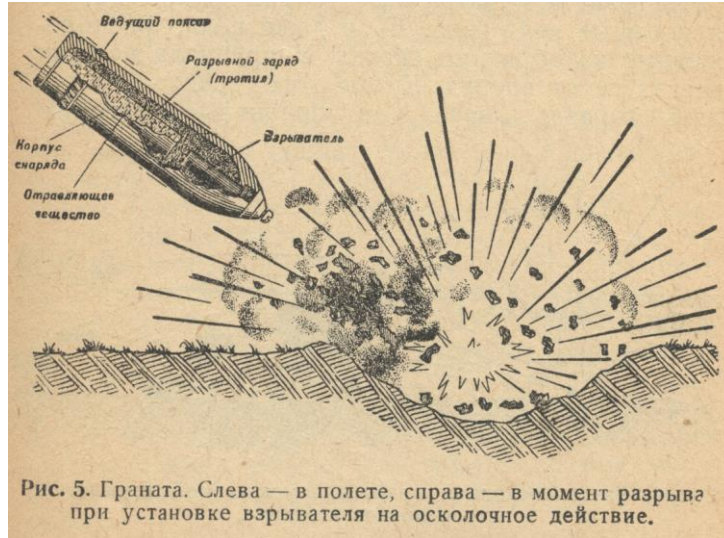
High-explosive shells could usually be set to fast or a slow action. When set to fast the shell explodes as soon as it hits anything, and when set to slow the shell penetrates the target, or bounces, and explodes.

When set to slow fuse the H.E. shell will penetrate a wooden wall and explode on the inside. In CoC the effect of the explosion will be stronger and targets inside the house will be considered to be in Open cover.

Another way to use the slow setting is to bounce the shell off the ground in front of and have it explode in the air above the target. In CoC such use would remove the Tactical (prone) cover bonus of any infantry targeted.
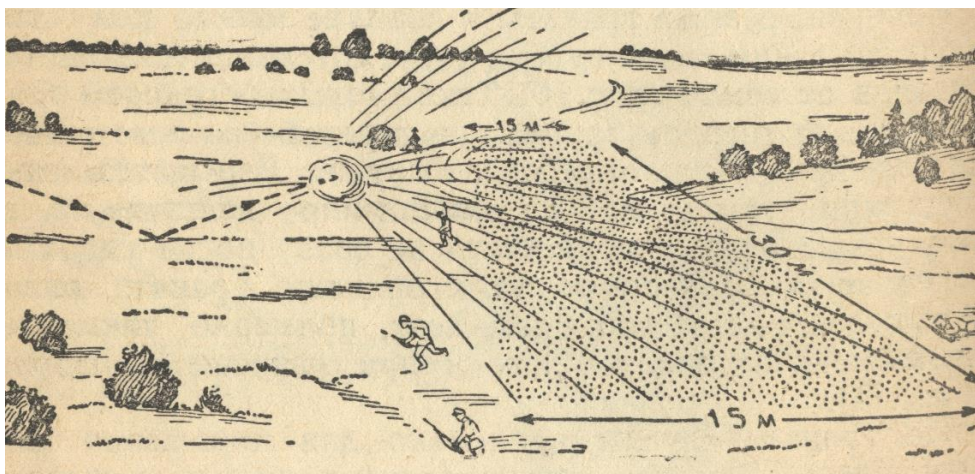
Bouncing the shell off the ground. Picture from the Soviet 76mm Regimental Gun manual.

R20.3. CANISTER

Canister shots may be available for Soviet guns. A weapon known from the time of the earliest cannon, canister shots typically contain 100-600 lead-antimony balls which each weigh around 11 grams, turning the artillery piece into a giant shotgun. It is intended for use against enemy infantry in the open at less than 200-meter ranges [B19, p.429]. Normally only 1d6 rounds of this last-ditch defensive ammunition will be carried.
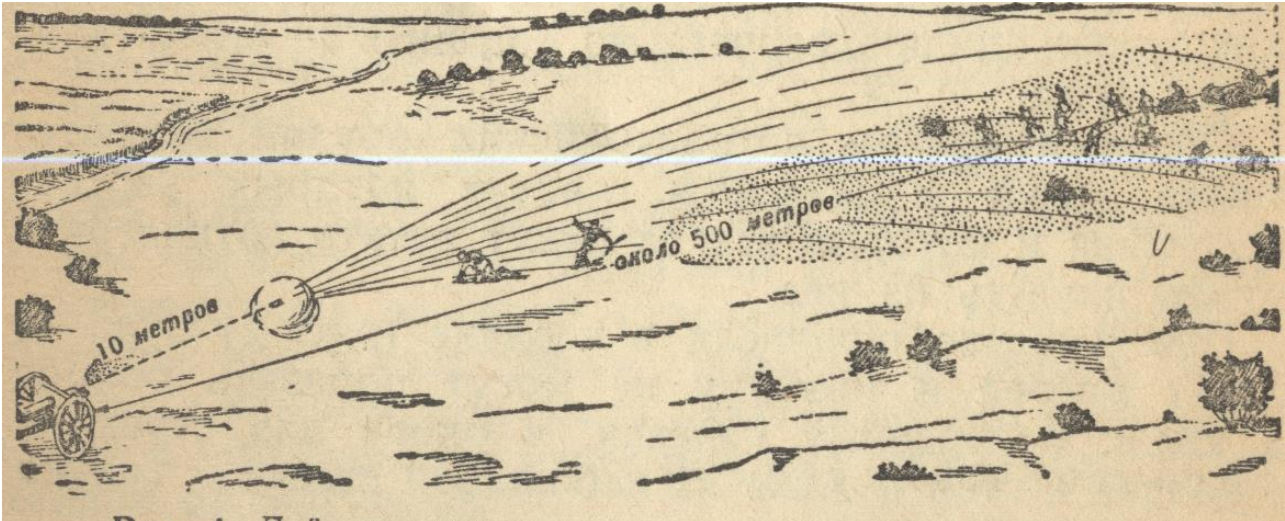
Picture from the Soviet 76mm Regimental Gun manual.

Canister shot may be used on the Chain of Command battlefield using these rules. Measure range and determine the width of the target zone using the tables below. The target zone extends 4" beyond its front edge. Count the number of men in the target zone and figure out the number of attack dice. Roll the dice on Hit Table 9.1 as if firing small arms.

Distribute hits normally, among any units within 4" of any part the target zone.

Roll for effect on Effect of Hit table 9.1. The maximum number of Kills is the number of men in the target zone. Any additional Kill results are turned into Shock, but the maximum number of Shock caused is twice the number of men in the target zone. Leader hits are handled in the normal manner.

Canister does not reduce cover. It also does not damage support weapons or have any effect on the structural integrity of buildings.

45mm Canister Ammunition			
Range	Target Zone Width	Attack Dice Shch-210, 119 Pellets	Attack Dice Shch-240, 128 Pellets
0-6"	1"	8 x number of men in target zone	9 x number of men in target zone
-10"	2"	3 x number of men in target zone	3 x number of men in target zone
-12"	2"	2 x number of men in target zone	2 x number of men in target zone
-24"	5"	1 per 2 men in target zone	1 per 2 men in target zone
-30"	6"	1 per 3 men in target zone	1 per 3 men in target zone
-35"	7"	1 per 5 men in target zone	1 per 3 men in target zone
-48"	9"	1 per 10 men in target zone	1 per 10 men in target zone
-60"	12"	1 per 10 men in target zone	1 per 10 men in target zone

76mm Canister/Shrapnel Ammunition			
Range	Target Zone Width	Effect Dice USH-353, 260 Pellets	Effect Dice USH-353, 549 Pellets
4-8"	1"	18 x number of men in target zone	38 x number of men in target zone
-12"	2"	5 x number of men in target zone	9 x number of men in target zone
-20"	5"	1 x number of men in target zone	2 x number of men in target zone
-28"	7"	1 per 2 men in target zone	1 x number of men in target zone
-34"	9"	1 per 3 men in target zone	1 per 2 men in target zone
-44"	11"	1 per 5 men in target zone	1 per 2 men in target zone
-52"	14"	1 per 10 men in target zone	1 per 3 men in target zone
-60"	19"	1 per 10 men in target zone	1 per 5 men in target zone

R20.4. SHRAPNEL

Shrapnel is an ancient weapon harking back to the wars of the 19th century. In WoNS only the 76mm Regimental Gun has a shrapnel shell. Ideally exploding about 25 meters in the air and about 60 meters from its target, it sends - depending on sources - 260 or 549 pellets downrange to savage a 20 x 200 meter area. For spectacular - and real - footage of shrapnel in action see Peter Jackson's recent documentary film *They Shall Not Grow Old*.

Picture from the Soviet 76mm Regimental Gun manual.

Shrapnel may be used on the Chain of Command battlefield using these rules. Shrapnel may only be used by off-table artillery assets.

Designate the aiming point (the middle of the front edge of the target area). If all goes well the target area is 8 x 80".

Shrapnel is unfortunately very tricky to deliver correctly… if the shell bursts too early the pellets will be spread out too much and will not have the desired effect. But if the shell goes long the area of effect will be much diminished and in fact the shell may even hit the ground before bursting

.
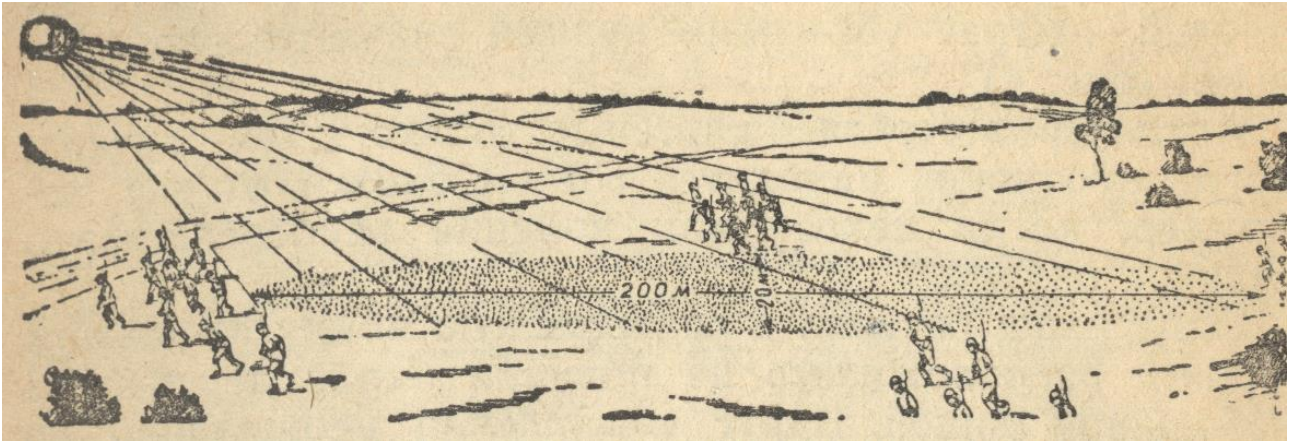
Roll accuracy and determine the location and dimensions of the beaten zone and the number of attack dice using the table below.

