

# **A Torrent of Steel**

**Micro-armour rules for the Late 20<sup>th</sup> Century**

**by**

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## Scales

Ground Scale is 1mm = 4 metres.

Time scale is not specified but can be assumed to be between five and fifteen minutes per bound.

1 model can be made to represent more than one vehicle, typically three or four, simply by numbering the base. Each kill can then be marked off on the base with a spirit pen.

## Order of Play (All movement is alternate)

1. Place all artillery pre-ranged markers
2. Make all mandatory movement (i.e. retreats etc. required by morale tests)
3. Make any requests for air support or off-table artillery support
4. Moving side makes all voluntary movement.
5. Resolve all indirect artillery fire (on and off-table).
6. Resolve all air attacks
7. Resolve all direct fire.
8. Check morale where necessary.
9. Carry out any inter-unit communication.

## Movement (In Cm)

*For movement of individual armoured vehicles see appendix.*

	<u>Cross Country</u>	<u>Road</u>
Light soft-skins up to 1.5 tonnes	30	60
Soft-skins over 1.5 tonnes	20	45
Towed artillery etc	20	30
Infantry on foot	10	15

## Movement Variation

Moving through woods	½ speed.
Moving in broken ground	¼ speed.
Fording streams	triple distance.
Moving through built-up area	¼ speed.

## Evolutions

Infantry debussing or embussing	¼ move.
Towed artillery unlimbering or limbering (lose one round of firing)	½ move.
Infantry digging-into foxholes	3 moves

## Location

In order to acquire targets a unit must first locate the position of the enemy. No unit may fire upon any enemy unit that it has not identified visually. Individual units may check one possible area of enemy activity once in every bound. Units may warn friends of the existence of enemy forces by means of the communications net, but the warned unit must still locate the enemy itself.

### Method

Determine the area to be checked (usually a feature – a village, a wood, a hill etc.). The checked area may not exceed 20cm x 20cm. The locating unit must have a clear line of sight to the feature. Roll two D6. To the total obtained add or subtract:

Checking a wood	- 3
Checking walled enclosures or built-up area	- 6
Enemy is dug-in infantry	- 4
Enemy vehicles are over 2 metres tall	+ 3
Enemy fired MBT or similar within area	+ 5
Enemy fired autocannon within area	+ 3
Enemy fired small arms within area	+ 1
Enemy vehicles moved within area	+ 3
Enemy on foot moved within area	+ 1
Area obscured by smoke	- 6
Observing from higher ground	+ 1
Observers are reconnaissance troops	+ 2
Observing from the air	+ 2
Unit warned by friends	+ 2
Airborne FLIR* v. vehicles in woods	+ 3

Results: Score of 9 or over – enemy located. Otherwise no sighting.

## Communications

Communications normally follow the chain of command i.e. each unit communicates with its immediate superior and its immediate subordinate units. In some special cases communications links may be set up between units that are not part of the same command structure (e.g. artillery airborne spotters, or units that have been temporarily assigned to a different HQs). These must be declared at the start of the game.

In order to pass a message from, say, 1<sup>st</sup> Battalion to 3<sup>rd</sup> Battalion, the message must first go to Regimental HQ who will then pass it on to HQ 3<sup>rd</sup> Battalion. This involves two steps. There is no direct link between the two battalions. Count up the number of steps the message must travel and roll a D6. The score indicates the number of steps the message will travel in the current bound. If the number rolled is insufficient for the number steps to be travelled then the message will continue on the following bound until it arrives. Any reply will need to come back by the same route.

Note that artillery observers are deemed to have a direct link with their parent batteries and requests for air support are handled as per the air support rules.

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\* Forward Looking Infra-Red seekers, pick up heat emissions from running engines and other hot spots.

## Direct Fire

All MBTs may fire twice in a bound provided that they remain stationary. MBTs may move up to half a bound and fire once, or move a full bound and fire once with a deduction from the D6 roll. Other vehicles mounting guns of 35mm calibre or less may fire three times, or once having moved up to half a bound. Vehicles equipped with rapid-fire cannon or machine guns may fire three times, but take the deduction if they move at all.

