A Fistful of TOWs 3

Anti-Vehicle (AV) and Anti-Infantry (AI) Fire

To Hit

Guns	To Hit
Short	3+
Effective	4+
Long	5+

Missiles: Unlimited Ammo	To Hit
1st Gen.	5+
2nd Gen.	3+
3rd Gen.	2+

Missiles: Limited Ammo	To Hit
1st Gen.	6+
2nd Gen.	4+
3rd Gen.	3+

Die Roll Modifiers For AV & AI Fire

- ?   Firer's quality to-hit modifier (5.2)
- −2   Firer is soft and suppressed
- −1   Firer is armored and suppressed
- −1   Firing overwatch during enemy movement except for shoot-and-scoot (12.6)
- −1   Firer using thermal sights through normal smoke (10.8.1)
- −2   Firer using thermal sights through incendiary smoke (10.8.1)
- +1   Target using strategic movement (6.6)
- −1   Night and firer lacks thermal sights (18.2)
- −1   Firer using chemical protective gear (23.5.1)
- ?   Firer's anti-infantry modifier [AI fire only] (14.3)
- −1   Infantry firing AI from vehicle [AI fire only] (12.11)

Gun Penetration Modifiers For Range

Range	Modifier
Short	+2
Long	−2

SAMs, AAMs, & AA Guns vs. Helicopters (17.5)

Range	To Hit
Short	5+
Effective	5+
Long	6+

Firer quality modifier is the only to-hit modifier.
If hit, do a standard AV penetration roll.

Non-AA Weapons vs. Helicopters (17.4)

No to-hit modifiers are used; for guns, target must be within effective range.

Guns with ROF 4 or more: 6+ To Hit
Guns with ROF 3 or less: 6+ To Hit, treat ROF as 1
Missiles (2nd or 3rd Gen.):   6+ To Hit, target must be within ½ of maximum range
Integral machineguns: Pen 1, ROF 1, Rng 10″

If hit, do a standard AV penetration roll.

Quality Chart

Troop Type	Quality Number	Cohesion Distance	To Hit Modifier	Gun ROF Modifier
Poor	7+	2″	−3	−2
Marginal	7+	2″	−2	−1
Fair	6+	4″	−1	0
Average	5+	4″	0	0
Good	4+	6″	+1	0
Excellent	3+	6″	+1	+1
Superb	2+	8″	+1	+1

Quality Check Modifiers:
- −1   Hit by AV or AI fire while using strategic movement (6.6)
- −1   Unit's formation HQ has been eliminated (6.8)
- +2   For infantry—only Poor, Marginal, or in the open—to fire first if an armored vehicle is starting close combat with them. Do only once prior to first round.

Target Priority

Must shoot at **nearest enemy stand** at moment of fire except:
- Can ignore enemy stands already shot at this phase
- Can ignore infantry for vehicles or vice versa
- Can ignore a target in cover or behind obstacle for one in open
- Can ignore light vehicles for heavy armored vehicles (compare front armor)
- Helicopters prioritized as if armored vehicles with '0' front armor, but AA stands can always ignore other stands to target helicopters

Target priority does not apply to indirect area fire.

Airstrikes

Airstrike Arrival (roll 1 die)

Roll	Result
1	Strike aborts/is destroyed
2	Strike delayed, roll next turn
3+	Strike arrives

Arrival die roll modifiers:
- +1   for dedicated ground attack aircraft
- +1   for friendly air superiority
- −2   for enemy air superiority

Bombs/ Rockets (Area Fire, 3+ To Hit)

Type	Fire Zone Radius	Fire Index
Lt. GP Bomb	1″	5
Med. GP Bomb	1″	15
Hvy. GP Bomb	1″	23
Lt. Cluster Bomb	2″	12
Hvy. Cluster Bomb	2″	18
Lt. Rocket	0.5″	7
Hvy. Rocket	1″	12

To Hit modifiers (apply once each strike):
−1 if AA Gun in range of flight path, −2 if SAM in range of flight path.

