ORIGINAL EDITION DELTA

Fantasy Game Rules Supplement

BOOK OF WAR

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Index

Foreword

In the beginning there was *Chainmail* with its medieval mass-combat miniatures rules. That game had a "Fantasy Supplement" section which spawned *Dungeons & Dragons*, with its so-called "Alternative Combat System" for man-to-man engagements. The D&D system, of course, became far more popular and well-known than the original game (in fact, synonymous with the RPG industry itself), such that later, the need to return the favor was apparent. We received offerings such as *Swords & Spells* (based firmly on D&D, but frankly not fun to play) and *Battlesystem* (fun to play, but again based on a system fundamentally different from D&D).

I've always yearned for a mass-combat game that, on a statistical basis, faithfully replicated the results of classic D&D combat. In other words, I wanted a system that could quickly resolve combat between several hundred bandits or orcs, and know that the result was (probabilistically speaking) the same as if we'd played out individual D&D combat for the whole. I knew that none of the prior products actually fit the bill.

Personal confession time: All of us have our careers and lives shaped by certain early experiences. Frankly, nothing was so fundamental in building my own personality, my thinking/speaking/writing style, as *Dungeons & Dragons*. Similarly, most math professionals have their career arcs shaped by some fundamental problem that they became entangled with. I might go so far as to say that the path that led me to a graduate degree in Mathematics & Statistics started years earlier, thinking about D&D, and the way in which representations of medieval warfare with miniatures and dice might or might not be compatible with its core assumptions.

I've found the game that I'm presenting here to be, at long last, satisfying in that regard. Three principal goals have been pursued: (1) To cultivate a game which can stand on its own as fun, entertaining, and elegant. (2) To create a system that faithfully extrapolates standard D&D combat results on a mass scale. (3) To realistically simulate actual historical medieval warfare, as much as possible.

When the work was started, I expected these three goals to be frequently at odds with each other, requiring many points of compromise. However, I've found that not to be the case, and I've been happy to find in the main that each of these goals support and reinforce the others. Inasmuch as the original game shared the same goals, it made the way that much easier.

One thing that the original RPG and wargame designers did not have was the copious computing power which we now have all around us. Numerous heavy-duty statistical analyses have been run to confirm that the core simulation is sound, and many tens of millions of simulated runs of the game have been made to help balance and price the units found herein. I'm enormously grateful to find myself in a position where I feel that I can contribute something special to our tradition of "fantastic medieval wargames".

Core Rules

This section lays out the most fundamental rules regarding scale, movement, and combat. Depending on your needs, this section alone may suffice to play out battles between fairly large numbers of men and monsters in D&D.

1. Scale

The scales used for personnel, distance, and time are shown to the right. Standard infantry bases are assumed to be 3/4" (20mm) square, cavalry are 1x2" (25x50mm). For justification on this scale, see "Design Notes" at the end of this book.

System Scale
1 figure = 10 men
1 inch = 20 feet
1 turn = 30 seconds

2. Movement

Every turn, figures can advance forward the number of inches indicated by their "Move" rating (MV; same as D&D). For men on foot, this can be found on the adjacent table. Animals and monsters also use their standard game movement.

Gear	Move
Light	12
Medium	9
Heavy	6

3. Combat

Each figure in contact with the enemy rolls one 6-sided die on their turn to attack. A roll of at least equal to the target's "Armor Hit" value (AH; see table to right) indicates a hit. For normal men, each hit removes one figure.

Armor	Hit
None	3
Leather	4
Chain	5
Plate	6

Monsters with multiple "Hit Dice" (HD; same as D&D) take that same number of hits before having a figure eliminated (track partial damage with a spare die). For every 3 HD, they also receive a +1 bonus to their attack rolls.

In general, any to-hit bonus or penalty described in D&D can be converted to these rules via dividing by 3 and rounding down. It's most convenient if you subtract modifiers from the target number to hit, and roll all attack dice at once; each die greater than or equal to the adjusted target value then indicates one hit.

Basic Rules

These rules present a system for playing out basic historical battles in harmony with the D&D game. Normal men only are used here; fantasy types will come later.

1. Sequence of Play

Initially, units are selected for each player. Initiative is rolled by 2d6 for each player (high roller acts first in each stage of setup; re-roll any ties). Terrain is set up on the playing surface, units are placed in formation, and then the first turn begins.

Each player's turn consists of 3 phases. The phases are: (1) movement of forces up to maximum allowance, (2) attacks against enemy units with missile fire or melee, and (3) morale checks for enemy units that lose figures during the turn. All actions in a given phase must be declared in advance, prior to any measurement or resolution.

