

ADVANCED MISSILE COMBAT SYSTEM

By Bill Gant, November 2001

HårnMaster 2nd edition's missile combat system works reasonably well, but in my experience I have found that it tends to downplay the deadliness of missile weapons, particularly arrows. If you are looking for a little more sophistication, then give the following advanced rules a go...

MISSILE ATTACK SEQUENCE

The missile sequence is used when a character fires or throws a missile as a result of selecting a missile attack ACTION OPTION.

1. ATTACK DECLARATION

The Attacker may fire/throw a missile at any target in *Line of Sight*. The missile-caster declares the Target, Missile Weapon and Aiming Zone (High, Mid or Low). If no Aiming Zone is declared, the default is MID Zone.

2. DEFENCE DECLARATION

The defensive options available depend on whether the target is aware of the attack and the Velocity of the missile. Device-propelled missiles (e.g. arrows, quarrels and slingstones) are **High-Velocity (HV)** missiles; thrown projectiles are **Low-Velocity (LV)**.

An *unengaged* target is generally considered *aware* of any attack. However, the GM may request a test of *Awareness* in conditions of poor visibility, ambush, surprise, or when the target is busy performing a task requiring concentration. Targets *engaged* with another enemy are generally *unaware* of a Missile Attack, but again an Awareness test can be made if there is doubt.

BLOCK: The target's shield, weapon or other object may block an incoming missile, whether by chance or by design. There are two types of block: An *Active Block* is an attempt by the target to intercept the missile with a blocking shield, weapon or other object. A *Passive Block* occurs when the missile strikes the shield or weapon without any effort on the part of the target (i.e. by accident). Only one shield, weapon, etc, is designated as the blocking object (usually the best).

- An engaged target or one unaware of the incoming missile may not *actively* block, but may *passively* block if equipped with a shield, weapon or other appropriate object.
- The EML used for an *active* missile block is the applicable weapon skill. It is modified according to the type of shield (or object) being used; larger shields are better. EML may also be modified by whether the missile is High- or Low-Velocity. Modifiers are read from the BLOCK TL / EML table.

MISSILE ATTACK SEQUENCE

1. Attack Declaration
2. Defence Declaration
3. EML Calculation
4. Attack Resolution
5. Strike Location
6. Strike Impact / Injury

LINE OF SIGHT

If a straight line can be drawn to the target that does not pass through any part of another character's hex, and is not blocked by a physical obstacle, such as a building or higher ground, the target is in Line of Sight.

An archer may fire over a friendly or enemy character to hit a screened target, provided the target is further away from the obstacle than the firer is to the obstacle. That is, if the obstacle is three hexes from the firer, the target must be at least three hexes from the obstacle.

BLOCKING OBJECTS

Any object may block incoming missiles. The GM might allow a character carrying a barrel, for example, to consider it the equivalent of a kite shield for the purpose of a passive block, at least.

BLOCK TL / EML			
Shield	Passive Block	Active Block EML	
	TL	LV	HV
Tower	35	ML+20	ML-10
Kite	30	ML+15	ML-15
Knight	25	ML+10	ML-20
Round	25	ML+10	ML-20
Buckler	15	ML+0	ML-30
Other	--	ML-30	ML-60

☐ CATCHING MISSILES

The target may attempt to catch a **Low-Velocity** missile using *half* of (Unarmed Combat EML -30) with the BLOCK table - a successful Block is a catch. Any Strike result has a 50% chance of striking the blocking hand/arm; otherwise, the missile strikes the targeted zone.

DODGE: A target *aware* of the attack can attempt to evade a Low-Velocity missile at full Dodge, or a High-Velocity missile at 50% Dodge.

IGNORE: If the target is unaware of the attack, the **IGNORE** defence is automatically selected. It may also be used by a brave target, aware of the attack, who wishes to impress someone (like an embalmer). This defence does not involve a Defender roll. If a strike occurs (MS/CS), the body location struck may still be protected by passive cover, such as from a tree or wall.