Strafing Attacks (AV/AI Fire, 3+ To Hit)

Type	Pen	ROF	AI
MG	2	3	−1
Cannon	6	3	0
A-10	9	3	0

Missile: 2 shots within 4″ of marker, 2+ to hit, Pen 18h
Guided Bomb: 1 shot w/in 4″ of marker, 2+ to hit, a hit destroys the target stand
Napalm: 4″ x 2″ template, soft hit on 2+ to eliminate, AFV hit on 6+ to QC

Spotting Chart

Target Type	Moving In Open or Firing	Moving In Cover	Stationary In Cover	Stationary in Open
Vehicle	Vis. Limit	20″	10″	45″
Towed Wpn	Vis. Limit	15″	5″	25″
Personnel	15″	10″	1″ *	5″

- Must have LOS to the target
- All targets are auto spotted at 1″*
- All targets are auto spotted at 10″ range or less if spotter is using thermal sights*

Modifiers:
- Spotter Poor or Fair .... −5″
- Spotter Excellent or Superb .... +5″
- Spotter is Recon Stand............ +5″

*Modifiers do not affect these ranges.

Visibility Limits:
- Day - Good .... 70″
- Day - Moderate... 30″
- Day - Bad .... 15″
- Night .... 8″
- IR/II/ 1st Gen TI .. 20″
- 2nd Gen TI .... 40″
- In terrain.............. 2″

Strategic Movement

- Double movement allowance
- Lasts until start of next friendly movement phase
- Can't fire, can't take Hold Fire/Overwatch
- Can't start or move within 10″ of enemy
- Incoming AV/AI fire at +1 To Hit
- QCs from AV/AI fire at −1
- Fights normally in Close Combat

Helicopters

- Rockets have 30″ range
- Move ½ and fire 1st gen missiles
- Move full and fire 2nd or 3rd gen missiles
- No artillery barrages allowed within 20″ of friendly helicopters
- Can use Strategic Movement

Engineering

Obstacle	To create 1″	To breach 1″
Abatis	5+	3+
Anti-tank Ditch	5+	3+
Barbed Wire	4+	3+
Minefield, Buried	5+	3+
Minefield, Surface	auto	3+
Road Crater	5+	3+

Minefields
Antipersonnel (AP), Anti-tank (AT), Mixed (M):

4+ to hit per inch traversed.

AP & M: Soft takes QC

AT & M: Armored takes Pen 7he attack vs. flank

Entrenchment	Terrain Save	Cover	Create by Engineer / Other
Hasty Infantry	4+	light	auto* / 3+ *
Deliberate Infantry	2+	heavy	not allowed
Hasty Vehicle	5+	light	6+ two bulldozers / n.a.
Deliberate Vehicle	3+	heavy	not allowed
Fortification	2+ vs AI	heavy	not allowed

*Success roll 5+ if engineer or other is suppressed.
Costs 2 movement points to occupy entrenchment if not the creator.

Terrain Effects Chart

Terrain	Saving Throw	Cover Type	Height, Block LOS?	Movement Cost					
				Tracked	Halftrack	Wheeled	Leg	Towed	Helicopter
Clear	–	None	0	1	1	1	1	1	1
Bad Going	–	None	0	2	3	3	1	2	1
Sand or Snow	–	None	0	1	3	3	1	2	1
Low Crops	6+ (Inf. only)	Light (Infantry only)	0	1	1	1	1	1	1
High Crops	6+	Light	1 Blk	1	1	1	1	1	1
Light Woods	5+ [4+ Msl]	Light	1 Blk	1	1	1	1	1	1
Heavy Woods	5+ [4+ Msl]	Light	1 Blk	2	2	2	1	2	1
Forest	4+ [3+ Msl]	Light	1 Blk	P	P	P	1	P	1
Rough	5+	Light	1 Blk	2	3	3	1	2	1
Swamp	5+ [4+ Msl]	Light	1 Blk	4	4	4	2	4	1
Town	4+ [3+ Msl]	Heavy	1 Blk	2	2	2	1	2	1
Road	As surrounding terrain	As surrounding terrain	0	½	½	¼	1	½	-
Path	As surrounding terrain	As surrounding terrain	0	1	1	1	1	1	–
River/Canal-Fordable	4+	Spot & LOS	0	2	2	2	2	2	1
River/Canal-Impassable	4+	Spot & LOS	0	P (4 amphib.)	P (4 amphib.)	P (4 amphib.)	P[2]	P	1
Linear Obstacles									
Stream	4+	Spot & LOS	0	2	2	2	–	2	–
Cliff	–	None	0	P	P	P	P[1] or 1	P	–
Ridgeline	4+	Spot & LOS	0 Blk	–	–	–	–	–	–
Abatis	–	None	0	P	P	P	P	P	–
Anti-tank Ditch	–[3]	None[3]	0	P	P	P	–	P	–
Dragons Teeth	–	None	0	P	P	P			
Barbed Wire	–	None	0	–	P for soft only	P for soft only	P	P	–
Low Embankment Low Stone Wall Low Stone Fence	4+	Spot & LOS	0	–	–	–	–	–	–
High Embankment High Stone Wall High Stone Fence Hedgerow	4+	Spot & LOS	1 Blk	2	2	2	2	2	–
High Hedge Dense Wind Break	5+	Spot & LOS	1 Blk	2	2	2	2	2	–
Low Hedge	5+	Spot & LOS	0	–	–	–	–	–	–
Low Earthen Berm	4+ inf. 6+ veh.& tow.	Spot & LOS	0	–	–	–	–	–	–
Planted Low Earthen Berm	4+ inf. 5+ veh.& tow.	Spot & LOS	1 Blk	–	–	–	–	–	–
Small Canal/Large Ditch	–	None	0	P	P	P	P[4]	P	1
Causeway/Dike	4+ (Inf. only)	Spot & LOS (Infantry only)	1 Blk	See 7.21.8	See 7.21.8	See 7.21.8	–	–	–