76mm Shrapnel Ammunition					
Accuracy Roll 2d6	Range	Target Zone Width x Length	Notes	Effect Dice USH-353, 260 Pellets	Effect Dice USH-353, 549 Pellets
2			Miss	-	-
3	84"	18 x 160"	Target zone moves 12" backward, then deviates 2d6" in random direction.	1 per 10 men in target zone	1 per 10 men in target zone
4	64"	15 x 125"	Target zone moves 8" backward, then deviates 2d6" in random direction.	1 per 10 men in target zone	1 per 5 men in target zone
5	44"	11 x 85"	Target zone moves 4" backward, then deviates 1d6" in random direction.	1 per 5 men in target zone	1 per 2 men in target zone
6-8	24"	8 x 75"		1 per 2 men in target zone	1 x number of men in target zone
9	12"	5 x 57"	Target zone moves 5" forward, then deviates 1d6" in random direction.	1 x number of men in target zone	2 x number of men in target zone
10	4"	4 x 37"	Target zone moves 9" forward, then deviates 2d6" in random direction.	2 x number of men in target zone	4 x number of men in target zone
11	6"	2 x 18"	Target zone moves 11" forward, then deviates 3d6" in random direction.	5 x number of men in target zone	11 x number of men in target zone
12	0	-	Strikes target zone and explodes,	1 (as a 1d6 grenade, reduces cover)	1 (as a 1d6 grenade, reduces cover)

If the aiming point is not moved, then subsequent accuracy rolls may be modified by 1 for each round previously fired. Once the forward observer is satisfied with the way the shrapnel is being delivered, he may hit the same location on subsequent activations without having to roll accuracy.

Count the number of men in the target zone and figure out the number of attack dice. Roll the dice on Hit Table 9.1 as if firing small arms.

Distribute hits normally, among any units within 4" of any part the target zone.

Roll for effect on Effect of Hit table 9.1. Shrapnel does not reduce cover. It also does not damage support weapons or have any effect on the structural integrity of buildings. The maximum number of Kills is the number of men in the target zone. Any additional Kill results are turned into Shock, but the maximum number of Shock caused is twice the number of men in the target zone. Leader hits are handled in the normal manner.

R20.5. SETTING UP

Situations may arise in the campaign where infantry or anti-tank guns must be set-up before being able to engage the enemy. The setting up of guns which are being towed is handled as follows: Each Phase a 1d6 is rolled, on a result of 3-6 the gun is now setup and can be fired or manhandled on the next Phase. A +1 is received for each subsequent Phase of setting up. Note that depending on initial facing, an additional Phase may have to be spent in order to bring the gun to face the correct direction.

The 37mm Infantry Gun model 1915, the *Rosenberg*, at the Estonian War Museum in 2017

R20.6 THE 37MM INFANTRY GUN

There is no evidence that the 37mm infantry gun would have been used in these battles. It is included here because it's a cool piece of kit.

The tiny 37mm Infantry Gun model Rosenberg M/15 is a Russian war-booty weapon from the Finnish Civil War of 1918. It was designed to provide close fire support to the pre-revolution Russian Army. The Finnish Army has ten of them and due to a shortage of real anti-tank guns they have now been designated as provisional anti-tank guns.

Unfortunately for the Finns the obsolete infantry gun is nearly useless for anti-tank work and there are no high-explosive shells. Apparently only AP and APHE shells remain in the Finnish inventory by the time this campaign begins [B20] so no other use could be envisaged. In any case the 37mm HE shell weighed only half a kilogram - about as much as a hand grenade but it had only a quarter of a hand grenade's explosives [B20].

The gun has a traditional breech design and thus has a far slower rate of fire than modern, quick-firing guns.

The Rosenberg is but 160 cm long and weighs only 180 kg. Because of this it can be manhandled over terrain which other 37mm guns could not negotiate, simply by having the gun crew carry it. In CoC such carrying would happen at 1d6 speed with no chance of assuming Tactical stance while at it.

The ammunition notes below are intended to be used with reference to section *R15 General Gun Guidelines*, above.

37mm Infantry Gun Ammunition Use Options		
Shell	**Target**	**Notes**
APHE	Armored vehicle	AP 1
APHE	Anti-tank rocks	Roll d6, on a 6 reroll: On 4-6 a 2" breach has been made in the anti-tank rock barrier
APHE	Infantry behind stone wall	Does not penetrate. Effect 2d6, targets in hard cover
APHE	Infantry in stone house	Does not penetrate. Effect 2d6, targets in hard cover
APHE	Infantry in log bunker	Does not penetrate. Effect 2d6, target in Bunker cover
APHE	Infantry	Effect 2d6, reduces cover by one level
APHE	Infantry in wooden house	Effect 3d6, targets in Open cover
APHE, bounce	Infantry in Tactical stance	2d6, reduces cover by one level, Tactical stance negated

The 37mm Bofors AT gun pictured during the Continuation War. Note that a single horse is sufficient for pulling the gun and limber. The crew is walking, and the lower plates of the gun shield have been folded up during transport (SA-Kuva)

R20.7 THE 37MM BOFORS AT GUN

Proper anti-tank guns are a fairly new invention and the two used in the Winter War are among the best in the world at this time.

The Finnish 3rd Brigade has a number of brand new 37mm Bofors anti-tank guns model 36, some of which feature in this campaign. The Bofors gun can fire right through a T-26 tank - in on one and out the other side. In some later accounts of the Winter War, it is clear that the guns had only armor-piercing rounds but there is no clarity about the situation in the first days of the war. Support options are therefore included for guns armed with and without H.E. shells.

The ammunition notes below are intended to be used with reference to section *R15 General Gun Guidelines*, above.

37mm ATG Ammunition Use Options		
Shell	Target	Notes
AP	Armored vehicle	AP 4
AP	Anti-tank rocks	Roll d6, on a 6 reroll: On a 3-6 a 2" breach has been made in the anti-tank rock barrier
AP	Infantry behind stone wall	Effect 1d6, targets in Open cover
AP	Infantry in stone house	Effect 2d6, targets in Open cover
AP	Infantry in log bunker	Does not penetrate. 2d6, target in Bunker cover
HE	Infantry	Effect 3d6, reduces cover by one level
HE, slow fuse	Infantry in wooden house	Effect 4d6, targets in Open cover
HE, slow fuse, bounce	Infantry in Tactical stance	3d6, reduces cover by one level, Tactical stance negated

R20.8. THE SOVIET 45MM AT GUNS

Developed in co-operation with the Germans, the 45mm anti-tank guns model 1932 and 1937 look very much like the German Pak 36/37. They differ in the model 1932 being only "quarter-automatic" when firing H.E. shells (the spent shell-casing is not automatically ejected), whereas the model 1937 is always semi-automatic. In Chain of Command this makes no difference. As the 142nd Division was formed in 1938 it is likely that they had the 1937 model of the gun.

45mm anti-tank gun model 1937 captured by Finns. SA-Kuva.

The 45mm ATG is well-supplied with different ammunition types. The armor-piercing shell is powerful enough to still pose a mortal danger to German armor in 1942. It contains a very small explosive charge designed to explode on the inside of the target.

In these battles the Russians also used armor-piercing 45mm shells to demolish anti-tank rocks. The 45mm gun was easily accurate enough to target a rock and powerful enough to break it with a single hit.

The H.E. shell weighs about two kilos - four times .

as much as a hand grenade - and packs a punch stronger than 37mm equivalents. The shell can be set to fast or a slow action.

In addition, a canister shot, actually two different types at this point in time, is also available for the 45mm AT gun. It contains 119 or 128 lead-antimony balls each weighing 10.8 grams and turns the ATG into a giant shotgun. It is intended for use against enemy infantry in the open at less than 200-meter ranges [B19, p.429]. Normally only 1d6 rounds of this last-ditch defensive ammunition will be carried

45mm ATG Ammunition Use Options		
Shell	**Target**	**Notes**
AP	Armored vehicle	AP 4
AP	Anti-tank rocks	Roll d6, on a 6 a 2" breach has been made in the anti-tank rock barrier
AP	Infantry behind stone wall	2d6, targets in Open cover
AP	Infantry in stone house	3d6, targets in Open cover
AP	Infantry in log bunker	Does not penetrate. 4d6, target in Bunker cover
HE	Infantry	4d6, reduces cover by one level
HE, slow fuse	Infantry in wooden house	5d6, targets in Open cover
HE, slow fuse, bounce	Infantry in Tactical stance	4d6, reduces cover by one level, Tactical stance negated
Canister	Infantry	See *R20.3 Canister* rules, above

Anti-tank guns may deploy into a building, but they may not be moved in or out of buildings during the game.

R20.9. THE 76MM REGIMENTAL GUN

The 76mm Regimental Gun model 1927 is aptly named because every Red Army regiment had four such guns. They were the sole artillery support the regiment could count on, everything else was decided on higher levels. The regimental guns could be used for direct fire as the regiment's commander chose. Their roles included anti-tank, bunker suppressing and eradication of defensive field works [B22].
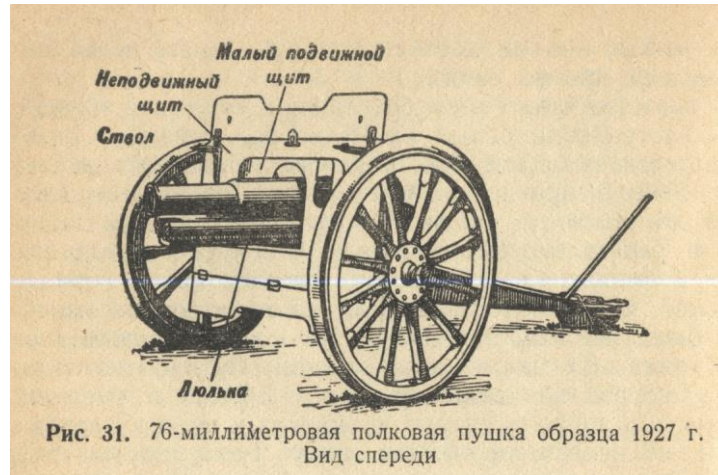
The 76mm Regimental Gun model 1927. This is the horse-drawn version. Picture from the gun's Soviet manual.

There were, broadly speaking, two versions of the gun, one horse-drawn and the other vehicle-drawn. Both versions had two caissons, the one attached to the gun transporting 24 76mm rounds and the separate ammunition caisson carrying 56. A total of eight horses were used to pull the gun and caissons [B22].
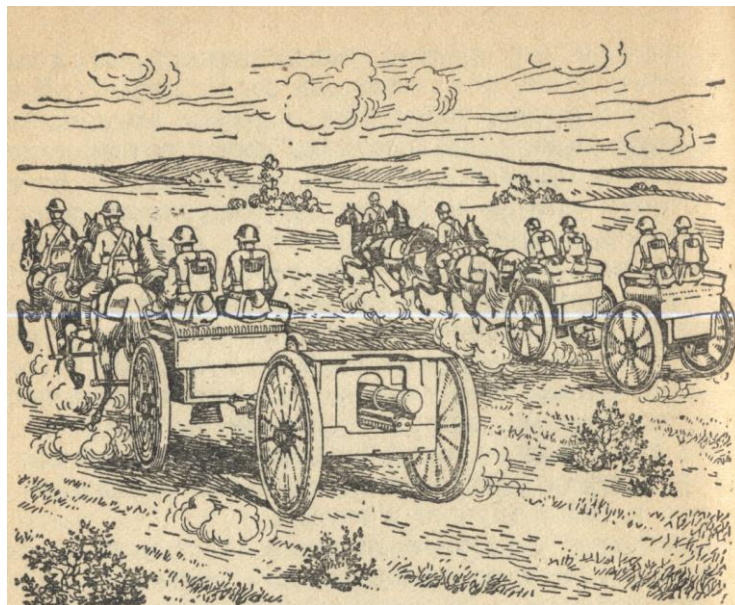
The regimental gun benefited from a multitude of ammunition types and would get more as WWII progressed. The armor-piercing shell was modest in its performance due to the limited muzzle velocity of the short barrel. All manner of high-explosive shells were used with the gun.