3. EML CALCULATION

The basic skill for casting a missile is the applicable weapon **EML**. Any thrown item that does not have a specific skill uses *Throwing* skill. A javelin, for example, is thrown with *Javelin* skill, while a rock, tankard of ale or tree branch would use *Throwing*. EML is adjusted by whichever of the following modifiers apply, all of which are cumulative.

PHYSICAL PENALTY & ENCUMBRANCE: Injury, Fatigue and Encumbrance penalties are subtracted from ML. If the character is not very active, the GM may allow *half* the Encumbrance penalty for missile firing.

AIMING ZONE: The default Aiming Zone is Mid (no penalty), but aiming at the High or Low Zone attracts a -10 penalty.

RANGE: The accuracy and impact of missile weapons depends on missile type and range. These effects are noted on the ADVANCED MISSILE DATA TABLE.

ATTACKER MOVING OR MOUNTED: If the Attacker is moving or mounted, apply a penalty of EML -10 or more, to a maximum of -40.

TARGET MOVING: If the target is moving, a penalty equal to the target's Dodge SI is applied. See sidebar.

CROSS WIND: If the windforce is greater than 1 and is neither a tail wind nor a head wind, subtract 10×Windforce from EML.

HEAD/TAIL WIND: The GM may modify the effective range by increasing it by one (e.g. Medium becomes Long) for a *head* wind, or decreasing it by one for a *tail* wind.

TARGET SIZE: Modify EML by target size as follows:

Tgt Height	1'/less	2'/less	4'/less	6'/less	8'/less	16'/less	32'/less
EML	-20	-15	-10	+0	+10	+15	+20

There is no modifier for man-sized targets, unless they offer a smaller effective target. A prone man, for example, presents a target about 2 feet tall, and a crouching man about 4 feet tall. Similar height adjustments may apply to other targets at GM discretion.

ENVIRONMENT: Mist, rain, smoke, darkness, etc, have a significant effect on missile accuracy, especially at longer ranges. The GM may assess a special penalty as follows:

Range	Definition	Penalty
Short	Eyesight ×2 hexes or less	ML-10
Medium	Eyesight ×4 hexes or less	ML-20
Long	Eyesight ×8 hexes or less	ML-40
Extreme	Beyond Eyesight ×8 hexes	Impossible

TARGET MOVEMENT

If the target is stationary, there is no modification.

If the target is moving about, such as in battle, the Attacker suffers a Target Movement penalty equal to the target's **Dodge SI**. This is regardless of whether the target is aware of the incoming missile, and may be combined with any of the three Defence options (i.e. Block, Dodge or Ignore).

ADVANCED MISSILE DATA TABLE

The ADVANCED MISSILE DATA TABLE (at the end of this article) shows the EML and Impact values for each range bracket (e.g. Short range) for a particular weapon.

For example, the EML penalty for a *Shorkana* at 4-6 hexes range is -20 (Medium range), but at 7-12 hexes, the penalty is -40 (Long range).

RESTRICTED TRAJECTORY

Ranges for most missile weapons assume they can be fired/cast on a rising trajectory, but this may not be possible in a dense wood, narrow passageway, etc. Extreme and Long range fire in such situations should be prohibited, and Medium range fire should attract a special penalty of 10-20.

BOWS & PRECIPITATION

Wet bowstrings lose their tautness and are easily ruined if the bow is strung. When rain strikes, professional arches commonly unstring their bow and keep the bowstring dry by rolling it up and storing it under their helmet.

If an archer does not mind risking a bowstring, a bow can be fired during rain. Bowstrings have a WQ of 9. Test this WQ after each shot.

Remember: There is also an Environment penalty of -10 to -40 on the archer to reflect reduced visibility in rain.

BOWS & AIR TEMPERATURE

Very cold (wooden) bows often shatter when drawn. If the air temperature is freezing, archers who attempt to fire their bow must first make a Weapon Damage Check to see whether the bow remains intact when drawn.