2. Unit Selection

Before the game can be played, each side must assemble its available forces. This can be done by selecting figures on a cost-value basis, or it can be the result of larger campaign developments. Historical unit types only are shown below.

Unit	Cost	MV	AH	HD	Notes
Light Infantry	4	12	4	1	Leather, spear/sword/axe
Med. Infantry	5	9	5	1	Chain, spear/sword/axe
Heavy Infantry	9	6	6	1	Plate, sword/axe
Pikemen	5	12	4	1	Leather, pike
Archers	7	12	4	1	Leather, shortbow
Longbowmen	9	12	4	1	Leather, longbow
Crossbowmen	6	12	4	1	Leather, light crossbow
Hvy Crossbows	8	9	5	1	Chain, heavy crossbow
Light Cavalry	9	24	4	2	Leather, lance
Med. Cavalry	12	18	5	2	Chain, lance/sword
Heavy Cavalry	18	12	6	2	Plate, lance/sword/axe
Horse Archers	12	24	4	2	Leather, composite bow

Key:
Cost: Expense in units of 10 gp per figure per month.
MV: Movement in inches (same as D&D).
AH: Armor Hit value (number on d6 required to hit).
HD: Hit Dice (hits-to-kill; same as D&D).

Cavalry: Mounted troops gain extra movement, hit dice, and attacks. Cavalry make <u>double</u> attacks per turn in open terrain (2 dice per figure; one each for men & horses). However, in any non-open terrain, move costs are doubled and attacks are halved to just 1 die per figure. (See more below on terrain.)

Pikemen: Footmen with long pikes can attack while keeping a separation (1") from the enemy. If an enemy closes from the front, then they get a special, immediate attack at either <u>double</u> (in single rank) or <u>quadruple</u> dice (in multiple ranks), and a to-hit bonus of +1 vs. infantry, +2 vs. cavalry. The enemy checks morale immediately, and if failed, gets no attack. Pikes lose this benefit in non-open terrain or when routed.

Archers: Troops with missile weapons, of course, can launch attacks at a great distance. Missiles can be launched at one unit, up to 45 degrees to the left or right. The rate-of-fire (ROF) shown in the table indicates how many attack dice are rolled by each figure *if they are motionless*. With up to a half-move they can fire at half-dice; with more than a half move, fire is prohibited. Also shown is the missile range in inches; attacks are normal up to half range, but are –1 to hit at greater distances.

Missile	ROF	Range
Sling	1	12
Shortbow	2	15
Composite bow	2	18
Longbow	2	21
Light crossbow	1	18
Heavy crossbow	1	24

Generally, archers can fire up to 3 ranks deep. If any unit is between the archers and their target, then "indirect fire" is required, at –1 to hit. Archers positioned on higher elevation avoid these limitations. Intervening terrain 10' or more high (like woods, hills, or gulleys) prevents fire entirely. Check line-of-sight if a dispute arises, but remember that miniature heights are not at ground scale.

Distance is measured from furthest attacker to nearest defender. If any other units are within 3" of the target figure, then split attack dice evenly between all such units (whether allies or enemies). Archers cannot fire when in melee range with the enemy, but fight normally with secondary hand weapons (1 die/figure in melee).

Horse archers gain two advantages. First, they can make a full move and still attack at 1 die/figure. Second, their arc of fire may be up to 180 degrees to the left-hand side.

3. Terrain

If the location of battle is not otherwise known, then players take turns rolling on the table to the right. Each player gets a number of rolls equal to one-fourth the playing area in square feet. Terrain is indicated with one-sheet paper tiles (8.5 x 11 inches) or similar representation. Pieces are placed as desired by each player, leaving an open area on each side for army setup.

2d6	Terrain	Move
2	Gulley	2/up
3	Rough	2/1
4-5	Hill	2/up
6-7	Open	1/1
8-9	Woods	2/1
10	Marsh	3/1
11	Stream	4/1
12	Pond	None

The right-hand column indicates movement costs; for example, moves through rough cost 2" per 1" traveled. Hills and gulleys should have 10' elevation contours marked, and extra move cost is 2" per step upwards. Open terrain requires no tile; streams can be represented by a 1-1/2" wide strip across the playing surface. Ponds are impassable to all normal units.

4. Formation

At the beginning of the game, each player assembles their forces into units. Troops must be grouped into units of at least 3 figures, all of the same type (exception: when a player has fewer than that number of a given type). Armies are placed in order of initiative, on opposing edges of the table, as determined earlier.

Units should be kept in a mostly-rectangular formation during play, with figures generally facing the same direction. The figures across the front are counted as "files" (width), and figures from front-to-back as "ranks" (depth). The back rank only may have a reduced number of figures. Figures lost in combat are removed from the back rank.