P = Prohibited   – = No Effect   A number indicates how many inches of movement it costs to move one inch through that type of terrain.

Linear Obstacles: If target is behind and touching obstacle, and LOS/fire crosses the obstacle, then cover and saving throw applies, otherwise use surrounding terrain.

[1] Light infantry stands may cross a cliff by spending an entire movement phase beside the cliff. See 7.18 for optional rules.

[2] At referee's discretion, infantry stands may cross with rubber rafts at 1" per turn; they cannot fire while in the water.

[3] Infantry may occupy and treat as Hasty Infantry Entrenchment.

[4] At referee's discretion infantry stands may cross with rubber rafts. The stands must start the movement phase in contact with the ditch/canal and expend their entire movement to cross.

Terrain Saving Throw Die Roll Modifiers

+1 Target is in smoke and firer lacks Thermal Sights

+1 If attacked by missile and target has ATGM Point Defense System

Friction Response Die Roll Modifiers (X)

−1 Poor/Fair quality unit

+1 Excellent or Superb quality unit

−1 Unit's formation HQ is eliminated

−1 At night or in bad weather

−1 Enemy is using EW

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❶ Artillery Availability Table

Western-style Artillery

Modified Roll	Self-prop.	Towed	Bn Mortar
1 or less	0	0	0
2	1	0	0
3	1	1	1
4	2	1	1
5	2	2	1
6	3	3	1

Russian-style Artillery

Modified Roll	Self-prop.	Towed	Bn Mortar
1 or less	0	0	0
2	0	0	0
3	1	0	1
4	2	1	1
5	3	3	1
6	3	3	1

Indirect Area Fire Procedure

Number in red indicates which chart to use.

a. Roll for available Fire Units ❶
b. Designate Barrages and identify observer for each Barrage
c. Place Fire Zone Marker(s) for each Barrage
d. Allocate Fire Units to each Fire Zone Marker

For each Barrage:
e. Roll for accuracy ❸

For each Fire Zone Marker:
f. Determine Fire Index Number ❹
g. Roll for effect ❺ on each stand within the Fire Zone Marker's radius ❷

❷ Area Fire Zone Size Table

Guns, Howitzers, Mortars, AGLs and Helo Rockets

# of Fire Units	HE Fire Zone Radius	ICM/Mines Fire Zone Radius	Helo HE Rocket Radius	Helo SBM Rocket Radius
1-4	1"	1.5"		
5-13	1.5"	2"	1"	1.5"
14+	2"	3"		

Multiple Rocket Launchers

# of Fire Units	HE Fire Zone Radius	ICM/Mines Fire Zone Radius
1-2	2"	3"
3-4	2.5"	4"
5+	3"	5"

❸ Area Fire Accuracy Roll

- **Roll** accuracy number or higher for each barrage:
  + observer quality "to hit" modifier
  −1 if observer is suppressed
- **Success:** all fire zone markers in the barrage have full effectiveness.
- **Failure:** If a "1" is rolled, go to *Indirect Fire Problems Table*. Otherwise all fire zone markers have reduced effectiveness (subtract 5 from the Fire Index Number).