Artillery pieces may carry out direct (line-of-sight) fire provided they are stationary for the entire bound. Maximum range for direct artillery fire is 3,000 metres.

### Method

Roll a D6 for each shot from each vehicle. E.g. 6 tanks firing, stationary the whole bound, count 12 shots, thus 12 dice. Any D6 that equals or betters the required roll scores a hit. Roll all hits for kill chances as below. One kill destroys one vehicle .

<u>Group A</u>	British 120mm L30; German 120mm
<u>Group B</u>	British 120mm L11; Russian 125mm; Chinese 125mm; French 120mm
<u>Group C</u>	British 105mm L7; Russian 115mm; Chinese 115mm
<u>Group D</u>	French 105mm; US 90mm; British 90mm; Russian 100mm, Chinese 100mm
<u>Group E</u>	British 76mm; Russian 73mm; US 76mm

### Hit Chances

	<u>Up to 1000m</u>	<u>Up to 2000m</u>	<u>Up to 3000m</u>	<u>Up to 4000m</u>
Group A	3/4/5/6	4/5/6	4/5/6	5/6
Group B	3/4/5/6	4/5/6	5/6	6
Group C	4/5/6	5/6	6	-
Group D	4/5/6	6	-	-
Group E				
Autocannon	4/5/6	5/6	-	-

### ATGW

Milan	5/6	5/6	5/6	-
Sagger	5/6*	5/6	6	-
Spandrell	5/6*	5/6	6	6
TOW	5/6*	5/6	6	6
Dragon	5/6	-	-	-

### Tactical Factors

Target in cover or hull-down	-1 to D6 roll
Target moved over ½ bound	-1 “ “
Firer moved over ½ bound (not ATGW)	-1 “ “
Vehicle firing under artillery fire	-1 “ “
Operator in open under artillery fire	-2 “ “
ATGWs firing over friendly vehicles	-1 “ “

Anti-Tank Guided Weapons (ATGW) i.e. wire-guided missiles, can only be fired from a stationary position and the firer must remain stationary for the entire bound. ATGW launchers fire only once in a bound. This also applies to man-portable ATGWs. Note that all ATGWs have a *minimum range* below which it is not possible to “gather” the missile to the operator’s control. This minimum range is generally 500 metres. ATGW may not fire through friendly vehicles that are positioned between them and their targets unless either the firer or the target is uphill of the friends. There is a minus tactical factor for firing ATGW over moving friends, due to the amount of dust and exhaust smoke produced by moving vehicles.

## Kill Conversions

### Target Groups

<u>Group 1</u>	British Challenger 2
<u>Group 2</u>	US Abrams; Leopard 2; British Challenger 1; British Chieftain
<u>Group 3</u>	Russian T90, T80, T72; Chinese Type 85, 80; French Leclerc; Improved Centurion; Israeli Merkava;
<u>Group 4</u>	Russian T64; T62; Chinese Type 69; US M60; Centurion 13; French AMX 30;
<u>Group 5</u>	Russian T55, 54; US M48; Chinese Type 59;
<u>Group 6</u>	All light tanks, armoured cars, APCs, MICVs, etc.