The figures of one unit should be kept in base-to-base contact with each other, and separate from other allied units. A unit can be bent along one axis (possibly in many places), but a connected chain must be kept from one side to the other. Units cannot be split up or joined together. They cannot pass through other units.

Changing Formation: If a unit wishes to re-structure its formation during play, it can do so by spending an entire turn without moving. The center-front of the unit must remain fixed, but otherwise the controlling player re-positions the figures of the unit into a rectangle of whatever dimensions are desired.

Changing Face: A unit can face to the left, right, or rear by paying 1/2 of its move allowance (ignoring terrain effects). This turns all the figures of the unit in place, facing the new direction. Note that a left- or right-face swaps the "files" for "ranks", and vice-versa. Units can disengage from melee by making an about-face and normal move.

Turning (Wheeling): A unit may turn (or "wheel") its front rank up to 90 degrees around an outside corner by paying movement equal to its files; e.g., 3 figures wide pays 3" movement (a 45 degree wheel costs half as much). As the front rank moves forward, subsequent ranks may wheel in the same place at no additional cost. If it's obvious that space and movement permit, then the entire unit may be wheeled together in one turn.

Hedgehog: Effectively a "face out" command (again costing 1/2 of a move), all figures in a unit are turned outwards. In this state, every side counts as the "front", but no movement is possible until figures are again faced in a single direction. A unit requires at least 2x2 ranks and files in order to effect this facing.

On Contact: When enemy units engage each other, they should be squared up in base-to-base contact as much as possible. If a target is caught mid-wheel (see above), then advance as many ranks forward as necessary to establish contact.

Wrapping Movement: If a large unit contacts a smaller unit, then it may choose to "wrap" around the sides (cost as per a normal "wheel" above, counting only the files moving on each side). An engaged unit with many ranks may expand up to 3 files on each side and "wrap" at the same time (cost as per "change formation"). After combat ends, advancing units can generally re-form freely; however, if the main body is actually blocked by one of its own wings, then squaring the unit up costs a 1/2 move.

Flank and Rear Attacks: Attacks against the rear of a unit are at +1 to hit. Units attacked in the flank or rear lose the "extra ranks" bonus to morale (see below).

5. Morale
At the end of any turn in which a unit loses figures, that unit must make a morale check or become routed. Morale is checked by rolling 2d6, adding the unit's HD, the "rate of loss" for the turn, and an "extra ranks" bonus. If the result is 10 or more then morale is good; otherwise the unit routs.

Rate of Loss: To determine the "rate of loss" (or R/L), count the number of figures remaining in the unit, and divide by the number of figures lost in the current turn (keep lost figures together for this evaluation). Round fractions down.

Extra Ranks: This bonus is one less than the unit's current ranks (up to +3). If the back rank has less than half the figures of the others, then it is not counted for this purpose. In a "hedgehog", only ranks facing in a single direction are counted. A unit attacked in the flank or rear loses this bonus entirely.

Routed Units: A routed unit should have a marker placed next to it indicating its status. It will perform an about-face, if needed, and flee away from all enemies at the full movement rate per turn (maximize distance from all enemies). At the end of a turn in which it avoids any loss, a unit may attempt another Morale check to recover from the routed status (R/L = 0). If a unit flees off the playing surface, then it is lost.

If a routed unit runs into another friendly unit, then the second unit must also make an immediate Morale check or likewise about-face and flee (use the size of the routed unit as the number "lost"). A routed unit that cannot flee is allowed to act normally, with a –1 to its attack die rolls; however, if it fails another Morale check, then it is destroyed.

Intermediate Rules

This section builds upon the Basic Rules by including the various fantasy creatures, heroes, and wizards that are fundamental features of D&D game campaigns.

1. Conversions
One of the guiding principles of this ruleset has been to make converting any creature type from D&D into this system as simple as possible. Many of the most notable types are presented further below, with appropriate costs. Here are the primary guidelines for such conversions:

Movement Values and Hit Dice are the same as presented in the D&D rules. Armor Hit values can be converted by looking at the table in the Core Rules section here and correlating AC to equivalent leather, chain, or plate types (or alternately, see Advanced Rules: Exact Armor). Ranges for missile attacks are also as per the standard RPG.

Cavalry-type units are given the movement rate of the mount and an effective bonus to hit dice. For naturally aggressive mounts (those that press the attack even without a rider), add the rider and the mount's HD. For non-aggressive mounts (like horses), take the rider's HD, and add that to the lesser of the rider's or mount's HD. Attack levels must be tracked separately for rider & mount. We also assume that rider & mount have approximately the same AC (within 3 points or so).