❹ Area Fire Index Table

Guns, Howitzers, Mortars, AGLs, and Helo Rockets

# of Fire Units	HE 30-69	HE 70-89	HE 90-119	HE 120-139	HE 140-169	HE 170+	ICM 140-169	ICM 170+	Helo HE Rckt	Helo SBM Rckt
1	1	3	3	8	8	14	14	15	3	8
2	2	4	5	10	12	16	15	16	5	14
3	3	7	8	14	14	18	16	18	8	16
4	4	8	9	15	16	19	16	19	9	18
5	5	9	11	16	17	21	17	21	11	18
6-7	6	10	14	18	18	21	18	21	14	19
8-10	8	15	15	19	20	22	21	22	15	21
11-13	10	16	16	21	21	24	21	22	16	22
14-16	14	16	18	21	22	25	22	24	21	24
17+	15	18	18	22	23	25	23	25	21	25

Multiple Rocket Launcher

# of Fire Units	Lt HE	Med HE	Hvy HE	Very Hvy HE	Hvy ICM	Very Hvy ICM
1	1	1	8	12	7	21
2	1	1	12	15	12	22
3	1	2	15	17	15	24
4	1	4	16	18	16	25
5	1	5	18	19	16	25
6	1	6	19	21	16	25
7	2	8	19	21	18	25
8	2	8	21	22	18	25
9	3	9	21	22	19	25
10	3	10	21	22	21	26
11+	3	10	22	24	21	26

For "reduced effectiveness" fire subtract 5 from Fire Index number listed.

❺ Area Fire Resolution Chart (Roll 1 die Per Affected Stand)

Fire Index Number	Soft in Open	Soft in Lt. Cover AFV* in Open	Soft in Hvy. Cover AFV* in Cover	Fire Index Number	Soft in Open	Soft in Lt. Cover AFV* in Open	Soft in Hvy. Cover AFV* in Cover
1	-- 2+ S	– 5+ S	– 6+ S	14	S 2+ Q	S 5+ Q	S 6+ Q
2	S 6+ Q	– 4+ S	– 5+ S	15	Q 6+ D	S 5+ Q	S 6+ Q
3	S 6+ Q	– 3+ S	– 5+ S	16	Q 6+ D	S 4+ Q	S 6+ Q
4	S 5+ Q	– 2+ S	– 4+ S	17	Q 6+ D	S 4+ Q	S 5+ Q
5	S 5+ Q	S 6+ Q	– 4+ S	18	Q 6+ D	S 3+ Q	S 5+ Q
6	S 5+ Q	S 6+ Q	– 3+ S	19	Q 6+ D	S 2+ Q	S 5+ Q
7	S 4+ Q	S 6+ Q	– 4+ S	20	Q 6+ D	S 2+ Q	S 4+ Q
8	S 4+ Q	S 6+ Q	– 3+ S	21	Q 5+ D	Q 6+ D	S 4+ Q
9	S 4+ Q	S 6+ Q	– 2+ S	22	Q 5+ D	Q 6+ D	S 3+ Q
10	S 3+ Q	S 6+ Q	– 2+ S	23	Q 5+ D	Q 6+ D	S 2+ Q
11	S 3+ Q	S 6+ Q	S 6+ Q	24	Q 4+ D	Q 6+ D	S 2+ Q
12	S 3+ Q	S 5+ Q	S 6+ Q	25/Nuc-C	Q 4+ D	Q 5+ D	Q 6+ D
13	S 2+ Q	S 5+ Q	S 6+ Q	26/Nuc-B	Q 2+ D	Q 4+ D	Q 6+ D

*Open-topped AFVs never count as in cover and get a +1 modifier to the die roll

If you roll less than the listed number, apply the first result listed. Otherwise apply the second result listed.