4. ATTACK RESOLUTION

The Attacker and the Defender must make a 1d100 skill roll against their appropriate EML. Results are read from the ADVANCED MISSILE ATTACK TABLE.

ADVANCED MISSILE ATTACK TABLE

DEF ►		BLOCK				DODGE				IGNORE	◄ DEF
		CF	MF	MS	CS	CF	MF	MS	CS	No Roll	
ATTACKER	CF	Wild	Wild	Wild	Wild	Wild	Wild	Wild	Wild	Wild	ATTACKER
	MF	●	●	●	●	●	●	●	●	●	
	MS	M★2	<u>M★2</u>	Block	Block	M★2	<u>M★2</u>	●	●	<u>M★2</u>	
	CS	M★2	M★2	<u>M★2</u>	Block	M★2	M★2	<u>M★2</u>	●	M★2	

WILD: If the missile weapon is being thrown, a Fumble roll is required. If the weapon is a device (e.g. bow), roll for weapon damage against WQ:

WQ failed by 1-3 points: The bowstring (or sling thong) has snapped or stretched out and is now useless. No missile is fired and the weapon must be re-strung (or in the case of a sling re-wound) before it can be used again.

WQ failed by 4+ points: No missile is fired and the bow (if applicable) loses 10 pounds of Draw Weight due to unusual stress. If the weapon is a sling, treat as a WQ failure by 1-3 points. In extreme cases (15% chance), the bow stave (or the tiller or bow of a crossbow) snaps.

If the Fumble roll or weapon damage check succeeds, the shot is *wild*. The GM randomly chooses the nearest character (friendly or enemy) and treats the wild shot as a missile attack on that character (50% chance of striking).

● **MISS:** The missile misses the target, but may strike a nearby secondary target. If applicable, there is a 20% chance the missile has struck an adjacent character to the left (odd) or right (even). If the target is mounted, a Miss gives a 20% chance of the steed being struck (or the rider being struck if the steed is the target).

BLOCK: The missile strikes the Defender's blocking shield or weapon. Check for weapon damage to the blocking weapon if the missile's base Impact is five (5) or greater.

See the Optional Rule in the sidebar regarding Passive Shield Blocks.

★ **STRIKE:** The missile strikes the target. Roll 2d6 and add the missile's base Impact (according to range) to determine Strike Impact.

See the Optional Rule in the sidebar if the striking missile was *thrown*.

UNARMED BLOCKS

If blocking a missile with a body part, the Block attempt is made at EML -30 for Low-Velocity missiles, -60 for High-Velocity. A successful Block is treated as a (★2) strike on the blocking body part (e.g. hand or forearm).

If the Defender rolls CS when blocking with a body part, the missile is deflected harmlessly instead of being a strike on the blocking body part.

□ PASSIVE SHIELD BLOCKS

If a shield *passively* (instead of *actively*) blocks a missile weapon, the missile may penetrate it and harm the Defender. Treat a WQ10 shield as having APVs of B10 E8 P6 F10, increasing or decreasing the APVs by 1 per WQ point above or below 10. For example, a WQ13 shield would have the following APVs: B13 E11 P9 F13.

Missile Strike Impact is the same as for a strike against an Ignore defence.

If the missile does penetrate the shield, a weapon damage check is also required.

□ MAXIMUM THROWN IMPACT

For thrown weapons *only*, the maximum roll from any **M★2** strike (not **M★2**) is the thrower's **Skill Index**. For example, if the thrower obtained a **M★2** strike and his SI was 7, the highest roll achievable on 2d6 is 7 - any higher result must be re-rolled.

For every 10 points that the thrower sacrifices from EML, the thrower's SI is considered to be one level higher for purposes of determining maximum impact.

5. STRIKE LOCATION

Generate the Strike Location for the MID (default), HIGH or LOW Zones as appropriate, by rolling 1d100 and consulting the MISSILE STRIKE LOCATION TABLE below.