Monsters with extra attacks gain an equivalent number of dice when attacking. Likewise, creatures that do 2 or more dice of damage (say, giants) score that number of hits with each successful attack, but this is limited by the target's HD. For example, a 2-dice attack against a 1-HD target scores just 1 hit; that is, a normal man can't be squashed more than one time by a giant's melee attack.

Re-conversions should not be allowed. For example, do not let a hero switch to man-to-man scale, pick up a shield for +1 AC, and then re-convert for an improved AH score. Once play begins, only powers and effects that give at least a +3 bonus in D&D are considered (whether in terms of armor or attacks).

Other special abilities will be noted below the specific fantasy unit types that follow.

2. Fantasy Units

Lawful Units: Basic

Unit	Cost	MV	AH	HD	Notes
Halfling, Lt. Infantry	5	12	4	1	Hide in woods
Halfling, Slingers	7	12	4	1	Hide in woods, slings (+1 to hit)
Elf, Lt. Infantry	5	12	4	1	Hide in woods
Elf, Med. Infantry	7	9	5	1	Hide in woods
Elf, Archers	9	12	4	1	Hide in woods, shortbows
Dwarf, Med. Infantry	7	9	5	1	Dodge giants
Dwarf, Hvy Crossbows	10	9	5	1	Dodge giants, heavy crossbows
Dwarf, Cranequiniers	15	12	5	2	Mule mounts, light crossbows

Hide in Woods: Halflings and elves have this ability. If there are any woods on the battlefield, the controlling player can opt to make a secret note of these figures' location, and then wait to place them on the board at the start of a later turn.

Dodge Giants: Dwarves have this ability. They receive a +1 AH adjustment against attacks from big monsters such as ogres, trolls, and giants.

Lawful Units: Elite
Troops shown below are all 3rd-level serjeant-types (Swordsmen):

Unit	Cost	MV	AH	HD	Notes
Halfling, Elite Slingers	16	12	4	3	Leather, slings (+1), hide in woods
Elf, Elite Archers	30	12	5	3	Elfin chain, longbows, *invisibility*
Dwarf, Elite Infantry	40	9	6	3	Dwarven plate, axes, dodge giants
Men, Elite Cavalry	90	12	6	6	Heavy horse, plate, lance/sword, 2 attacks (1d6+1 each)

Invisibility: Elves shown above are all 3rd level fighter/magic-users with the *invisibility* spell. The controlling player makes a secret note of their location (which can be anywhere), and places them on the table at the start of a turn of his or her choice.

Chaotic Units: Basic

Unit	Cost	MV	AH	HD	Notes
Goblin, Lt. Infantry	3	9	4	1	Light-weakness
Goblin, Archers	6	9	4	1	Light-weakness, shortbows
Goblin, Wolf Riders	10	12	4	3	Light-weakness, 2 attacks (1d6)
Orc, Lt. Infantry	3	12	4	1	Light-weakness
Orc, Med. Infantry	4	9	5	1	Light-weakness
Orc, Archers	8	12	4	1	Light-weakness, shortbows
Gnoll, Med. Infantry	8	9	5	2	(No modifiers)
Gnoll, Longbowmen	14	9	5	2	Longbows

Light Weakness: Orcs and goblins suffer a –1 penalty to morale checks when fighting in full daylight. (In effect at all times unless the Advanced Rule: Weather is used.)

Chaotic Units: Elite
Figures below are still at 1:10 scale, and thus represent a whole band of ogres, trolls, giants, etc. Powerful individual monsters are dealt with under "Heroes".

Unit	Cost	MV	AH	HD	Notes
Ogres	18	9	5	4	Great strength
Trolls	75	12	5	6	Regenerate, 2 attacks, fearless
Giant, Hill	55	12	5	8	Throw stones 20", damage 2
Giant, Frost	70	12	5	10	Throw stones 20", damage 2, cold immunity
Giant, Fire	80	12	5	11	Throw stones 20", damage 2, fire immunity

Great Strength: Ogres get increased damage; add +50% to the number of hits they inflict in combat on any turn (assuming the target has 2 HD or more).

Regenerate: Trolls remove hits at a rate of 1 per figure in contact with the enemy, accounted during their own morale phase. Fire or acid hits prevent regeneration.

Throw Stones: Giants can hurl large rocks as a standard missile attack: range 20", rate-of-fire 1, damage 1 per attack.

3. Heroes

The term "Hero" refers to any special, high-level creature that is represented by an individual figure on the tabletop. These can include fighting-men warlords, older dragons, conjured elementals, etc. Creatures should have at least 10 HD to appear as a hero figure at this scale, and characters are assumed to have +3 or more total bonuses from magic, weapons, and abilities.