A cast-iron smoke shell also existed but its availability in the Winter War is not known to this author, and it is suggested that it not be used in this campaign (see R23.2. *Smoke Ammunition*).

Regimental guns were also supplied with 76mm Canister and Shrapnel ammunition (actually they

are the same round, USH-353). Described variously as having 260 or 549 pellets, this is a weapon intended for use against infantry out in the open. When shot as canister, the shell explodes ten meters after exiting the gun barrel,

sending a flurry of pellets downrange. See *R20.3 Canister*, above. When shot as shrapnel, the shell is set to explode closer to the target but higher in the air. See *R20.4 Shrapnel*.
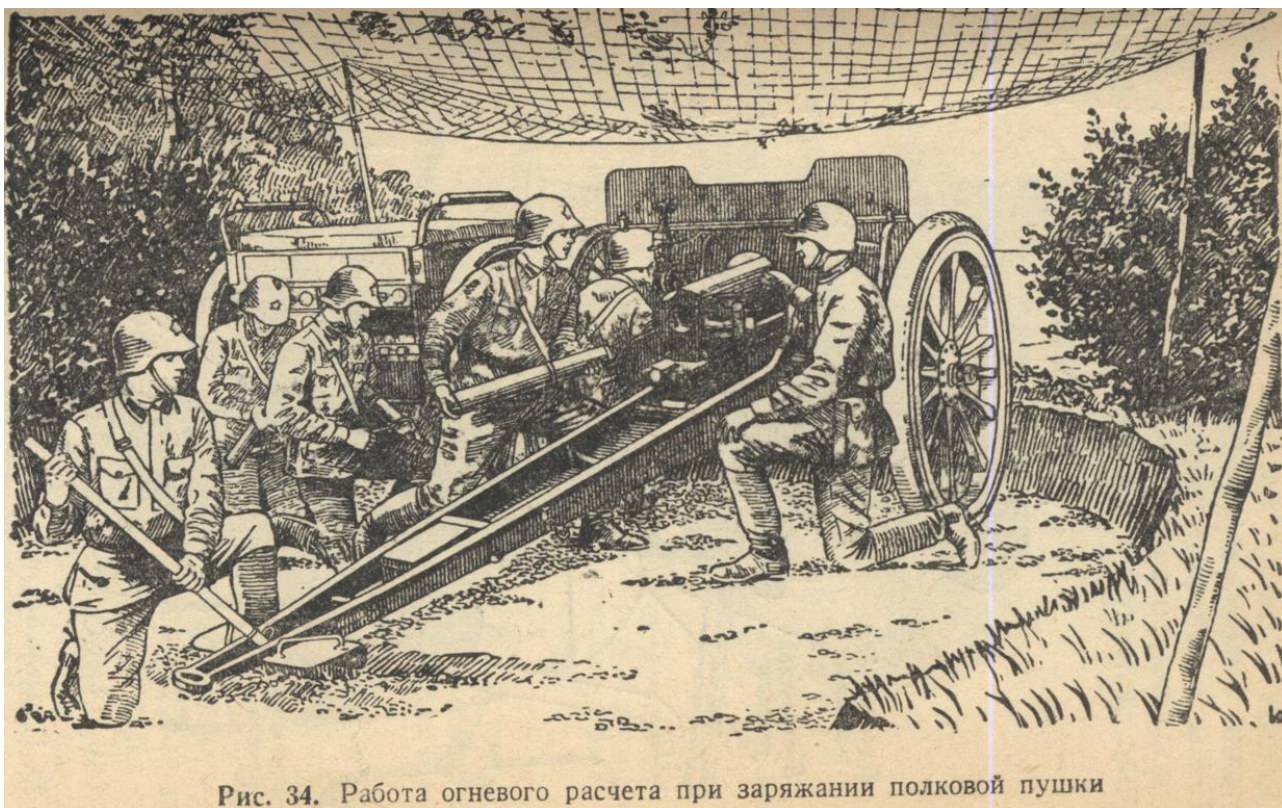
Рис. 34. Работа огневого расчета при заряжании полковой пушки

76mm Regimental Gun Ammunition Use Options		
Shell	**Target**	**Notes**
AP	Armored vehicle	AP 4
HE	Infantry	Effect 6d6, reduces cover by one level
HE, slow fuse	Infantry behind stone wall	Effect 6d6, targets in Open cover
HE, slow fuse	Infantry in stone house	Effect 7d6, targets in Open cover
HE, slow fuse	Infantry in log bunker	Does not penetrate. 6d6, target in Bunker cover
HE, slow fuse	Infantry in wooden house	Effect 7d6, targets in Open cover
HE, slow fuse, bounce	Infantry in Tactical stance	Effect 6d6, reduces cover by one level, Tactical stance negated
HE, slow fuse	Anti-tank rocks	Roll d6, on a 5-6 a 2" breach has been made in the anti-tank rock barrier
Canister	Infantry	See *R20.3 Canister* rules, above
Shrapnel	Infantry	See *R20.4 Shrapnel* rules, above

Infantry guns may deploy into a building but may not be moved in or out of buildings during a Battle.

Infantry and field guns may be manhandled by their crews.

R20.10. THE SOVIET 37MM ANTI-AIRCRAFT GUN MODEL 1939

The Soviet 37mm AA gun is a close relative of the 40mm Bofors AA gun used by many nations during WWII.

AA guns may deploy into a building but may not be moved in or out of buildings during the Battle.

AA guns may be manhandled by their crews and the 37mm AA gun is counted as a Medium Gun for purposes of manhandling. Set-up of towed AA guns is handled as follows: On each Activation a 1d6 is rolled, on a result of 6 the gun is now setup and can be fired or manhandled on the next Phase.

A +1 is received for each subsequent Phase of setting up. The gun may also be used for direct fire in towed mode, with a -1 to hit.

AA guns have a 360° arc of fire. They are able to engage a target anywhere within the arc without spending extra time on turning.

The 37mm AA gun needs at least a three-man crew to function effectively (one handles elevation, the other the rotation of the gun, a third acts as loader).

R22. GENERAL TANKS, ARMORED CARS AND OTHER VEHICLES RULES

Several types of tanks and armored cars are available to the Soviet player. Finnish after-action reports mention no armored cars and while tanks are heavily present in them there is often no differentiation between tank types other than the number of turrets which are reported in comments to one war diary. We do however know which types of vehicles the various units operating in the area fielded. Where applicable, the rules in this section are applicable to both tank and armored car platoons.

Though all these vehicles are equipped with the same DT LMGs I have in the Arsenal Table differentiated between those fired with a loader (6 Firepower, in the T-26 models 1933-39, and the turret LMGs of heavy armored cars) and those fired and loaded by the gunner (4 Firepower, in T-26 model 1931 and all the tankettes and armored cars). A typical armored vehicle would also be equipped with perhaps six hand grenades for close defense.

In *Chain of Command* tank machine-guns cannot be used for covering (suppressive) fire. Because the suppressive use of tank MG fire was very common in WWII, it is suggested that in WoNS tank machine-guns can be used for covering fire.

Soviet armored platoons consisted of three light tanks or five amphibious tanks of armored cars during this period. The platoon leader is Senior Leader, and the other tanks are commanded by

Junior Leaders (NCO equivalents).

Some Platoon leader tanks are equipped with radios so that they may receive orders from the tank company commander, but the line tanks do not have radios. The platoon leader will only be able to issue verbal commands to his underlings if within command distance AND both he and the commander of the other tank are exposed.

A tank platoon Senior Leader can use one command initiative to activate a crew station in another tank in his platoon within line of sight, provided he is within the other tanks main gun arc of fire and also activates the same crew station in his own tank. This represents the tanks following the example of their leader rather than being more precisely led over a radio net.

In addition, the platoon leader may use flag signals. Only Leaders in vehicles may issue flag signals. A Senior Leader using flags may, for one command initiative, activate another vehicle under his command within 18" and LoS and which has otherwise not been activated in this Phase. In CoC this activation process is equivalent to that done by radio). Because flag signals are difficult to spot and interpret, the order will be ignored on 1-3 on 1d6. Flag signals cannot be used during Darkness, even if the battlefield is illuminated. Shock cannot be rallied from any Unit by flag signals, nor may they be placed on Overwatch or get them to put down Covering Fire.

Tank riders: The T-26 could physically carry up to

ten men on its decks and the smaller tanks correspondingly fewer. However, the tank *desant* tactics which would be made famous later in WWII were generally not employed in the Winter War. It is therefore suggested that armored vehicles cannot be used to transport infantry assets in these early battles.

In CoC tanks are able to capture jump off points. However historically Soviet tanks would often drive right into and through Finnish positions because the Finns had no anti-tank weapons to destroy them. Meanwhile the tanks' accompanying infantry were decimated by machine gun fire and halted. After driving for a while up and down the Finnish lines or even staying for a while in the Finnish rear areas the tanks often had no choice but to return back to the Soviet lines. To simulate this in WoNS tanks can only capture one Finnish jump off point per scenario.

The T-26 model 1931

R22.1 The T-26 Light Tank Family

A licensed copy of a British Vickers company product, this is a light and relatively slow tank intended for infantry support. These are the general T-26 rules. Specific models are dealt with in subsections below.

Most versions of the T-26 have pistol ports on the sides of their turrets. These are small round holes, typically underneath a vision port. The ports have armored plugs which the crew may remove and then engage with their revolvers any close-range enemies.

All versions of the T-26 have a large headlight right in front of the hull superstructure. This allows night driving and also use of the tank's weapons against targets in front of the vehicle (see *R5. Night Fighting*, above).

A platoon of T-26 tanks consists of three vehicles. It seems that in many cases different models of the T-26 could be mixed in a platoon [B15, p. 102].

The 445th Special Tank Battalion of the 142th Infantry Division operated nine T-26, six T-37 and ten T-38 tanks [B15, p. 106]. The Red Army will lose some 1170 T-26 tanks during the 105-day Winter War [B23, p. 33].

R22.1.1 The T-26 Model 1931 (T-26A)

This is a light tank intended for infantry support. It is equipped with two independent turrets, each with one DT MG.

It has a three-man crew with the tank commander being the gunner of the right-hand side turret. Each gunner loads his own machine gun and this is

reflected in the rate of fire.

R22.1.2 The T-26 Model 1932 (T-26A with 37mm gun)

This is a light tank intended for infantry support. It is equipped with two turrets, the left hand side with one DT MG, the other with a 37mm gun.

It has a three-man crew, and the tank commander is the 37mm gunner in the right hand side turret. When firing the main gun, the tank commander acts as both the gunner and the loader.

Rules for one-man turrets are included in the *Blitzkrieg 1940 Handbook*. If you do not have that book you can assume that the tank commander must spend two Command initiatives to use the main gun (one to load, the other to fire the gun).