PASSIVE COVER: If the GM feels all or part of the target is behind cover (e.g. tree, wall, etc), the PASSIVE COVER GUIDE (at the end of this article) may be used to determine whether the missile strikes the intervening object instead of the target.

If the target is protected by multiple covers (e.g. light woods, heavy undergrowth and a 4' wall), apply whichever single value is greatest.

In some cases (such as with Passive Shield Blocks - see above), the missile might penetrate the covering item and still hit the target, though with lesser impact. The level of protection is determined at GM discretion.

☐ ZONE TARGETING

If the Attacker rolls equal to or less than *half* EML, a Substantial Success is achieved. If the roll is above half EML but equal to or less than full EML, a Normal Success is achieved.

Normal MS: The missile strikes the MID Zone, regardless of which Aiming Zone was actually targeted.

Normal CS / Substantial MS: The missile strikes the Aimed Zone.

Substantial CS: The missile strikes a specific Body Zone (Head, Arms, Torso or Legs) rather than just High, Mid or Low. Strike Location is generated in some convenient manner for the Body Zone within the Aiming Zone.

MISSILE STRIKE LOCATION TABLE

AIMING ZONE			STRIKE LOCATION
HIGH EML -10	MID EML +0	LOW EML -10	
01 - 15 16 - 28 29 - 39	01 - 03 04 - 06 07 - 08	• • •	SKULL FACE † NECK
40 - 54 55 - 64 65 - 68 69 - 73 74 - 76	09 - 16 17 - 24 25 - 27 28 - 32 33 - 34	• 01 - 02 03 - 04 05 - 09 10 - 14	• SHOULDER • UPPER ARM • ELBOW • FOREARM • HAND
77 - 90 91 - 96 97	35 - 53 54 - 72 73	15 - 19 20 - 33 34 - 35	THORAX ABDOMEN GROIN
98 - 00 • • • •	74 - 85 86 - 93 94 - 95 96 - 99 00	36 - 51 52 - 76 77 - 84 85 - 97 98 - 00	• HIP • THIGH • KNEE • CALF • FOOT
† FACE: 01 - 15 Jaw 66 - 80 Nose 16 - 30 • Eye 81 - 90 • Ear 31 - 65 • Cheek 91 - 00 Mouth			• ODD Roll = Left • EVEN Roll = Right

The Tale of Alberon

Once upon a time a shepherd called Alberon was tending his flock, when a smallish dragon dropped by for lunch. The beast circled the pasture, panicking the sheep, and prepared to swoop down on a lone ewe. Alberon, a brave lad and a pretty good archer, sought to protect his flock. He jumped up to distract the beast, which rewarded his effort by swooping towards him instead. With amazing coolness, he drew his bow and neatly put an arrow in the beast's eye at a mere fifty yards. As he was admiring the shot, it occurred to Alberon that this beast, while clearly as dead as a large, scaly doorknob, was still doing a pretty fair clip straight at him. Alberon had just enough time to mutter "Oops" when several hundred pounds of dragon meat landed atop him with great impact. The moral, of course, is - chivalry be damned - always shoot a swooping dragon in the back (or be ready to jump).

6. STRIKE IMPACT / INJURY

The base Impact of a missile weapon is affected by the range to the target. The ADVANCED MISSILE DATA TABLE shows the base Impact for a given weapon at each range bracket. Some missile weapons are listed with Impact given as a percentage of its normal base Impact.

Missile Strike Impact is determined by rolling **2d6** and adding the missile's base Impact rating. The target's Armour Protective Value (APV) for the location struck is subtracted from the Strike Impact to determine the Effective Impact.

Once the Strike Location and Effective Impact have been determined, injury effects are generated using the INJURY TABLES.