Figures: A special identifying figure should be used for each hero. This figure may act alone or embedded in a larger, normal unit (perhaps as a captain or general, if the same general size and type as the accompanying troops).

Movement: Heroes use their standard D&D move scores (in inches). Of course, they should match the speed of any larger unit to which they are attached. Heroes alone have free facing, and are not charged with wheeling, about-face, etc.

Armor: Use the table in the Core Rules section to find the hero's AH value. Characters with negative ACs are given AH 7 (effectively unhittable by normal men). Also, some creatures will be generally unhittable due to the need for magical weapons (such as for elementals, lycanthropes, and greater undead).

Hits: Compute a hero's HD rating by taking their D&D Hit Dice and dividing by 10 (rounding down); usually this results in just 1 HD. (More precisely, you can divide hit points by the average of 10 hit dice, e.g., 35 for six-sided dice.) However, heroes embedded in a larger unit are effectively <u>immune</u> to normal melee or missile attacks (i.e., with defenders on each side, and thus facing a single normal man each round, the chance of a Lord taking a hit is inconsequentially small). By themselves, heroes can be meleed by <u>only 1 figure</u> at a time, and don't suffer any penalty for rear attacks (unless exceptionally large). Finally, heroes <u>never check morale</u>.

Attacks: For high-level heroes, the most salient single factor in mass combat is simply their attack rate per round. (At this level, one almost always hits any normal creature automatically, and does at least one full HD of damage; therefore, such factors as armor and even attack level become irrelevant.) Consider the

Atks/Rnd	To-Hit
1	5
2	3
3+	1

character's D&D attack rate and see the adjacent table; the result is the number the hero needs to roll on a 6-sided die to score one figure hit.

Entourage: The individual hero character takes up only a small fraction of the space indicated by their miniature figure. Therefore, they may include an attached "entourage", i.e., the equivalent of a normal 10-man figure in the same space (note this with a flag or marker on the hero figure). Both the hero and the entourage attack and defend in their own, standard fashion.

Sample Hero Figures

Hero	Cost	MV	AH	HD	Atk	Dam	Notes
Knight Renown	80	12	7	1	1	2	Magic sword, lance, horse
Knight Commander	85	12	8	2	1	2	Magic sword, lance, horse
Knight Exemplar	90	12	8	2	1	4	Magic sword, lance, horse
Barbarian Lord	70	12	6	1	3	3	Magic sword & composite bow
Barbarian King	80	12	7	2	3	3	Magic sword & composite bow
Dragon, Old Blue	120	24	6	1	3	2	Flying, lightning breath
Dragon, Old Red	125	24	6	1	3	2	Flying, fire breath
Dragon, Old Gold	130	24	6	1	3	2	Flying, fire/gas breath
Elemental, Air	40	36	6	1	5	1	Magic to hit; whirlwind
Elemental, Earth	40	6	6	1	5	3	Magic to hit; battering ram
Elemental, Fire	40	12	6	1	5	2	Magic to hit; fire attack
Elemental, Water	40	18	6	1	5	2	Magic to hit; water domain

Key:
Atk: Number needed on d6 for the hero to attack (based on D&D attacks/round).
Dam: Damage in hits per successful attack (based on D&D damage dice).

Knights: Typical high-level fighter-types include Knights Renown (10th-level Fighter), Commanders (15th), and Exemplars (20th). They have magic weapons, magic plate armor and shield, and high physical ability scores. Each rides a barded, heavy warhorse (9" move if unhorsed).

Barbarians: Chieftains of barbarian tribes are represented here by multiclassed Fighter/ Thieves – including Lords (Ftr12/Thf8) and Kings (Ftr16/T12). They have magic weapons, magic chain mail and shield, and very high ability scores. Bow attacks hit on 5 or better for 1 damage. Barbarians are unmounted by default.

Dragons: Dragons fly at the indicated rate, and ignore all terrain modifiers (9" move if grounded). Assume that dragon breath kills one single enemy figure in contact with HD up to 1d6 + 5/6/7 (for blue/red/gold). Heroes automatically take 1 hit. Dragons can breathe and still attack on the same turn.

Elementals: Elementals can only be hit by those wielding magic attacks (any hero listed above qualifies). Air elementals can form a whirlwind each turn and automatically eliminate one 1HD-figure. Earth elementals do full damage to castles and other structures. Fire elementals do flame damage (e.g., deadly to trolls). Water elementals outside a stream or pond are reduced to 6" move and 1 damage.

Special Combat: For a variety of reasons, it's recommended that opposing heroes be brought into contact and have the battle played out in regular D&D man-to-man rules, with 1 turn of combat = 3 D&D rounds. (This presumes keeping complete D&D statistics for any hero figure you utilize, of course).