	<u>Up to 1000m</u>	<u>Up to 1500m</u>	<u>Up to 2000m</u>	<u>Up to 2500m</u>	<u>Up to 3000m</u>	<u>Up to 4000m</u>
<u>Group A</u>						
v. Group 1	4/5/6	5/6	5/6	5/6	6	6
v. Group 2	4/5/6	4/5/6	5/6	5/6	5/6	6
v. Group 3	4/5/6	4/5/6	4/5/6	5/6	5/6	5/6
v. Group 4	4/5/6	4/5/6	4/5/6	4/5/6	5/6	5/6
v. Group 5	3/4/5/6	4/5/6	4/5/6	4/5/6	4/5/6	5/6
v. Group 6	All but 1	All but 1	All but 1	All but 1	3/4/5/6	3/4/5/6
<u>Group B</u>						
v. Group 1	4/5/6	5/6	5/6	6	6	6
v. Group 2	4/5/6	5/6	5/6	5/6	6	6
v. Group 3	4/5/6	4/5/6	5/6	5/6	5/6	6
v. Group 4	4/5/6	4/5/6	4/5/6	5/6	5/6	5/6
v. Group 5	3/4/5/6	4/5/6	4/5/6	4/5/6	4/5/6	5/6
v. Group 6	All but 1	All but 1	All but 1	3/4/5/6	4/5/6	4/5/6
<u>Group C</u>						
v. Group 1	4/5/6	5/6	6	6	6	-
v. Group 2	4/5/6	5/6	6	6	6	-
v. Group 3	4/5/6	5/6	5/6	6	6	-
v. Group 4	4/5/6	4/5/6	5/6	5/6	6	-
v. Group 5	3/4/5/6	4/5/6	5/6	5/6	5/6	-
v. Group 6	All but 1	All but 1	3/4/5/6	3/4/5/6	4/5/6	-
<u>Group D</u>						
v. Group 1	5/6	5/6	6	6	-	-
v. Group 2	5/6	5/6	5/6	6	-	-
v. Group 3	5/6	5/6	5/6	5/6	-	-
v. Group 4	4/5/6	5/6	5/6	5/6	-	-
v. Group 5	4/5/6	4/5/6	5/6	5/6	-	-
v. Group 6	3/4/5/6	4/5/6	4/5/6	5/6	-	-
<u>Group E</u>						
v. Group 1	6	6	-	-	-	-
v. Group 2	6	6	-	-	-	-
v. Group 3	5/6	6	-	-	-	-
v. Group 4	5/6	5/6	-	-	-	-
v. Group 5	5/6	5/6	-	-	-	-
v. Group 6	4/5/6	5/6	-	-	-	-

### Autocannon (up to 35mm calibre)

Group 6 only:	5/6	6
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ATGW

*Milan/Dragon/Sagger*

v. Group 1	6
v. Group 2	5/6
v. Group 3	5/6
v. Group 4	4/5/6
v. Group 5	3/4/5/6
v. Group 6	All but 1

*TOW/Spandrell*

v. Group 1	5/6
v. Group 2	5/6
v. Group 3	4/5/6
v. Group 4	4/5/6
v. Group 5	3/4/5/6
v. Group 6	All but 1

## Artillery Fire

### Indirect Ranging

On-table artillery may use direct fire if within 3,000m of the target, as well as firing indirectly. Off-table artillery may only fire indirectly. Maximum ranges of modern artillery pieces are such that they are considered to be able to hit any part of the playing surface.

An observer, who must have a clear line-of-sight to the target area and be within 3,000M, must direct all indirect fire. The observer must be stationary throughout the bound. There can be only one observer per battery. Such observers may be provided by:-

- A reconnaissance unit HQ.
- A battalion or higher formation HQ
- Any unit HQ that has been so designated at the start of the game.

Place the centre of the blast area template over the designated target. Roll a single D6 for ranging. Roll 5 or 6 to range. If the ranging fails on the first roll, and the weapon fires more than once per bound, keep rolling until all available rounds are expended. The battery may fire however many rounds of firing are left once ranging has succeeded.

Blast areas (per 4 guns):		<u>Rounds per bound</u>
105mm	70mm x 70mm	4
122mm	70mm x 70mm	4
152mm	80mm x 80mm	3
155mm	80mm x 80mm	3
203mm	100mm x 100mm	2

Roll 5/6 for hits.

#### Tactical Factors (add or subtract from D6 roll)

Target dug-in	-2
Firers under counter-battery fire	-1
Target moved 30 cm or more	-1

#### Kill Conversions:

105mm v MBTs	-
122mm v MBTs	6
152/155mm v. MBTs	5/6
203mm v MBTs	4/5/6
105mm v Light Armour	6
122mm v Light Armour	5/6
152/155mm v Light Armour	4/5/6
203mm v Light Armour	3/4/5/6
105mm v Softskins	4/5/6
122mm v Softskins	3/4/5/6
152/155mm v Softskins	3/4/5/6
203mm v Softskins	All but 1
105mm v Infantry	4/5/6
122mm v Infantry	4/5/6
152/155mm v Infantry	3/4/5/6
203mm v Infantry	All but 1

### Pre-ranged Indirect Fire

Troops in defensive positions may pre-range their artillery on any given spot. The player simply lays a counter at the beginning of the game. Thereafter he may bring down fire from the designated battery on that spot at any time without the need to range again. It is permissible for the defending player to place dummy counters to confuse his opponent, provided that the live counter is clearly marked on its underside.