☐ RANDOM ASPECT

Arrows and quarrels always strike with the business end (usually Point). Slingstones have only Blunt aspect. Some thrown weapons, however, may strike with one of several aspects, determined by rolling 1d6:

MISSILE STRIKE ASPECT						
Weapon	1	2	3	4	5	6
Taburi	B	B	P	P	P	P
Shorkana	B	B	E	E	E	E
Spear/Javelin	B	P	P	P	P	P
Other	B	B	E	E	P	P

ADVANCED MISSILE DATA TABLE				
WEAPON	SHORT	MEDIUM	LONG	EXTREME
	Hexes/Imp EML +0	Hexes/Imp EML -20	Hexes/Imp EML -40	Hexes/Imp EML -80
Shortbow (40)	15/4	30/3	60/2	120/2
Shortbow (60)	20/6	40/5	80/4	160/3
Longbow (80)	25/8	50/7	100/6	200/5
Longbow (100)	30/10	60/9	120/8	240/7
Longbow (120)	30/12	60/11	120/10	240/9
Crossbow (40)	20/4	40/3	80/2	160/2
Crossbow (60)	20/6	40/5	80/4	160/3
Crossbow (80)	20/8	40/7	80/6	160/5
Staff Sling	25/5	50/4	100/3	200/3
Sling	15/4	30/3	60/2	120/2
Javelin	8/100%	16/100%	32/50%	64/50%
Spear	6/100%	12/100%	24/50%	48/50%
Blowgun	5/0	10/0	20/0	40/0
Taburi	4/100%	8/100%	16/50%	32/50%
Shorkana	3/100%	6/100%	12/50%	24/50%
Melee Weapon	2/100%	4/100%	8/50%	16/50%

DW Bows are rated for Draw Weight (lbs). To determine the maximum DW (pull) that a character can draw and shoot, multiply the average of STR and Bow SI by 10 pounds.

The standard DW's are: Shortbow (60); Longbow (80); Crossbow (40). For every 10 pounds of DW higher or lower than this base, adjust the weight of the weapon by 1lb and the price by 6d.

Hexes The maximum distance within a range category. For example, a target is considered to be in Short range of a Longbow (80) if it is within 25 hexes (125 feet) of the archer.

Imp Impact determined by range. Arrow impact shown is Point aspect; Blunt or Edge is 1 less than shown. If impact is given as a percentage, it is the percentage of the weapon's normal base melee impact value.

EML The missile caster adjusts EML based on range.

PASSIVE COVER GUIDE									
Best Available Cover	ARAKI (38")			HUMAN (68")			HRU (144")		
	High	Mid	Low	High	Mid	Low	High	Mid	Low
Light Woods	10%	40%	50%	10%	20%	30%	10%	20%	30%
Heavy Woods	20%	60%	80%	20%	40%	60%	20%	40%	50%
Light Undergrowth	10%	20%	40%	-	-	20%	-	-	10%
Heavy Undergrowth	10%	20%	50%	-	10%	30%	-	-	20%
Wall (3')	15%	80%	100%	-	25%	75%	-	-	15%
Wall (4')	100%	100%	100%	-	50%	100%	-	-	60%
Wall (5')	100%	100%	100%	50%	100%	100%	-	-	75%
Wall (6')	100%	100%	100%	100%	100%	100%	-	20%	90%
Battlements	100%	100%	100%	10%	60%	100%	-	20%	75%
Mantlet or Arrow Slit	100%	100%	100%	90%	95%	100%	-	50%	100%
Window	40%	80%	100%	20%	50%	80%	100%	75%	75%

The Passive Cover Guide gives the percentage chance of striking cover according to the targeted Aiming Zone (High, Mid or Low).

If, for example, the target is a human behind a 4' wall, and the Aiming Zone is Mid, there is a 50% chance that the wall will intercept the missile.

If the target is protected by multiple covers, apply whichever single value is greatest.

Note that missiles may penetrate certain types of cover. The GM should assign Armour Protective Values for flimsy cover.

The table shows a range of examples but is by no means exhaustive; other cover/target types are left to GM discretion.