4. Wizards

When we speak of "Wizards" we mean (obviously) a Hero-type that uses a variety of magic spells. For simplicity here, we refer to Wizards as being ranked from 1 to 6 (i.e., level 11-16), and we deal only with the top-level spells (i.e., 6th) which affect the battlefield itself in a direct and significant fashion. Wizards act as Heroes in all ways mentioned in the previous section.

General Abilities: We assume that all Wizards have a number of basic spells active or available on the battlefield. Each has a magic *shield* (AH 6 minimum), a *protection from evil* ward (cannot be hit by elementals, etc.), and can *see invisible* (detect any invisible creatures in 12"). All have at least one of *invisibility*, *flying*, or *polymorph*, so they can escape the battlefield whenever they wish.

Magic Wands: Wizards are presumed to have a wand of either *fireballs* or *lightning bolts*. These allow a Wizard to launch two such missiles every turn for the length of a normal game (treat movement interaction as for archers). Maximum range is 24", and exact range must be declared before measuring. Units struck lose one figure if a roll of 1d6+1 equals or exceeds their HD (normal men are automatically killed). Heroes caught by a missile have a 2-in-6 chance to take 1 hit (roll 1d6: 5+ hits).

Greater Spells: Wizards of rank 1-6 can prepare a number of "greater spells" (6th-level) equal to one less than their rank number, e.g., a 4th-rank Wizard has 3 greater spells. (Every 2 ranks above 6th add another greater spell.) The Wizard can cast one of these spells per turn, standing motionless to do so. Choose from the following list:

- **Antimagic Shell** (Range: Personal, Duration: 12 turns). This makes the Wizard and entourage immune to all spells, magic, and enchanted creatures. It prevents the Wizard's own spells, but may be dismissed at any time.
- **Control Weather** (Range: Two miles, Duration: 1 day). This spell allows a Wizard to change local weather conditions, one step per turn of concentration (see Advanced Rule: Weather). Competing Wizards should dice for control.
- **Death Spell** (Range: 12 inches, Duration: Instantaneous). This spell instantly applies 4 hits, plus 1 per 3 caster ranks, to a target unit in range. It only affects mass targets of up to 8HD (no Heroes). There is no save.
- **Disintegrate** (Range: 12 inches, Duration: Instantaneous). This spell has a 1-in-6 chance to eliminate any single Hero figure (roll 1d6: killed on a 6). It can also create a 1/2" gap in a castle wall or the like.
- **Lower Water** (Range: 24 inches, Duration: 12 turns). This spell drains away water in one terrain feature. It makes one marsh, stream, or pond tile passable at normal movement (as open terrain) for the duration.
- **Move Earth** (Range: 24 inches, Duration: 6 turns). This spell can move any single terrain feature 6" per turn (caster must remain motionless to concentrate). Units are caught up and moved with the feature in question.

Targeting Spells: As usual, targets for spells should be declared prior to any measurement. If it turns out that the desired target is out of range, then the spell manifests at the limit of its range in that direction, affecting any figures or terrain there. (Note that missile spells like *fireball* and *lightning bolt* use a different rule above.)

Converting Spells: Of course, you're free use the full panoply of D&D spells in your game, although some adjudication must be made for each. Ignore the "general abilities" above if you're tracking every individual spell in a caster's list. Again for simplicity, use the following general principles:

- Range: Use inches as per D&D.
- Duration: Use turns as per D&D.
- Area: Take inches as per D&D; divide by 3 in each dimension.
- Damage: Area effects that do 1 die damage per level remove affected mass figures with HD up to a roll of 1d6+1 per 2 levels above 4th level.

Sample Wizard Figure

Wizard	Cost	MV	AH	HD	Atk	Dam	Notes
Wizard Rank 1	175	12	7	1	6	1	Magic wand, ring, scroll, dagger

Wizards: As mentioned previously, this indicates a wizard of 11th level, with an active *shield* spell (AC3 base) and other defenses. The wizard also has high ability scores, a *ring of protection +2, a dagger +2*, magic scrolls, potions, etc.

Higher Ranks: Cost increases by 5 per rank above 1st. If you permit abilities beyond those shown in these rules, cost should likewise be increased.

Advanced Rules

This section presents options and variants that may be added piece-by-piece or in their entirety to give added depth to the standard game.

1. Weather
If you wish to use random weather, then immediately after terrain is placed, make a roll on the table below. (You may wish to make adjustments for specific geographic regions; the table below generally assumes temperate areas in the summer season.)