### Smoke

Smoke may be laid by artillery, mortars or from on-board smoke dischargers. Use the relevant artillery template to determine the frontage laid. Depth is sufficient to effectively mask movement of vehicles. Dischargers lay sufficient smoke to cover three times the frontage of the vehicle.

## Infantry Action

Infantry are organised into “elements”, each representing a section or squad of 10 – 12 men. Elements must be combined into platoons, companies and battalions according to the prototype army organisation.

### Capacities of APC/MICVs

APC/MICVs can transport the number of elements shown (*see vehicle data appendix for classification of individual vehicles*):

Small	- 2 elements.
Medium	- 3 “
Large	- 4 “

In addition to personal and squad weapons, infantry are assumed to be armed with short-range anti-tank weapons (RPG7, LAW etc) and shoulder-launched light AA missiles (Stinger, Blowpipe, Strella).

AT weapons are assumed to be issued on a scale of 1 per three infantry elements (see Direct Fire). AA weapons are issued one per company HQ.

Ranges are:	short-range anti-tank weapons	-	100 metres.
	Shoulder-launched AA weapons	-	1000 metres.

### Infantry v. Infantry

Any infantry within 500 metres of enemy infantry may initiate combat. Roll 1 D6 for each element involved on each side. Add or subtract from each D6 roll as appropriate:

Own troops defending cover or dug-in	-	+1
Own troops supported by armour	-	+1
Own troops under mortar or artillery fire	-	-1

Each side suffers the loss of one element for each modified 5 or 6 rolled by their opponents. The winner is the side that inflicts most losses. The losers’ survivors will fall back one move and check morale.

### Infantry v Armour

Any infantry not in cover or dug-in must check morale if enemy armour advances to within 500 metres of their position.

Infantry may engage armour at range using ATGWs if they possess them (see Direct Fire).

Where armour contacts infantry the foot soldiers may use their short-range AT weapons first, before any action by the enemy armour (even in the enemy’s bound). The armour must then check morale. If the armour’s morale holds the infantry will break and retire a full move or to cover. If the infantry is contacted for a second move it will break and disperse.

### Definitions

#### Cover.

Cover is defined as a coherent obstacle, proof against small-arms fire, e.g. walls, buildings, sandbags etc.

#### Supported

A unit offers support to a friendly unit if it is within 20cm of that unit, within sight and able to bring fire to bear on an enemy attacking the supported unit.

## Morale

Units can be graded for morale as follows:

Inferior Unit

Conscripts, disaffected troops, second or third echelon troops.

Ordinary Unit

The vast bulk of soldiery.

Superior Unit

Elite, veteran or picked soldiers.

Morale must be checked under the following circumstances:

1. When any unit falls below 50% of its original strength.
2. When any unit loses 20% of its strength in any bound.
3. When a unit of the same brigade/regiment fails a morale test.

Roll 1 D6. Add or subtract:

For each previous morale check	- 1
Strength below 50%	- 1
Unit dug-in	+1
Inferior unit	- 1
Superior unit	+1

Read off result below:

- |   |  |
|---|--|
| 0 | Disperse. Take no further part in the action.  |
| 1 | Fall back to the nearest defensive position or cover. Disperse. Infantry on foot go to ground. |
| 2 | Halt and attempt to reply to enemy fire. Infantry on foot take cover or go to ground.          |
| 3 | As for 2.  |
| 4 | Carry on.  |
| 5 | Carry on.  |
| 6 | Carry on.  |

## Air Support

Both sides may roll for air strikes once in every bound. Available missions would normally consist of 2 or 3 aircraft models arriving simultaneously in one bound. Roll 5 or 6 to successfully call in an air strike. Roll a second time to determine what turns up (obviously, the aircraft available will depend on the conflict being gamed).