R22.1.3 The T-26 Models 1933-1940, T-26-1 (T-26B, T-26C)

This is a light tank intended for infantry support with one high-performance 45mm tank gun and a coaxial DT MG in a turret. There are a number of different turret and hull designs depending on year of manufacture, but all are similar in CoC terms.
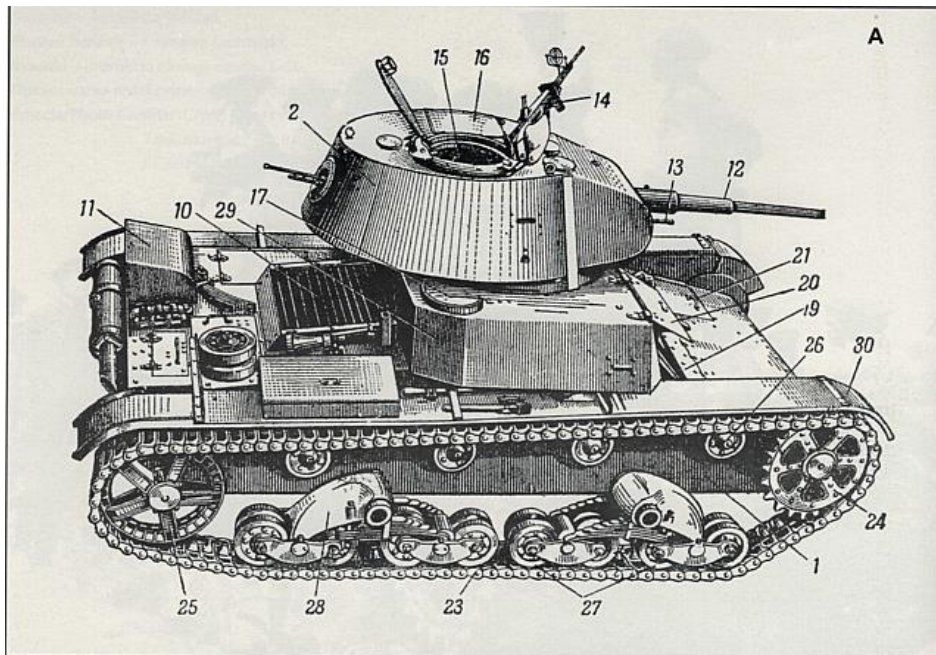
The T-26-1 of 1939 manufacture, sometimes known as the model 1939 or T-26S. This version features improved hull and turret armor layout and an armament of 45mm gun and three machine guns. The gunner's periscope is hidden behind the DT LMG on anti-aircraft mount. There is no periscope for the loader so presumably the gunner acts as vehicle commander. Note also the round pistol port on the side of the turret beneath the vision slit. Picture from a Soviet manual.

Some of the following features may be available in your T-26 tank. It is suggested that you look at your model and try to determine which features are present.

It has a three-man crew with the tank commander being either the gunner (on left side of turret) or the loader (on right side of the turret), this can be determined by examining the periscopes on top of the turret – the one having the periscope is the tank commander. In tanks where both turret crew members have periscopes the commander is assumed to be the gunner. The tank commander's periscope has 2.5x magnification [B24].

Rules for two-man turrets are included in the

Blitzkrieg 1940 Handbook. If you do not have that book you can assume the following:

When the Tank Commander IS ALSO the Loader, he must spend one of his Command initiatives reloading the main gun whenever it is used.

Where the Tank Commander is NOT the Loader the Loader is assumed to automatically load the gun without being separately Activated.

The T-26 has the same ammunition options as the 45mm ATG apart from the canister shot which is not available. Refer to the 45mm Anti-Tank Gun section for notes on their use.

Winter of No Surrender - Optional Rules v.2.41
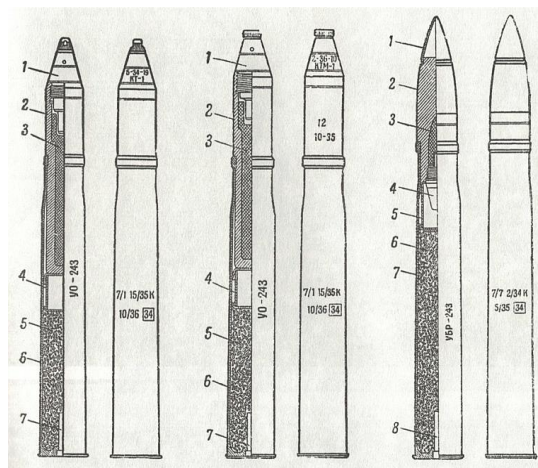
45mm ammunition: HE shell with fuse KT-1, the same with KTM-1 and an armor-piercing round. Picture from a T-26 manual.

For close-in defense the tank is equipped with pistol firing ports on both sides of the turret.

The DT machine gun was typically fitted with tracer ammunition. Incendiary ammunition could also be used [B25, p.9].

Some models of the T-26 e.g. those manufactured in 1939 feature a rearward-firing DT machine gun located in the rear of the turret. This allows firing towards enemies in the rear without having to turn the turret (CoC section 11.8).
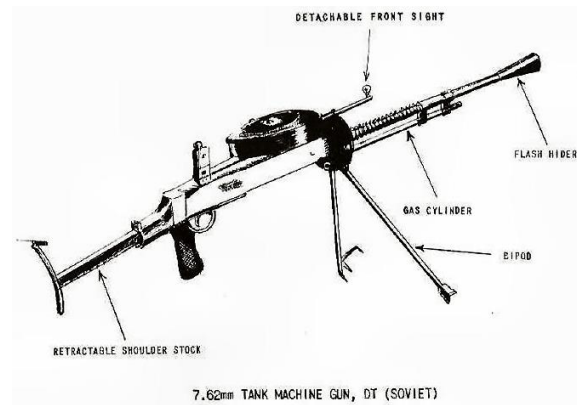
Some versions of the T-26 may also sport an anti-aircraft LMG mounted in front of the loader's hatch. This makes it possible to fire two LMGs simultaneously if the loader exposes himself but the gunner's LMG must then be downgraded to a firepower of 4. The AA LMG may also be used against any Finnish aircraft.

Some versions of the T-26 are equipped with two

big headlights on top of the 45mm gun. This allows the night-time use of the turret weapons in any direction (see *R5 Night Fighting*, above).

Until 1939 tanks equipped with a radio are easily distinguished by the tubular radio antenna encircling the turret. From model year 1939 the command tanks are equipped with a more modern whip antenna.

R22.1.4 The KHt-26 (OT-26, XT-26) Flamethrower Tank

Based on the two-turret T-26 model 1931, the KHt-26 is a chemical tank capable of smoke-laying, toxic gas dispensing and flame-throwing but was only used as a flamethrower tank in the Winter War.

It has a two-man crew with the tank commander acting as flamethrower operator. The flamethrower has a range of some 30-40 meters [B15, p. 41]. Flamethrowers are very powerful weapons in Chain of Command. To tone them down a bit, it is suggested that they should not be used against moving targets (targets which moved during their last phase).

The 35th Light Tank Brigade operated ten Kht-26 tanks [B15, p. 99]. No flamethrowers (tanks or infantry) are mentioned in any Finnish sources on these battles but at least one Russian source refers to them.

R22.1.5 The KHt-130 (OT-130, XT-130) Flamethrower Tank

The KHt-130 is a chemical tank similar to the earlier KHt-26. It is capable of smoke-laying, toxic gas dispensing and flame-throwing, but was only used as a flamethrower tank in the Winter War.

It has a two-man crew with the tank commander acting as flamethrower operator. The flamethrower has a range of some 50 meters. Flamethrowers are very powerful weapons in Chain of Command. To tone them down a bit, it is suggested that they should not be used against moving targets (targets which moved during their last phase).

There is no proof of KHt-130 chemical tanks being used in these battles, but the vehicle is included here because many players will have such miniatures in their armies.

A captured KHt-130 (OT-130) Chemical Tank

R22.1.6 The ST-26 Engineer Tank

Based on the T-26 infantry support tank, the ST-26 can be equipped with a variety of devices, including a mine plow, a mine sweep, a snowplow and a mobile bridge.

It has a DT machinegun in the turret and two-man crew with the tank commander being device operator and gunner.

The mine plow is used against infantry and anti-tank mines and can clear two half-meter wide paths through a minefield. The mine sweep is pulled behind the tank and clears one tank-wide path for infantry. The snowplow is used in Deep Snow conditions to enable movement by wheeled motor/horse-drawn vehicles.

A destroyed T-26 model 1933. On the left, a mine sweep. SA-kuva.

The seven-meter-long mobile bridge can span ditches and streams and enable vehicles to cross them. Deploying the bridge takes between 25 and 40 seconds and is accomplished by activating the bridge tank at the location where the bridge is needed. For each Phase when the bridge tank is activated roll d6, on a 6 the bridge has been successfully deployed. Removal of the bridge uses the same procedure. The bridge can be deployed without the crew being exposed, but during retrieval the commander must run out from the tank onto the other side of the bridge and spend a whole Command initiative there attaching cables. Then he must run back into his tank before he can begin removing the bridge. During the process of deploying or removing the bridge the commander is unable to use his machine gun, his attention being required to operate winches etc.

The ST-26 can use its machine gun to protect itself. The tank is however there for a specific task such as mine removal or bridge laying and should be played accordingly, i.e. the bridge tank should not turn into an assault tank after deploying the bridge.

The 35th Light Tank Brigade is known to have operated three ST-26 tanks during these battles [B15, p. 99].

The ST-26 Engineer Tank, here fitted with the mobile bridge

R22.2 The T-27 Tankette

A report issued in the morning of December 1st lists the T-27 tankette as one of encountered enemy tank types. And it is a really cute little piece of equipment.

T-27 tanks captured during the Continuation War (SA-Kuva).

Weighing less than three tons, the T-27 is a primitive tankette based on the British Loyd-Carden design. It has a crew of two, with the tank commander acting as gunner for the DT LMG installed in the front hull superstructure.

Deep Snow conditions: These tankettes have very narrow tracks and have considerable problems in deep snow. In Deep Snow conditions any Broken Ground is considered Heavy Going.

R22.3 The T-37A and T-38 Amphibious Tankettes

These are basically tiny amphibious tankettes with a machine gun in a turret, intended to provide fire support during river crossings and the like. They have crews of two, the driver and the commander who is also the machine gunner. They use the same rules as the T-26, above, with the following amendments:

Deep Snow conditions: These tankettes have very narrow tracks and have considerable problems in deep snow. In Deep Snow conditions any Broken Ground is considered Heavy Going.

Amphibious operations: Driving into a river or lake in Finland usually involves going down a steep descent down a bank and is considered Heavy Going with the total rolled on the dice indicating the distance moved in inches (with any sixes being discarded) and becoming stuck on any roll of doubles. Once in the water the tank never fires its machine gun with more than half dice even if immobile. Equipped with a propeller and rudder, the tank moves 1d6 inches (with any sixes being discarded) in water and may be affected by any current. Disembarking from the water requires climbing up the bank which is successful on a d6 roll of 4-6 and takes an entire Command Initiative. On a roll of 1 the tank becomes stuck for the rest of the scenario. While climbing up the bank the tank will expose its belly to any enemy who is in Opportunity Fire or Ambush mode.