2d6	Weather	Effect
2-7	Sunny	Orcs/goblins at -1 morale
8-9	Cloudy	(No effect)
10-11	Rainy	Missiles at -1 to hit
12	Stormy	No missiles, move cost x2, cavalry attack 1 die/figure

2. Darkness
Creatures who are forced to fight in darkness (underground, at night, etc.), without the special ability of darkvision, suffer several penalties. They move at 1/2 speed, can't fire missiles, and suffer –1 to melee and morale checks.

Darkvision: Note that all fantasy types (excepting men and halflings) have this ability. Creatures from the underworld can always fight normally, even in total darkness.

3. Morale Modifiers
The following modifiers to morale checks are recommended.

Alignment: Lawful troops should receive +1 and Chaotic troops –1 to morale checks. Normal men are generally assumed to be Neutral (no modifier).

Cohesion: If one side is entirely composed of a single unit type (same race, equipment, etc.; that is, foregoing any combined-arms strategy), then it receives a +1 morale bonus to reflect increased unit cohesion and *esprit de corps*.

Leadership: A unit with an attached, friendly Hero figure in the front rank receives a +1 morale bonus. If the unit contacts an enemy Hero, and the leader fails to engage in man-to-man combat, then the unit instead suffers –1 morale for the rest of the game.

4. Exact Armor

In the Core Rules section, a very simple table was given, translating from type of armor to specific "Armor Hit" (AH) values. A more exacting table is given to the right (in close to 3-point increments).

If you opt to use this chart, then the cost for any unit type where it makes a difference must be increased. For example, footmen in "leather & shield" (properly AH 5) would be identified and priced as per "medium infantry".

If you use a system with "ascending AC" (e.g., chain mail is AC 15), then AH can be found by taking the AC, dividing by 3, and rounding down.

Armor	AC	AH
No Armor -1	10	3
No Armor	9	4
Shield Only	8	4
Leather Armor	7	4
Leather & Shield	6	5
Chain Mail	5	5
Chain & Shield	4	5
Plate Armor	3	6
Plate & Shield	2	6
Plate & Shield +1	1	6
Plate & Shield +2	0	6
Plate & Shield +3	-1	7

5. Alternate Scales

Some decisions about time and distance scale have been necessary in regards to the underlying game, in light of the fact that different editions of D&D use different values for these parameters. If you disagree with the assumptions made herein, then you may wish to alter the gameplay to better fit your preferences.

Long Range: If the ranges for missiles & magic from D&D were converted with complete precision, then technically they should be 50% longer than they appear here. (The decision to effectively use only short and medium ranges was made for the sake of quick conversions and ease-of-play). If you wish to allow for long-range missile fire, then implement a third range category, which is half again the maximum range normally shown, applying a –2 modifier to hit at that distance. For example: Heavy crossbows would have short range of 12", medium range of 24", and long range of 36". However, most of the time this won't make any difference, as any armor type above leather will be effectively unhittable at long range.

Large Areas: Another fundamental assumption we make is that man-to-man combat is played out at a scale of 1" = 5 feet. This mainly affects how we interpret spell areas given in inches; if your preference is to interpret man-to-man scale as 1" = 10 feet, then it would be more accurate to divide spell (and breath attack) areas by just 2, thereby increasing the effect. For example, a *fireball* would be 2" in diameter, and thus affect up to 2 cavalry, or 4 infantry figures. Obviously, this radically increases the power of Wizard figures (and would imply a commensurate increase in their cost).

Short Turns: Yet another way to increase the fidelity of the underlying game simulation is to reduce the length of the standard turn. For example, you could say that 1 turn = 15 seconds, and halve all movement and attacks during the turn. Or, you could use 1 turn = 10 seconds, taking one-third of the normal movement and attack dice numbers. At this point, every turn would represent the same action as one round of D&D.

6. Ships & Castles

Ship and castle models can be constructed at the scale indicated here (1"=20 feet), which is specially chosen so that realistic structures are of useful size on the tabletop, and miniature figures will conveniently fit on top of them. (Note that buildings in scale with figure height are not compatible!)

In any kind of enclosed space, the following basic rule modifications are made. (1) The minimum unit size of 3 figures is waived; (2) allied figures may pass through each other; and (3) facing and morale are ignored (i.e., morale is always good). Attackers outside an enclosure are treated normally until one or more break in, at which point figures may split off and act independently (with the foregoing advantages).

Cover: Figures protected by a castle battlement (including fortified forecastle or aftcastle on a ship) get +1 AH versus missile attacks. Defenders entirely enclosed in a tower with arrow slits (allow 1 figure per tower, indicated by contact/facing into the tower) get +3 AH, and can shoot missiles out normally. A similar bonus is given to saves versus missile-attack spells (like *fireball*).