All aircraft will enter from the table edge to the rear of their own ground forces. An air strike consists of a single pass across the table, in a straight line, exiting at any of the other three table edges. Lay a tape measure across the table and place the aircraft model(s) at the aim-point of its run. Carry out all firing of SAMs and AAA against the aircraft by launchers/guns within 1,000m of the flight path.

If the aircraft survives, place the relevant blast area template ahead of the aim point and roll for hits on any targets wholly or partially within the blast area. (*For kill chances see table below.*)

Bomb blast area = 70 x 140 mm    Strafing area = 50 x 200 mm  
“Fire & forget” missiles e.g. Maverick – treat as ATGW, but aircraft need come no closer than 2000m. to target.

Convert hits to kills by rolling again, thus:

MBTs	-	5/6
Light armour	-	4/5/6
Soft skins, infantry, towed artillery	-	All but 1

Tactical factors (add to or deduct from D6 roll)

Strafing with 20mm or less cannon v. MBTs	-	-1
Infantry dug-in	-	-2

### SAMs and AAA

Any SAM (Surface to Air Missile) or AAA (Anti-Aircraft Artillery) unit within 1,000m of an enemy aircraft's flight path may engage (even on an enemy bound). Any surface to air system must be stationary in order to engage aircraft. Roll for each vehicle/launcher as follows\*:

ZSU 23-4 Shilka, M163 Vulcan; Gepard	-	5/6
SAM 6 Gainful; Chapparell, Rapier, Crotale, Roland, Hawk	-	6
SAM 7/9; Stinger; Blowpipe; Javelin	-	6
Heavy machine-gun	-	5/6

Convert as follows:

Roll 1 D6 and add the score to these standard damage values,		
Shilka; M163	-	15
Gepard		20
Gainful; Hawk; Rapier; Crotale; Roland; Chapparell	-	35
SAM 7/9; Stinger; Blowpipe; Javelin	-	20

Deduct the total damage values from all sources from the aircraft's defence value\*.

F4 Phantom; F7 Corsair; A8 Intruder;	-	35
A10 Thunderbolt II	-	55
F15 Strike Eagle; Tornado GR1; Buccaneer	-	40
Mirage; F16 Falcon; Jaguar	-	25
Skyhawk	-	20
Su 7, 9 or 19	-	35
MiG 23/27 Flogger	-	30
MiG 21, Ouragon; Super Mystere; Harrier	-	25
MiG 15; Mig 17; Alpha Jet; BAe Hawk	-	20
Yak 28 (Firebar/Brewer); F111 Aardvark	-	50

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\* Deduct -1 for firing at helicopters.

Any aircraft suffering more damage points than its defence value will be shot down before making its attack. Any aircraft suffering the loss of more than 50% of its defence value will lose the lowest of its attack factors, e.g. an aircraft attacking at 5 or 6 will lose the 5 and score hits only for the sixes.

\* Half any score from a radar-guided unit forced to close down its radar.

### Anti-Radiation Missiles

These are specialist missiles developed to deal with radar-guided AAA. Once launched the missile homes on to any radar equipment that is active and will usually hit unless the radar is switched off. It is normal practice to fire a pair of missiles, one anti-radiation, one TV guided, so that whatever the target does one missile will hit.

In such a situation roll a D6 for each missile fired. Score 4/5/6 to hit with TV missile, all but 1 to hit with the ARM if the radar is still active.

### Electronic Counter Measures

Electronic Counter Measures (ECM) may be carried out by specially modified aircraft such as the EF111 or the Yak 28 Brewer E. Their effect is to jam all battlefield radars operating within a given radius of the aircraft. In practice, this means the entire playing surface.

### Laser Designation

Certain pre-nominated infantry units may be allocated laser designators. They may “paint” a given target for attacking aircraft. Provided the infantry are not under fire, and there is no smoke intervening between designator and target then a hit will be automatic.