The 445th Special Tank Battalion of the 142th Infantry Division fielded nine T-26, six T-37 and ten T-38 tanks [B15, p. 106].
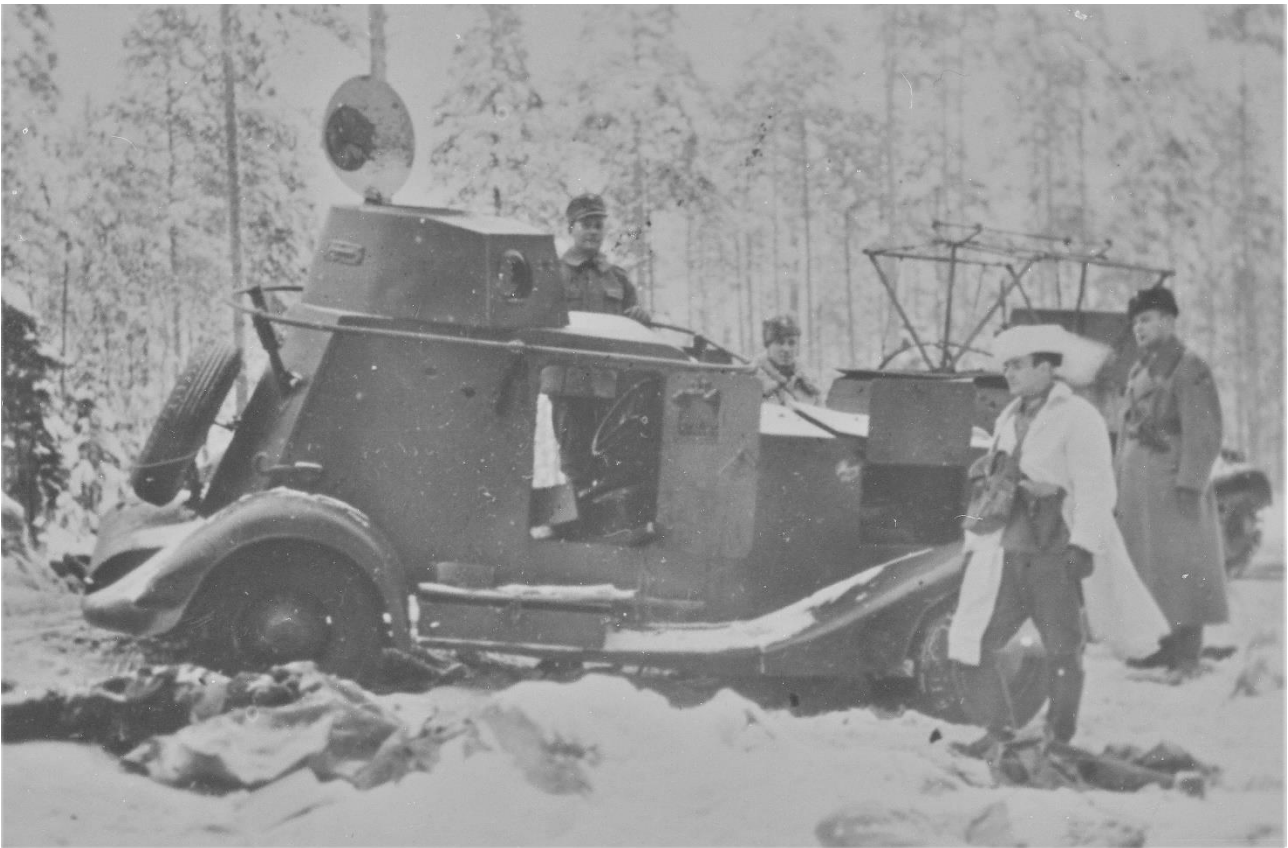
An early-type BA-20 armored car with tubular radio antenna captured at the battle of Tolvajärvi. Behind it is a T-20 Komsomolyets tractor. The officers looking at the vehicle display a variety of uniforms including what looks like a very makeshift white-over (SA-Kuva)

R22.4 Light Armored Cars

These are early armored cars based on army command cars which are themselves based on civilian ones. In game terms FAI and BA-20 are more or less equal, both having a two-man crew, weak armor and a single DT machine gun in a turret. In addition, there are hand grenades and pistol ports. The BA-20 features an escape hatch below the fighting compartment floor [B26, p. 35].

The light armored cars are equipped with bullet-resistant tires. Intended for reconnaissance, their conventional rear wheel drive and slippery road tires restrict them to road use only in this campaign, even though the BA-20 is a better off-road vehicle than its predecessor.

The FAI and FAI-M are not equipped with a radio [B26, p. 25] while it is standard on the BA-20 [B26, p. 33]. Early BA-20s have a tubular antenna but later ones and all BA-20Ms have the more modern whip antenna [B26, p. 37]. Command BA-20s and all BA-20Ms also carry a third crew member, a radio operator [B26, p. 37].

While there is no evidence of any light armored cars being used in these battles, fifteen armored cars were part of every infantry division. In addition, about 4 km to the west of the locations depicted here the 1st Light Tank Brigade fielded 178 tanks and 23 armored cars: 6 BT-7A, 83 BT-5, 82 BT-2, 7 T-26, 18 BA-10 and 5 BA-20 [B15, p.89].

A BA-10 armored car fitted with the optional half-tracks over the rear wheels (SA-Kuva).

R22.5 Heavy Armored Cars

The BA-27M, BA-3, BA-6 and BA-10 are all heavy armored cars on truck chassis. The BA-27M was already outdated by the time the Winter War began. Only two of them were used in the entire war, both by the 177th Separate Reconnaissance Battalion.

The BA-27M has a one-man turret taken from the even more primitive T-18 tank with a 37mm gun and a separate DT machine gun. Because of the design, when on overwatch the gunner must choose one of the two weapons to overwatch with, and the other one may not be used if overwatch is triggered. The 37mm gun has 40 shells of ammunition, probably about 30 of which are HE. The BA-27M has no radio, but its tires are bulletproof [B26, p. xx].

BA-3, BA-6 and BA-10 all have good armor and a four-man crew handling the 45mm tank gun and two DT machine guns, one in the front superstructure and the other in the turret. While these armored cars have the armament of a light tank, far fewer main gun rounds are carried, for example the BA-3 only carries forty of them, a quarter of the rounds carried on a T-26 [B26, p. 120].

The 4x6 truck chassis gives the heavy armored car better mobility which is further enhanced by the option of installing the "overall" track fitted over the rear tires which makes the vehicle a half-track of sorts.

The BA-3 does not have a radio [B26, p. 120]. The armored superstructure has a handy access door at the rear of the vehicle. The BA-3's tires are generally of the ordinary truck tire type.

The BA-6 has better armor, increases the number of 45mm rounds carried to sixty and adds "bullet proof" GK combat tires but the handy rear door is no longer there, its space being taken by the extra rounds carried.

The BA-10 has a smaller turret and therefore carries only 43 rounds for the 45mm gun. A radio is fitted as standard [B26, p. 145]. The BA-10M adds more fuel.

About 4 km to the west of the battles depicted here, the 1st Light Tank Brigade had 178 tanks and 23 armored cars: 6 BT-7A, 83 BT-5, 82 BT-2, 7 T-26, 18 BA-10 and 5 BA-20 [B15, p.89].

R22.6 The BT Fast Tank Family

In the 1930s the Red Army had a theory of "deep offensive operations" where large, armored formations would penetrate enemy defenses and then roam around in the enemy rear, wreaking havoc [B92]. Combined with the vast size of the Soviet Union, the strategy demanded the quick movement of armored forces and for this the slow-moving regular infantry tanks the Red Army had were not suitable. A fast tank was needed, and the chosen solution was the BT, an unlicensed copy of the American Christie tank which Walter Christie, having failed to sell his design to anyone else, illegally exported into the USSR.

Unlike the T-26 which had a 90-horsepower engine, the BT boasted a powerful 400 hp aircraft engine and an advanced suspension which would later turn up in the T-34. What is more, the BT could operate either on tracks or wheels, with a top speed of around 52 or 72 km/h, respectively. This incredible level of performance was exploited in numerous Soviet propaganda films and photos showing literally flying tanks.

In the event, the Soviet strategy of deep offensive was soon discarded and the officers in favor if it were purged. But the BT tanks soldiered on as infantry tanks until the end of WWII.

The BT-7 makes an appearance in WoNS Campaign Two *Defiance on the Huhti Road* after the 13th Tank Brigade is committed to action. BT tanks of several different versions fielded by the 1st Light Tank Brigade feature prominently in Campaign Three *The Gates of Rautu*. These are the general BT tank rules. Specific models are dealt with in subsections below.

Most versions of the BT have pistol ports on the sides of their turrets. These are small round holes, typically underneath a vision port. The ports have armored plugs which the crew may remove and then engage with their revolvers any close-range enemies.

All versions of the BT have headlights in the front of hull superstructure. This allows night driving and use of the tank's weapons against targets in front of the vehicle (see *R5. Night Fighting*, above). Some versions of the BT also have turret lights.

The BT tanks suffered from slippery tracks and their tendency come off at inappropriate moments.

Slippery Tracks: BT tanks crossing solid obstacles must do so at fast speed but will discard the lower dice rolled. If they roll a double *OR if one die is a 1 and the other a 6*, they will become temporarily immobilized. On subsequent activations of the driver, they will roll a D6, freeing themselves on a roll of 5 or 6 and moving that far in inches. However, a roll of 1 *OR 2* will mean that they are permanently immobilized.

The BT is capable of operating both on tracks and as a wheeled vehicle. The change takes around 30 minutes so it cannot be done during a game. Due to high ground pressure and the fact that only one pair of wheels is providing power, the tank cannot leave the road when operating as a wheeled vehicle. In addition, if the road is covered with snow the tank becomes *temporarily immobilized* if a double is rolled on any movement roll.

A platoon of BT tanks consists of three vehicles. It seems that sometimes different models of the BT tank could be mixed in a platoon.

The 13th Tank Brigade had 246 BT-7 and 10 T-26 tanks when it was sent to break the resistance of the Finnish 6th Independent Battalion [B15, p.92]. The 1st Light Tank Brigade fielded 178 tanks and 23 armored cars: 6 BT-7A, 83 BT-5, 82 BT-2, 7 T-26, 18 BA-10 and 5 BA-20 [B15, p.89].

R22.6.1 The BT-2

This is a light tank intended for infantry support. It was manufactured from 1932 to 1933.

The initial batch of 60 BT-2 tanks was equipped with only 37mm guns and no machineguns at all [B92]. A second batch of 148 tanks was intended to be produced with the DT LMG in a separate ball mount, operated by the loader.

Due to 37mm gun production difficulties, more than half of all BT-2 tanks had an installation of DA-2 (dual DT machinegun mount) in place of the cannon [B92]. Some in fact had yet a third DT LMG in a separate ball mount.

Regardless of armament, the BT-2 always has a crew of two, with the tank commander acting as gunner and loader [B92]. The BT-2 has no provision for a radio.

Many early BT-2 and BT-5 tanks were equipped with US-manufactured Liberty aircraft engines, 2000 of which were purchased by the USSR. The Liberty engines were prone to catch fire [B92]. The Finns who captured such tanks understandably felt that the name Liberty was very inappropriate, considering why the Russians were in Finland…

The 1st Light Tank Brigade had 82 BT-2 tanks. Six tanks were reported lost in the fighting (four burned, two sunk) [B92]. Reportedly many BT-2 tanks suffered from technical problems during the Winter War and had to be taken back to the factory for an overhaul [B92].