Ships: For naval combat with fast-sailing ships, we recommend use of the "Short Turns" option above, so that listed ship movement, melee, and ranged attacks are all halved (for example, bows fire 1 die/figure each turn). Allow a 45 degree turn for every 6" rowed, or 10" sailed (round to taste).

Castles: A single figure inside a wall protects a 3" long span, and gets double attacks against any attackers in contact at the base of the wall (the defenders being spread out in a single rank, casting down an assortment of rocks, oil, spears, etc.) An attacking figure using ladders (say, 2-3 per figure) must roll a 5+ to escalade over the wall as a full move, and then fights normally. Once inside, doors into towers may be battered open with a roll of 4+. High-level creatures add their bonus from HD to these rolls.

If a simple escalade does not take a fortification, then longer-term strategies such as siege engines, sapping, and/or mining may be desired. However, such methods are outside the scope of these rules in terms of both time and scale.

7. Cost Considerations

The "Costs" shown for figures throughout these rules include wages, support, and upkeep (actual salary paid will be about half that shown). These costs are in units of 10 gold pieces per figure per month – and by "gold piece", we presume something like an English "Noble", 1/3 of a pound in value. While the costs have been play-balanced for the *Book of War* game by means of computer simulations, they've also been kept in scale with both historical sources (for example, see the online "Medieval Sourcebook"), and the D&D rulebooks themselves (for example: see OD&D Vol-3, p. 23).

For a one-off game, the simplest thing is to purchase units on a per-figure basis (e.g., a "100-point game" allows the purchase of 25 light infantry figures, etc.). However, for a campaign game, players will have to multiply costs shown by 10, again multiply by the number of months in service (recommend a 3-month minimum "campaign season"), and pay this amount in gold.

One final note: While the D&D men-at-arms wages are historically fairly accurate, most *other* costs in the game are in fact massively inflated. If you use the standard D&D money system, then it's recommended that you multiply army costs by yet another factor of 10, in order to match the rest of the game's hyper-inflated economy. Or, a different approach would be to leave men-at-arms costs as written and divide *all other costs* in the D&D game by 10 (equivalent to converting all gold to silver units, i.e., the "silver standard", as used by this author and others).

Design Notes

The primary goal here is to find a convenient tabletop mechanic that matches the probabilities of basic D&D combat played *en masse*. The first requirement is to decide on the figure size. As noted in the first section, we assume that miniatures in play have standard infantry bases 3/4" (20mm) square, and cavalry bases 1x2" (25x50mm), in accordance with several other games. We further stipulate that 1 figure = 10 men, arrayed in 2 ranks, 5 men across (and hence 5 attacks per round are made when opposing lines meet in melee combat).

It then turns out that over 3 rounds of standard D&D combat, the chances to eliminate a whole enemy figure match the numbers in the "Armor Hit" chart in the Core Rules (leather = 4, chain = 5, plate = 6). Other round-groupings fail to create such a simple, straightforward result, so we opt to use the time scale of 1 turn = 3 rounds of normal D&D. Assuming that 1 D&D round = 10 seconds (as per Holmes, et. al.), we therefore have 1 turn = 30 seconds in this game.

Some reasonable assumptions about man-size give us our distance scale. Say that each man takes up 3 feet of space across in formation. Then looking at a standard infantry base, we get a distance scale of 1 inch = 20 feet (3 feet/man width * 5 men wide/figure * 1 figure/(3/4 inch) = 20 feet/inch). Fortunately, this is nearly the same as the multiplier applied for our time scale (time multiplied by x3 above, distance multiplied by x4 here if base 1 inch = 5 feet as seen in later D&D, etc.), so it's basically correct to use the same movement rates in inches as in D&D, without any need for conversion.

Finally, there is yet another compelling reason in favor of the 1 inch = 20 feet distance scale, in that it supports the use of ships and castles at the same scale. A larger increment (say, 1" = 30 feet) causes realistic ships, towers, gatehouses, and so forth, to be so small that our standard miniature figures don't actually fit on top of them. The system presented here, in contrast, has been used in conjunction with naval and castle models with great success.

Level demographics follow by-the-book D&D; units are composed of normal men or 1st-level fighters by default. Generally, each squad (figure) of 10 men has a sergeant (2nd-3rd level), every troop of 50 has a lieutenant (4th-5th level), and every company of 100 men or more has a captain (6th-7th level or so). These individuals are not significant enough to change a unit's fighting chances by themselves. However, army commanders can be assumed to be at least name level (10th+), and therefore will appear on the tabletop as individual "Hero" figures, as discussed previously.

We plan to present a series of more complete design notes online at deltasdnd.blogspot.com.

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