### Helicopters

Helicopters have many advantages in modern warfare including the ability to hover, to fly “nap-of-the-earth” (i.e. taking advantage of all contours and vegetation) and to adopt “pop-up” tactics to confuse enemy AAA. Helicopters fall into three main types:

1. Scout machines. These are light, agile craft whose job is to seek out the enemy and report his positions. These machines may or may not be unarmed.
2. Attack helicopters. These are heavily armed machines optimised for anti-tank or anti-infantry roles. A typical armament may consist of guided anti-tank missiles, pods of unguided rockets, and usually some form of rapid-fire cannon.
3. Transport or general-purpose helicopters. These can be smaller types, useful for logistical support, VIP transport or medical evacuation, or much larger examples used for insertion of large forces of ground troops, for ferrying cargo or even lifting light vehicles.

### Movement

All helicopters may move from zero to 150cm per bound.

No helicopter model may remain on the playing surface for more than five consecutive moves.

Attack helicopters function like vehicles. If they wish to fire missiles they may do so by using pop-up tactics (i.e. they may hover below the line of a crest, rise just long enough for the missile to acquire its target, and then dip down behind the ridge again. Treat such firing as for ATGW.

If they wish to fire autocannon or unguided rockets they must have line of sight to the target. Treat as aircraft strafing.

Transport machines picking up or setting down ground troops require half a move to perform either operation.

## Vehicle Data.

<u>British</u>	<u>Cross Country</u>	<u>Road</u>	<u>Main Armament</u>	<u>Carrying Capacity</u>
Challenger 2	35	52	120mm L30	
Challenger 1	35	52	120mm L11	
Chieftain	30	45	120mm L11	
Vickers	32	46	105mm L7	
Scorpion/Scimitar family	50	75	76mm/30mm Rarden	
Spartan APC	50	75	MG	Small
Centurion 13	21	32	105mm L7	
Warrior MICV	47	70	30mm Rarden	Small
FV432 family	32	49	MG	Medium
Fox armoured car	65	98	30mm Rarden	
Saxon APC	60	90	MG	Medium
Saladin a/c	45	68	76mm	
AS90 SPG	34	52	155mm	
Abbot SPG	30	45	105mm	
AS90 SPG	34	51	155mm	
<u>Chinese</u>				
Type 85 MBT	35	53	125mm	
Type 80 MBT	40	60	105mm	
Type 69 MBT	31	47	100mm	
Type 59 MBT	31	47	100mm	
Type 62 Light Tank	37	55	85mm	
Type 63 Light Amphibious Tank	40	60	85mm	
Type 90 APC	42	62	HMG	Medium
YW 531 H APC	41	61	HMG	Medium
YW 531 C APC	41	61	HMG	Medium
Type 77 APC	38	56	HMG	Large
WZ 523 APC	50	75	HMG	Medium
WZ 551 APC	56	84	25mm Cannon	Medium
PLZ45 SPG	35	52	155mm	
Type 83 SPG	34	52	152mm	
Type 85 SPG	37	56	122mm	
Type 70 SPG	35	52	122mm	
<u>French</u>				
Leclerc MBT	45	68	120mm (French)	
AMX 30	41	60	105mm (French)	
AMX 13	38	56	90mm or 76mm depending on mark.	
AMX VCI MICV	38	56	MG	Medium
AZMX-10P APC	41	60	20mm cannon	Small
Panhard VBL scout car	59	89	Milan launcher	
Panhard M3 APC	59	89	MG	Medium
Panhard AML a/c	59	89	90mm	
Panhard ERC heavy a/c	59	89	90mm	
AMX-10RC recce vehicle	53	80	90mm	
Renault VAB APC	58	87	MG	Medium
GIAT 155mm SPG	38	56	155mm	
GIAT 155mm Mk F3 SPG	38	56	155mm	
GIAT Caesar 155mm SPG	69	103	155mm	
<u>German</u>				
Leopard 2	45	68	120mm (German)	
Leopard 1	41	61	105mm L7	
Marder MICV	41	61	20mm cannon	Small