R22.6.2 The BT-5

The BT-5 is an improved version of the BT-2 with a 45mm main gun and a coaxial DT LMG in a new turret. Other improvements include an intercom and the provision for a radio. It was manufactured from 1933 to 1937.

The BT-5 has a crew of three, with the tank commander acting as loader and radio operator [B93]. Only command tanks have radios.

The 1st Light Tank Brigade had 83 BT-5 tanks. A total 52 BT-5 tanks were reported to have been irrevocably lost by the Red Army during the Winter War [B93].

R22.6.3 The BT-7

The BT-7 is an improved version of the BT-5. It has a new welded hull superstructure and a better engine. It was manufactured from 1935 to 1941 in several versions.

The model 1935 had the new hull layout with 13mm armor and a new engine but retained the BT-5 turret and 45mm 20-K model 1934 main gun and coaxial DT LMG. Some turrets had also a rear-firing DT LMG, and sometimes a third DT on an anti-aircraft mount.

The model 1937 boasted a new, conical turret and additional ammunition. In addition, hull armor was increased to 22mm. An improved 45mm gun which is semi-automatic using all types of ammunition was introduced during the production run. Many tanks also had lights mounted on the gun mantle for night fighting. 44% of BT-7 tanks

produced had radios [B94]. If not fitted with a radio, some turrets had also a rear-firing DT LMG. and sometimes a third DT on a P-40 anti-aircraft mount.

The BT-7M was produced from December 1939 onwards. It had a new Diesel engine with even higher performance than the previous gasoline engines. Almost 25% or BT-7Ms were fitted with radios. It is unclear whether any BT-7M reached the Winter War.

The BT-7 has a crew of three, with the tank commander acting as gunner [B94]. Only command tanks have radios.

A total 123 BT-7 tanks were reported to have been irrevocably lost by the Red Army during the Winter War [B94].

R22.6.4 The BT-7A

The BT-7A is the *artillery version* of the BT-7. It fitted with the tank version of a 76mm infantry gun

in a new turret borrowed from the T-26-4 artillery tank, it is intended to be used as a direct-firing

support weapon platform. 134 BT-7A were manufactured from 1936 until 1938, 11 of which were configured as command tanks with a radio [B95].

In principle, the 76mm KT cannon can fire all types of ammunition available to the 76mm regimental gun. In practice it is unlikely that all ammunition types were supplied to the units.

The BT-7A is equipped with a DT machinegun in a separate ball mount, operated by the loader. The machinegun cannot be used during the same Phase as the main gun, as the loader is busy loading the gun. In addition, tanks without radios have a rear-firing DT LMG in the turret bustle. Because enemy aircraft may be encountered, a third DT is often installed on the P-40 anti-aircraft mount.

The BT-7 has a crew of three [B95].

The 1st Light Tank Battalion had six BT-7A tanks, all of which were damaged during the war, four by "artillery" (presumably including anti-tank artillery), and two suffering mine damage [B95]. The BT-7A was found to be useful as a bunker-buster, and even as a counter-battery weapon system [B95].

R22.7 General Aerosan Rules

Aerosans (or aerosani, also called aerosleds, and various other names) are fast and light, airplane-engine-propelled vehicles on skis. Aerosans are almost as old an invention as airplanes, the first being built in the very beginning of the 20th century. By WWII the Soviet Union was a leading nation in the development of Aerosans.

Aerosans are "Wheeled" vehicles and as such may move when deploying. They do not bog in soft terrain and cannot enter forests. They get a bonus of 2" per die when moving on lake or sea ice only, no bonus on any other surface.

In a downhill they get +1d6 movement. In an uphill they slow down by 1d6 per phase until they are down to 1d6 movement.

They are not very maneuverable. They move first and only then turn max 90 degrees after moving. (thanks Richard Humble). If they end up in a wooded terrain feature due to this, they will become temporarily immobilized.

Aerosans cannot reverse. If a combat result indicates that they would be forced to reverse, they get one additional shock instead.
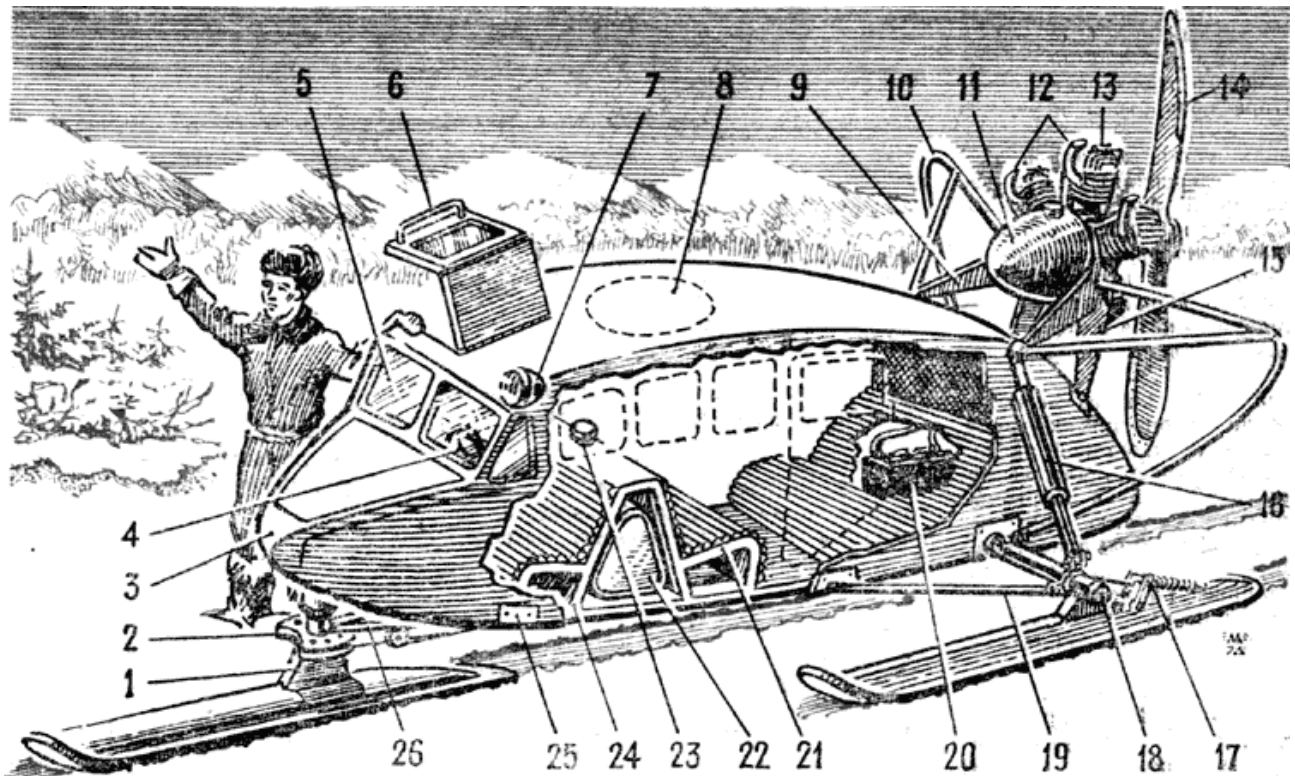
R22.7.1 OSGA/NKL-6

First designed in around 1932 and then put into serial production in 1934 by the Prototype Aerosan Construction Bureau, the OSGA/NKL-6/ NKL-16 was a three-ski, four-seater aerosan intended for civilian and military use in arid environments and iced-over waterways [B87, p.6]. It was intended for the transportation of people, supplies and equipment.

This is an unarmored transport Aerosan. The aerosans were built by the Wood Boatbuilding Organization *Lessudomashstroi* [B87, p.6] out of plywood and used old 90-100 hp M-11 radial aircraft engines which had been removed from airframes after accumulating too many hours, and the propeller from the U-2 (PO-2) observation aircraft [B87, p.24].

The NKL-6 was continuously being updated and developed and was after a few years confusingly re-designated as the NKL-16 model 1937. Unlike the later NKL-16 models, the model 1937 is a three-ski, bullet-nosed aerosan practically indistinguishable from OSGA-6 and NKL-6. In contrast the NKL-16/41, NKL-16/42 and NKL-16/43 are four-skied, blunt-nosed vehicles. As far as this

author knows, there were no aerosans with four skis in the Winter War.

Often a tourelle with a DT LMG was installed on top of the vehicle. There was also an ambulance version. Sometimes the ambulance versions were also armed in defiance of the Geneva Convention rules.
Armament: DT LMG 6d6 (or 4d6 as it does not have a loader), hand grenades

OSGA/NKL-6/NKL-16 was capable of transporting one driver-mechanic, and five passengers who all entered and exited from the vehicle via the left-hand side door. In addition, pictures sometimes show additional soldiers standing on the skis and clinging onto the hull of the aerosan. Therefore, up to three more men may be transported in this fashion.

The aerosan is also able to pull up to 20 troops and their equipment on skis [B87, p.23]. Any heavy equipment such as LMGs, MMGs and mortars may be placed in *volokushkie* sleds and pulled by the aerosan [B87, p.55]. Maximum speed is 2d6 while towing anything.

An aerosan needed 10-12 cm of snow cover in order to be operated safely. could also be used on a road or in the fields but Finnish roads were too narrow and winding for aerosans [B88]. In areas where there were lots of trees or rocks the likelihood of ski and propeller breakage grew very quickly [B88]. Many aerosans carried spare propellers and skis for this reason.

The Red Army was very satisfied by the performance of these vehicles on ice during the Winter War [B88]. They were also used for the transporting of supplies, casualties and both assault and desant troops [B88].

Size: Small. Support cost: 3

R23. ARTILLERY AND MORTAR BARRAGES

Pre-game barrages are the only use for indirect-fire artillery in plain-vanilla Chain of Command. Only mortar barrages are allowed on the actual game table. This makes sense because the danger-close distances of artillery were usually greater than the distances represented on the table.

In CoC pre-game barrages – whether fired by guns, howitzers or mortars - are a nuisance preventing one's troops from deploying. In practice this makes even well-led troops to deploy only on a roll of 4-6 on 1d6. Soviet pre-game barrages in addition are ruled to be so heavy that deployment only

happens on a 5-6. Whatever the caliber or rate of fire or type of ammunition, pre-game barrages do not damage any people or fortifications in CoC.

However, in real life the danger of being annihilated by any artillery barrage was very real. It has been estimated that on the Taipale front the Soviets could amass as many as forty to fifty guns per front kilometer and that they could deliver about 800 kg of shells onto that area in a single minute [B27, p.225]. In WoNS therefore we must allow for the Pre-Game Barrages to be potentially deadly and possibly damage structures as well.

R23.1 ARTILLERY AND MORTAR RESOLUTION PROCEDURE

An expanded artillery procedure is hereby proposed:

- Determine if either side is eligible to call for an artillery barrage
- Determine if artillery support is available
- Determine if barrage is on target
- Resolve effects of barrage on target area:
  - Direct hits on personnel, support weapons, vehicles, entrenchments
  - Deployment roll effects

R23.1.1 SOVIET ARTILLERY

Red Army artillery of the period was a devastating but very inflexible instrument. A barrage would be planned and fired according to a schedule, only rarely was there any in-combat communication between the artillery forward-observer and the troops being supported.