Results: '--' = no effect   'S' = suppressed   'Q' = quality check (suppressed if passed, eliminated if failed)   'D' = destroyed

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Area Fire Problems Table (Roll 1 die, use the to-hit modifier for the observer's quality)

Modified Roll	Effect
0 or less	Roll on Indirect Area Fire SNAFU Table.
1	Scatters 3″, fire has *reduced effectiveness.*
2	Scatters 2″, fire has *reduced effectiveness.*
3	Roll on Indirect Area Fire SNAFU Table.
4	Counterbattery: additional permanent –1 to participating battalions' availability modifiers. On-table loses 1 firing stand per support group. Fire has full effectiveness.
5 or higher	Fire has *reduced effectiveness.*

Area Fire SNAFU Table (Roll 3 dice and add together)

Modified Roll	Effect
5 or less	**Observer gave own coordinates.** Place barrage on observing stand, centering barrage on it. Fire lands with full effectiveness.
6	**Observer gave coordinates of nearest friendlies.** Place barrage on friendly unit nearest to the target, centering barrage on it. Fire has full effectiveness.
7	**Target location error.** Move barrage 10″ randomly due east, north, south, or west.* Fire has full effectiveness.
8	**Target location error.** Move barrage 10″ randomly due east, north, south, or west.* Fire has reduced effectiveness.
9	**Map confusion.** If any of the target stands that would be affected by the barrage are in trees or buildings, move the marker to the terrain feature of the same type that is closest to the feature the target is in (e.g., if in buildings, move barrage to next town closest to the buildings target is in), and place it in the same relative position on the feature. If there is no other feature of that type on the table, the fire lands off-table. If the target is not located in trees, buildings, or on a hill, the fire scatters 5″.
10	**Observer range measurement error.** Move barrage away from observer one quarter of the observer target range.* Fire lands with reduced effectiveness.
11	**Observer range measurement error.** Move barrage toward observer one quarter of the observer-target range.* Fire lands with reduced effectiveness.
12	**Barrage cancelled due to uncertainty over location of friendly units.** Remove barrage, no fire lands.
13	**Target location error.** Move barrage 5″ randomly due south, north, east or west.* Fire has reduced effectiveness.
14	**Target location error.** Move barrage 5″ randomly due south, north, east or west.* Fire has full effectiveness.
15	**Counterbattery or AAA disaster.** Fire lands with full effectiveness. Then artillery randomly selects one of the participating support groups—it is eliminated and cannot fire anymore in the game (if on-table, all the support group's stands are eliminated). Airstrike is shot down.
16 or higher	**Fire mission cancelled due to communications problem.** Remove barrage, no fire lands.

*If barrage is an airstrike, place it on the stand nearest this point (regardless if the stand is friendly or enemy).

Turn Sequence

Attacker Turn

Command Phase (No overwatch)
1. The Attacker places **reinforcements** on the board

Area Fire Phase (No overwatch)
1. Remove Defender's **suppressed-A markers**
2. Remove Attacker's **sustained barrages**, Attacker's **smoke, & Attacker's irritant chems.**
3. Attacker places **airstrike** barrage markers, rolls for arrival and resolves
4. Attacker **rolls for available fire units** from artillery support groups and on-table mortar stands
5. Attacker **places barrages**, designates as *fire blow* or *sustained*, places fire zone markers for each barrage and allocates fire units to each fire zone marker. All barrages should be placed before any are resolved (including indirect and direct area fire from on-table stands)
6. **Resolve** Attacker's **barrages and chemical zone attacks**
7. **Remove** Attacker's **fire blows**, leave sustained barrages in place

Overwatch First Phase (Defender)

Movement Phase
1. The Attacker **moves**
2. Defender may conduct **overwatch fire or shoot-and-scoot** at any time
3. Defender's stands **pivot**, if eligible
4. **Quality checks** are taken. No overwatch activity is allowed during this sub-phase

Close Combat Phase
1. Defender **fires**
2. Attacker takes **quality checks** due to close combat.
3. Defender **pivots**
4. Attacker **fires**
5. Defender takes **quality checks** due to close combat
6. Attacker **pivots**
7. **Reduce remaining movement** by one movement point
8. **Repeat** steps 1–7 until there are no enemy within close combat range
9. Complete **movement**. Resolve additional close combats

Overwatch Last Phase (Defender)

Fire Phase (All fire in phase is simultaneous. Results take effect after all firing is done.)
1. Remove Defender's **suppressed-B** markers
2. Attacker **fires**
3. Defenders with **hold fire** markers fire
4. **Remove destroyed** stands
5. Resolve **quality checks**
6. Attacker **places overwatch markers** on stands that did not move or fire

Final Phase (No overwatch)
1. Resolve any housekeeping chores
2. Make quality checks for **unit losses**

Defender Turn — *follow same sequence but reverse the roles.*