Jagdpanzer Jaguar 1 SP	44	66	HOT ATGW	
Wiesel 2 Airportable AFV	44	66	MG	Small
Weisel 1 “ “	44	66	TOW or 20mm cannon	
Dingo APV	56	84	MG	
Spahpanzer Luchs	56	84	20mm cannon	
KMW 155mm PzH 2000 SPG	38	56	155mm	
<u>Israeli</u>				
Merkava Mk 3	29	44	120mm	
Merkava Mk 1	29	44	105mm	
Improved Centurion	21	32	105mm	
M3 half-track	30	45	MG	
Super Sherman	30	45	105mm (French)	
Isherman	30	45	76mm	
Soltam SPG	20	30	155mm	
<u>Russian</u>				
T90	38	56	125mm SB	
T80B	44	66	125mm SB	
T64	38	56	125mm SB	
T72	38	56	125mm SB	
T62	31	47	115mm SB	
T55/54	31	47	100mm	
PT 76 light tank	28	41	76mm	
MT-LB multi-purpose vehicle	38	57	MG	
BMP-3 MICV	44	66	100mm	Small
BMP-2 MICV	41	61	30mm cannon	Small
BMP-1 MICV	41	61	73mm	Small
BMD-3 airborne combat vehicle	44	67	30mm cannon	Small
BMD-1 “ “ “	44	67	73mm	Small
SO-120 SPH/Mortar	38	56	120mm mortar	
BRDM-1 scout car	50	75	MG	
BRDM-2	63	94	HMG or various ATGW	
BTR-40 APC	50	75	MG	Small
BTR-50	60	90	HMG	Large
BTR-90 APC	47	70	MG	Large
BTR-90 APC	63	94	30mm cannon	Small
BTR-80 APC	56	84	HMG	Small
BTR-70 APC	50	75	HMG	Medium
BTR-60PB APC	50	75	HMG	Large
240mm SPM M1975	38	56	240mm mortar	
203mm M1975 SPG	38	56	203mm	
152mm 2S19 SPG	38	56	152mm	
152mm 2S5 SPG	39	59	152mm	
152mm M1973 SPG	38	56	152mm	
122mm M1974 SPG	38	56	122mm	
<u>USA</u>				
M1 Abrams	42	63	120mm (early versions had 105mm)	
M60A3	30	45	105mm	
M48A5	30	45	105mm	
M41 light tank	45	68	76mm	
M2 Bradley	38	57	25mm cannon + TOW	
M113 variants	38	57	MG + other weapons depending on variant.	Medium
M901 Improved TOW vehicle	42	64	TOW	
AAV7A1 marine combat vehicle	40	60	HMG	Large
Cadillac Gage ASV 150	63	95	40mm grenade launcher	

Dragoon AFV	72	108	20mm cannon (or 90mm gun)	Small
M1114	78	117	HMG	
M110 203mm SPG	35	53	203mm	
M107 175mm SPG	35	53	175mm	
M109A2 155mm SPG	35	53	155mm	

### **Aircraft Details**

#### Bombing

A-7 Corsair;  
A-6 Intruder;  
A10 Thunderbolt II;  
Buccaneer;  
F4 Phantom,  
F15 Strike Eagle;  
F/A18 Hornet;  
F105 Thunderchief;  
F111 Aardvark;  
Sukhoi 19;  
Tornado GR1; - 3,4,5,6

A4 Skyhawk;  
F16 Falcon;  
Jaguar;  
MiG 23/27;  
Sukhoi 7,9, or 11;  
Yak 28; - 4/5/6

Hunter;  
Harrier;  
Mirage;  
Mystere;  
Ouragan;  
Super Mystere; - 5/6

Alpha Jet;  
BAe Hawk;  
MiG 15;  
MiG 17; - 6

#### Strafing

A10 - 3,4,5,6

All aircraft with 30mm plus cannon - 4,5,6

All aircraft with 20mm plus cannon - 5,6

## **Abbreviations**

AAA	Anti-aircraft artillery
APC	Armoured personnel carrier
ATGW	Anti-tank guided weapons i.e. wire-guided missiles.
LAW	Light Anti-tank Weapon (man-portable AT missile).
MBT	Main battle tank
MICV	Mechanised infantry combat vehicle
RPG7	Soviet-designed light AT weapon.
SAM	Surface to Air Missile
SB	Smooth Bore (Gun)
SPG	Self-propelled gun
SPH	Self-propelled howitzer