The Red Army is unable to provide dynamic

artillery support in response to changing battlefield situations. This means that Soviet barrages can be obtained as Support Options only if assaulting a previously known enemy position AND at least four Hours have passed since the enemies were first detected there. Note that the Soviet *Reconnaissance Flight, Cavalry Reconnaissance* and *Infantry Reconnaissance*

Campaign Cards could be used to gain such information.

Soviet barrages are all pre-planned and last for one Turn. They cannot be extended by using CoC dice. The Soviet player may however purchase as many Turns worth of artillery barrages as Support Options as he wants but their use must be plotted prior to the beginning of the scenario, i.e. Two barrages, one on Turn One, and a second on Turn Three. Only one barrage may be fired per Turn.

Soviet artillery fire does not require a Forward Observer on table.

SOVIET ARTILLERY PROCEDURE	
Step	**Action**
Requirements	• Position of enemy forces to be targeted must be known (spotted) at least four hours before fire request is made • The forces to be targeted need not be in the current battle location but may instead be anywhere • The barrage must be obtained using support points
Fire Requests	All fire requests must be plotted prior to the beginning of the battle. The Soviet player may however purchase as many Turns worth of artillery barrages as Support Options as he wants but their use must be plotted prior to the beginning of the scenario, i.e. Two barrages, one on Turn One, and a second on Turn Three. Only one barrage may be fired per Turn.
Availability	If Requirements are fulfilled, roll d6: 1: Barrage is late due to confusion, conflicting priorities or enemy action. You may try again next Turn 2-6: Barrage is available immediately
Accuracy	A barrage will not necessarily hit its intended target. Roll on table below:

3d6 Roll	Accuracy
3	• Barrage falls short and hits own positions in this location if they are situated between the artillery and enemy. ○ Pre-Game Barrage is in effect on all own troops at this location, whether active in this battle or not • Own troops are unable to move to this location this Hour due to the bombardment •
4	• Barrage falls short, onto the table. • Determine aiming point using CoC Random Mortar Barrage procedure on p. 26. • Barrage continues for the rest of the Turn • Place shell holes onto the table area affected • Pre-Game Barrage is in effect on all own troops active at this location.
5-16	• Barrage hits the enemy as planned • Pre-Game Barrage is in effect on enemy troops at this location
17	• Barrage goes long and hits any non-active enemy troops at this location
18	• The barrage goes long and prevents any enemy units from

		moving up onto this step of the Ladder during this Hour.

Direct Hits	When the targeted troops first deploy, refer to the Soviet Barrage Table, below.
	Determine the targets in the area affected by the Barrage:
	• Each section, independent team (e.g. MMG team), vehicle, entrenchment, building and bridge is a target.
	• Temporarily attach each Senior Leader to a section for the purposes of resolving barrage effects.
	Using the Soviet Barrage Table, below, 2d6 on each target to see if a direct hit is achieved.
	In addition, each phone line gets an automatic direct hit.
	For each direct hit perform an H.E. attack on the target as specified in CoC rules (i.e. roll the number of HE dice indicated by Soviet Barrage Table, below). Figure out results using table below:

Target	Notes
Infantry	• Target is considered to be in Heavy cover if there are Entrenchments at the location • Target is considered to be in Light cover if there are no Entrenchments at the location • Roll for each *Team* (twice for a Red Army section), using Effect of Hit table (CoC 9.1), the target is considered to be in Effective Range • Any shock caused by the hit will be present at the beginning of the battle
Infantry with Support Weapon	• As for Infantry, above • In addition, the support weapon may be destroyed, see CoC rules section 10.3.5
Vehicle	• The vehicle may be damaged or destroyed, see CoC rules section 10.3.7 • Add Vehicle hit modifier from Soviet Barrage Table when using CoC Table Ten, *Vehicles in a Barrage* • Any shock caused by the hit will be in effect at the beginning of the battle

Entrenchment	• The entrenchment may be destroyed. Use CoC rules section 10.3.6 with below modifications:
	    ○ Entrenchments do not become unstable
	    ○ Five 6's are needed to destroy an entrenchment. Destroyed entrenchments (shell holes) provide Light Cover

Building	• The building may become unstable or collapse, see CoC rules section 10.3.6 • Any buildings which become unstable will begin battle in unstable state

		• Any building which collapses will begin battle as a ruin
	Bridge	• As for buildings
	Phone Line	• Just two 6's are needed to cut the phone line
Corrections	Due to lack of communication a Soviet barrage will run its course and cannot be stopped or corrected.	
Extension	Soviet barrages cannot be extended beyond one Turn using CoC dice.	

Soviet Barrage Table					
Artillery type	Direct Hit 2d6	On-Table Area of Effect	Deployment Roll	HE	Vehicle Hit Modifier
Two 82mm mortars (Battalion level)	11+	9"x18"	2-6	4	0
Six 82mm mortars (Regimental level)	10+	18"x18"	3-6	4	0
Six 76mm Regimental Guns (Regimental level)	10+	18"x18"	3-6	6	0
Eighteen 76mm Regimental Guns (Divisional level)	8+	Entire Table	3-6	6	0
Twenty 76mm Guns (Divisional level)	8+	Entire Table	4-6	6	0
Twenty-four 100mm Guns (Divisional level)	9+	Entire table	5-6	8	1
Twelve 122mm Howitzers (Divisional level)	10+	Entire table	4-6	11	1
Twelve 152mm Guns or Howitzers (Divisional level)	10+	Entire table	5-6	13	3

R23.1.2 FINNISH ARTILLERY

Finnish artillery techniques of WWII were considered - at least by the Finns themselves - to be far ahead of those of other nations. Very diligent development by visionary artillery thinkers in the Twenties and Thirties had resulted in an artillery system which was both accurate and flexible. Finnish artillery equipment was unfortunately very diverse and ammunition levels very low even at the beginning of the war.

Finnish artillery and mortar fire is called by a Forward Observer Team. Finnish Forward Observers will have radios if directing artillery and field telephones if directing mortars. Mortars must be sited no further than two locations away from the target location and a field telephone line will then run from the location of the battle to where

the mortars are sited, possibly passing a location   in between

FINNISH ARTILLERY PROCEDURE	
Step	**Action**
Requirements	* Artillery must be available * The barrage must be obtained using support points
Fire Requests	The fire request must be plotted prior to the beginning of the battle.
Availability	If Requirements are fulfilled, roll d6: 1: Barrage is late due to confusion, conflicting priorities or enemy action. You may try again next Turn 2-6: Barrage is available immediately
Accuracy	A barrage will not necessarily hit its intended target. Roll on table below but adjust by 1 towards either direction desired: <table><tr><th>3d6 Roll</th><th>Accuracy</th></tr><tr><td>3</td><td>• Barrage falls short and hits own positions in this location if they are situated between the artillery and enemy. ○ Pre-Game Barrage is in effect on all own troops at this location, whether active in this battle or not • Own troops are unable to move to this location this Hour due to the bombardment</td></tr><tr><td>4</td><td>• Barrage falls short, onto the table. • Determine aiming point using CoC Random Mortar Barrage procedure on p. 26. • Barrage continues for the rest of the Turn • Place shell holes onto the table area affected • Pre-Game Barrage is in effect on all own troops active at this location.</td></tr><tr><td>5-16</td><td>• Barrage hits the enemy as planned • Pre-Game Barrage is in effect on enemy troops at this location</td></tr><tr><td>17</td><td>• Barrage goes long and hits any non-active enemy troops at this location</td></tr><tr><td>18</td><td>• The barrage goes long and prevents any enemy units from moving up onto this step of the Ladder during this Hour.</td></tr></table>
Direct Hits	Refer to the Finnish Barrage Table, below. Determine the targets in the area affected by the Barrage: • Each section, independent team (e.g. MMG team), vehicle, entrenchment, building and bridge is a target. • Temporarily attach each Senior Leader to a section for the purposes of resolving this barrage. Using the Finnish Barrage Table, below, 2d6 on each target to see if a direct hit is achieved.

In addition, each phone line gets an automatic direct hit.

For each direct hit perform an H.E. attack on the target as specified in CoC rules (i.e. roll the number of HE dice indicated by Finnish Barrage Table, below). Figure out results using table below:

Target	Notes
Infantry	• Target is considered to be in Heavy cover if there are Entrenchments at the location • Target is considered to be in Light cover if there are no Entrenchments at the location • Roll for each *Team* (twice for a Red Army section), using Effect of Hit table (CoC 9.1), the target is considered to be in Effective Range • Any shock caused by the hit will be present at the beginning of the battle
Infantry with Support Weapon	• As for Infantry, above • In addition, the support weapon may be destroyed, see CoC rules section 10.3.5
Vehicle	• The vehicle may be damaged or destroyed, see CoC rules section 10.3.7 • Add Vehicle hit modifier from Soviet Barrage Table when using CoC Table Ten, *Vehicles in a Barrage* • Any shock caused by the hit will be present at the beginning of the battle

Entrenchment	• The entrenchment may be destroyed. Use CoC rules section 10.3.6 with below modifications:
	  o Entrenchments do not become unstable
	  o Five 6's are needed to destroy an entrenchment. Destroyed entrenchments (shell holes) provide Light Cover

Building	• The building may become unstable or collapse, see CoC rules section 10.3.6 • Any buildings which become unstable will begin battle in unstable state • Any building which collapses will begin battle as a ruin
Bridge	• As for buildings
Phone Line	• Just two 6's are needed to cut the phone line

Corrections	A Finnish barrage can be corrected as explained in CoC rules section 10.3 Step 3 or stopped as put forth in 10.3.2, provided an unpinned FO within LOS and with working communications device is directing the fire.
Extension	Finnish barrages can be extended beyond one Turn normally, using CoC dice.

Finnish Barrage Table					
Artillery type	Direct Hit	On-Table Area of	Deployment Roll	HE	Vehicle Hit Modifier

	2d6	Effect			
One 81mm mortar	11+	9"x9"	2-6	4	0
Two 81mm mortars	10+	9"x18"	2-6	4	0
Four 76mm Guns (Brigade level)	9+	18"x18"	3-6	6	0
Twelve 76mm Guns (Brigade level)	7+	Entire table	4-6	6	0
Four 122mm Howitzers (Brigade level)	11+	Entire table	3-6	11	1
Four 152mm Guns of Kaarnajoki Battery (Divisional level)	11+	Entire table	3-6	13	3

R23.2 SMOKE AMMUNITION

There seem to be very few mentions of either side using smoke artillery or mortar ammunition in the Winter War, though it was clearly available for mortars and would undoubtedly have been very useful when assaulting Finnish positions. Possibly the cold weather and/or deep snow may have caused difficulties when firing smoke. Urho Kähönen's notes written on the Taipale front mention the Red Army using smoke shells or mortar bombs on February 8th, 1940. Neither side may therefore use smoke ammunition in WoNS prior to that date.

R23.3 FORWARD OBSERVERS AND SUPPORT WEAPON SPOTTERS

In general Chain of Command has no spotting and this has a major effect on how a spotter of, say, the 50mm mortar acts. In real life he would probably hang back and observe from a bush while his team kept the weapon itself hidden from view. In CoC however the spotter is immediately visible and will be targeted.

In WoNS, some rules amendments - heavily inspired by the sniper rules - are probably in order:

Forward Observers and Spotters move in the same manner as other troops. Forward Observers may direct fire only when activated. Spotters may direct fire when the support weapon crew they are part of is activated. They may target any Unit on the table which is in direct line of sight, or whose presence can reasonably be deduced from other indications such as for example smoke from a chimney.

The Forward Observer or Spotter is automatically detected if within LoS and 24". When immobile or moving at 1d6 speed in cover beyond 24" range the FO or Spotter can be detected only by units who succeed in a roll of 5-6 during their Activation or when they are on Overwatch *and* the FO or Spotter acts. Only when they spot the forward observer or Spotter will they be able to fire at his position.

Once a Forward Observer or Spotter is spotted, he may be fired at as normal by the *Unit* which has identified his position, as long as he remains in that position. If he exits LoS he must again be spotted should he reappear further than 6" away from his previous position.

No matter where the FO or Spotter is, a line of communication must exist between him and the weapons he is directing. By default, any Leader must be within his Command Range of the weapon crew and a non-Leader Spotter must be within 4". These distances can be extended by using communications devices such as radios, field telephones and signaling instruments.

R24. AIR ASSETS

Ruling the skies above the fighting, the Red Air Force was a major factor in these battles. Several air support missions are available as support options to the Russian player.

The Polikarpov I-153 *Tchaika* was one of the last biplane fighters of the world. It was already equipped with a retractable undercarriage. It was heavily armed with four ShKas 7.62mm machine guns, each with a rate of fire of 1800 rpm, three times that of a Maxim medium machine gun. It could additionally carry two 50 kg, four 25 kg or eight 10 kg bombs. Or eight RS-82 rockets.

Based on the *Tchaika*, the I-16 *Rata* was an ungainly monoplane which represented the most advanced technology available to the Red Air Force at the time. The Type 24 was armed with the same four machine guns as its predecessor. The Type 28 replaced the wing machine guns with 20mm cannon.

R24.1 GROUND ATTACK PROCEDURE

Finnish sources agree that swooping fighter planes firing their guns and dropping bombs at the Finns were all too common in these battles.

A plane activates on a 3, appearing anywhere on the table. On its second activation it makes its firing pass or bombing run and disappears off-table. On its third activation it rolls for a second pass, succeeding on 4-6 and then beginning the same routine again, starting with appearing on the table on the next phase. If it fails the roll, it will head for home or towards some other target off-map and will not return.

If the plane has bombs or rockets it will always use them on the first pass. If not, it will fire its automatic weapons.

GROUND ATTACK PROCEDURE		
Activation	Plane	AA Fire Possible?
1	Appears on table	Yes
2	Makes firing pass / bombing or rocket run and disappears off-table	Overwatch or Interrupt only
3	Off table, rolls for second pass, succeeding on 4-6. If successful, starts at Activation 1 when next activated	No

R24.1.1 TARGETING

Designate a target for the airplane. The target must be visible to the pilot, i.e. either in Open or Light cover and near enough to edge of woods from the direction of approach to be visible. Or the target must be in Hard cover and have fired at least one of its weapons during last Phase.

Once designated the target can be attacked even if it were to disappear from sight, e.g. by running deeper into woods.

R24.1.2 BOMBING

The planes in question are fighter-bombers with no bomb sights. They can release any number of bombs but must release at least two on any bombing run. Roll 2d6 once on the bombing table:

Bombing Table	
2d6 Roll	Result
2-4	Bombs fall short by 6d6 inches. Deviate impact point by 2d6 inches in random direction. If there are any targets within 4" of impact point, resolve attack of one bomb on them.
5-8	Bombs go long by 6d6 inches. Deviate impact point by 2d6 inches in random direction. If there are any targets within 4" of impact point, resolve attack of one bomb on them.
9	One bomb hits the target, ignore the rest
10-11	Half of the bombs released hit the target, ignore the rest
12	All bombs released hit the target

Modifiers to the Bombing Table: Point target (vehicle or bunker): -2

Bomb Data	AP	HE
10 kg FAB-10 Aerial Bomb	4	7
25 kg FAB-25 Aerial Bomb	5	11
50 kg FAB-50 Aerial Bomb	8	14
100 kg Aerial Bomb		17
250 kg Aerial Bomb		22

R24.1.3 ROCKET ATTACKS

There are no mentions of rockets in the Finnish sources. But rockets were available and may well have been used in these battles. And they too are way too cool to leave out of this campaign.

The planes in question are fighter-bombers which use their machine gun sights to take a very rudimentary aim at the target. The RS-82 was infamous for its inaccuracy [B27]. The plane can fire any number of rockets but must fire at least two on any rocket attack run. Roll 2d6 once on the rocket attack table:

Rocket Attack Table	
2d6 Roll	Result
2-3	The rockets fly off in seemingly random directions and fail to hit anything
4-5	The rockets go short by 6d6 inches. Deviate impact point by 1d6 inches in random direction. If there are any targets within 4" of impact point, resolve attack of one rocket on them.
6-8	The rockets go long by 6d6 inches. Deviate impact point by 1d6 inches in random direction. If there are any targets within 4" of impact point, resolve attack of one

	rocket on them.
9-11	One rocket hits the target, ignore the rest
12	Half of the rockets fired hit the target, ignore the rest

Modifiers to the Rocket Attack Table: Point target (vehicle or bunker): -3

Rocket Data	AP	HE	Notes
RS-82 HE Aerial Rocket	2	4	All shock caused by rockets is doubled

R24.1.4 STRAFING

Strafing involves machine gunning a ground target. This is made easier by the tracer ammunition used by aircraft and the fact that aircraft machine guns tend to possess a very high rate of fire. On the other hand, due to the high speed of the aircraft, there is little time to spot or aim and the Polikarpov fighters have very stiff triggers which tends to throw off the aim of the pilots just at the wrong moment.

A strafing attack is run as a regular machine gun attack at Effective range. Note that in CoC 20mm cannon roll the number of dice indicated to hit just as machine guns but reduce the amount of cover when rolling for effect.

The R-5 reconnaissance bomber's observer's machine guns can also be used to strafe ground targets. This is far more difficult, and the observer will only hit on 7s (any 6s are rerolled and if reroll is 4-6 then target is hit).

R24.1.5 ANTI-AIRCRAFT FIRE

Unfortunately for the Finns no anti-aircraft artillery is available to them in this campaign. But infantry small arms may be used for anti-aircraft defense while the enemy aircraft is on the table.

The Finnish Maxim type machine gun m/33-32 is equipped with an extension to the tripod which the crew may install using one command initiative. Once installed the gun may fire at half firepower (5 dice) at any aircraft on the map and at full firepower at any other targets. The machine gun is considered to be set up for AA defense if the tripod extension is installed.

Any other Maxim type machine guns may be set up for AA defense if a cart is in base contact with the crew. The standard procedure is to tip the cart on its side and lift the Maxim gun on top of the cart's wheel, creating a rotating firing platform of sorts. This may be accomplished by the crew (if there are at least three members) using one command initiative. Once installed the gun may fire at one third firepower (3 dice) at any aircraft on the map but not at all at any other targets.

Light machine guns may be used for anti-aircraft fire for 1 die. SMGs cannot be used in AA defense.

As unlikely as it may seem, the *Taktillinen opas II* circular [B28], published by the Finnish Army Office for Tactics and widely distributed on December 16, 1939, also has instructions on rifle fire against aircraft so we must discuss it here. Every ten rifles firing at aircraft count as 1 die.

While performing anti-aircraft fire and/or as long as its machine gun is set up for AA defense, the cover of any unit is considered to be diminished by one level.

A model 09-21 Maxim MMG mounted on a cartwheel for anti-aircraft use (SA-Kuva)

Attack dice are rolled and only 7s hit (any 6s are rerolled and if reroll is 4-6 then target is hit). For each hit roll 1d6 for effect: On 4-5 plane receives Shock and will be at -1 to hit while performing its own attack. On a 6 the plane or pilot has sustained serious damage and must immediately abort its mission.

R25. PRISONERS AND DESERTERS

Battle and campaign events may lead to the capture of prisoners and deserters.

Interrogation Roll (1d6)	Results
1-3	Only information on name and rank are gained
4-5	Good information: Enemy Support Unit choices for next scenario and locations of entrenchments and field works and minefields are revealed before the battle begins and before you need to declare your own choices.
6	As above, but in addition a level of surprise equal to "Normal -2" (see R4.

Captured Heroes never give anything but name and rank.

Deserters are interrogated in the same manner but a +1 is added to the roll.

R26. BURNING BUILDINGS

The Finns had prepared gasoline bottles for the purposes of burning down all buildings in the battle area. The procedure was to break all the windows and throw the bottle into the house. Assuming gasoline bottles are available, any building not set on fire at the beginning of a scenario may be set alight by any leader, section or team by using one Command Initiative. If gasoline bottles are not available an additional roll of 5-6 on a d6 will be required to set the building on fire.

Any building set on fire will burn for eight hours and the ruins will be too warm to be entered into for an additional four hours. A burning building will illuminate an area of 9" in all directions. In addition, any target located between a burning building and the firer is considered to be illuminated (see R5. *Night Fighting*). A burning building will cause 6" of blocking smoke to be spread in the direction of the wind.

R100. MISCELLANOUS CoC RULE CHANGES

Here I've collected some house rules etc. which we have found useful in our CoC gaming. These changes are not specific to WoNS campaigns.

R100.1 GEMIGABOK CLUB RULE #1: MAXIMUM GORE

In any case where a rule may be interpreted in more than one way, we always go with the alternative which produces more casualties.

R100.9.1.1 HITS ON LEADERS & FORWARD OBSERVERS

In CoC if a Leader or Forward Observer is within 4" of a Section or Team which loses men killed, the player must roll a D6 to see if they have been hit. A roll equal to or less than the number of men killed in that round of firing will mean that the Leader or Observer has been hit rather than one of the men.

This rule makes it very likely that the leader is hit.

We prefer to roll a number of d6s equal to the number of men killed. If any one of these is a 1, a Leader or Forward Observer has been hit.

If there are multiple Leaders or FOs present, the identity of the person hit is determined using a die roll, a high result indicating the higher-ranking individual.

R100.14.3 SHOCK & MOVEMENT

In CoC, any Team moving subtracts its current level of Shock from the total number of pips rolled for movement. This works great and very logically when the player wants to advance his troops - the men are unwilling to move quickly because they are worried about the situation. But when the player wants to retreat quickly, the logic breaks down, as shock slows that down too.

Suggested rule: Shock does not prevent or slow down movement, as long as it is away from all enemy units.

R100.14.5 PINNED UNITS

In CoC, any Sections or Teams will become Pinned when their Shock level exceeds the number of men and Leaders remaining in the Unit. A Pinned Unit may not move and any firing it does is undertaken with a 50% reduction in firing dice.

This is a good and logical rule for most situations. But it can lead to mildly silly situations, especially after any close combat, when the losing side retreats from the fight, often becoming pinned in the middle of some clearing, in plain view of the enemy and just inches away from good cover. They then curl up and die most unrealistically, whereas in real life they probably would attempt to flee.

Suggested rule: Pinned status does not prevent or slow down movement, as long as...

a) The pinned unit is not in heavy or bunker cover
b) and the pinned unit is in enemy LOS
c) and its movement is away from all enemy units.