CITYTECH ®

THE ADVANCED BATTLETECH GAME OF 3050 COMBAT

FASA
CORPORATION

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CITYTECH
SECOND EDITION

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INTRODUCTION

In the 28th century, man inhabited thousands of worlds radiating out from Sol, first sun of the human race. The benevolent rule of the Star League fostered technology, expansion, and prosperity for all, and the peoples of the Inner Sphere entered an age of peace and harmony. But in 2766, the assassination of First Lord Richard Cameron shattered the unity of the Star League, and in the ensuing chaos, each of the five great dynastic Houses laid claim to the mantle of First Lord. Each of them mobilized their armies and vied for the support of General Aleksandr Kerensky, commander of the Star League Defense Force.

Sickened by the greed and treachery of the House Lords, General Kerensky led more than 100 divisions of the Star League Army in an exodus beyond the limits of known space. With the last pillar of the Star League gone, the House Lords launched the first of four devastating Succession Wars, and a Dark Age descended upon the Inner Sphere.

Three hundred years later, the Inner Sphere stood on the verge of a momentous and lasting peace. The great Houses of Steiner and Davion merged their realms through the marriage of their two rulers, forming the Federated Commonwealth. The rulers of House Kuritia began turning the way of the samurai toward bettering the lives of their people. Thomas Marik, leader of the Free Worlds League, devoted his efforts to uniting his fractious people at the cost of expanding his personal empire. Only the Capellan Confederation under Romano Laio attempted to continue the futile wars of the past.

This fledging peace was crushed by the arrival of the descendants of the lost Star League Army, honed by three centuries of isolation into a militaristic society that prized warriors above all else. Kerensky's followers had turned to eugenics to breed and raise soldiers with one objective: to re-forge the Star League under their banner, the banner of the Clans.

CityTech, Second Edition is a comprehensive game of BattleMech combat. No other books are needed to use this game. **CityTech, Second Edition** updates the original **CityTech** game to be compatible with the **BattleTech Compendium: The Rules of Warfare**, allowing players to use the full range of weaponry and combatants available in the year 3054. **CityTech, Second Edition** expands the rules of **BattleTech, Third Edition** to include infantry and Clan technology, including battle-armored Elementals.

CityTech, Second Edition provides construction rules for Inner Sphere and Clan 'Mechs and ground vehicles. Stats for the plastic 'Mechs included in this box appear at the end of this book, and the set provides a booklet of blank record sheets for every type of unit available in the game. Also included are two **BattleTech** mapsheets, along with two sheets of counters depicting buildings, fire, infantry, and vehicles.

LEVEL TWO BATTLETECH

Beginning with the publication of the **BattleTech Tactical Handbook**, all **BattleTech** rules now carry a Level One, Level Two, or Level Three designation. Level One **BattleTech** represents the basic level of play described in the **BattleTech, Third Edition** boxed set and uses the technology available in 3025—all 'Mechs, vehicles, and weapons described in **Technical Readouts 3025** and **3026**.

Level Two **BattleTech** represents the rules used in all tournaments and MechForce-level competition. Level Two **BattleTech** is defined by the rules contained in the **BattleTech Compendium: Rules of Warfare**. All the rules in this book are Level Two, which includes all Level One rules and the technology available in 3055—the 'Mechs, vehicles, equipment, and other technology described in **Technical Readouts 2750, 3050, 3055**, and all previous tech readouts.

Level Three **BattleTech** play may include any of the optional rules presented in the **Tactical Handbook**, as well as the experimental technology included in the **MechWarrior** adventure **Unbound**. Level Three rules are optional rules that players may use as they see fit. The rules for Land-Air 'Mechs (LAMs) now appear in the **Tactical Handbook** as Level Three rules, which makes them illegal for tournament play.

COMPONENTS
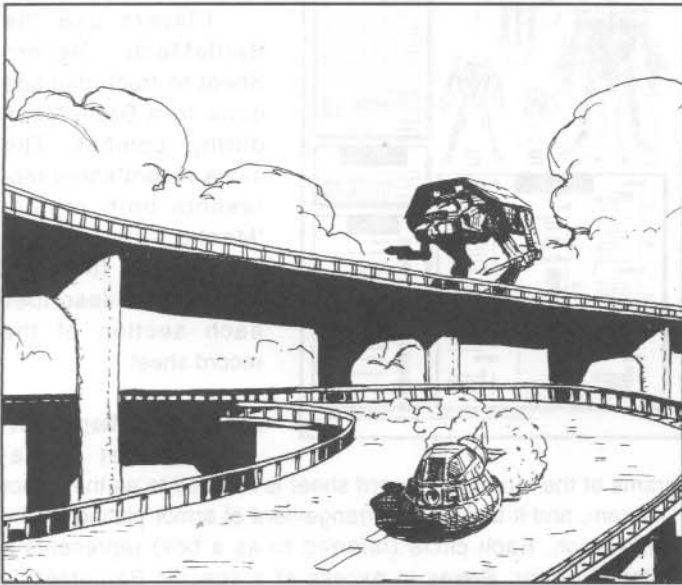
The game of **CityTech** simulates combat between single BattleMechs, vehicles, or infantry units on a variety of terrain. This chapter describes the various combat units that compete on the **CityTech** battlefield and the various record sheets and maps needed to play the game.

UNITS

In these rules, the term *unit* refers to any combat unit— BattleMech, vehicle, infantry platoon, or battle armor Point. During game play, units are best represented by miniatures. Sixteen plastic miniatures are included in the **CityTech** box. A complete line of **BattleTech** miniatures is available from **Ral Partha**. If miniatures are unavailable, players may use counters or any other item to represent each unit, as long as it is clear which way each unit is facing at all times.

BATTLEMECHS

BattleMechs—the most powerful war machines ever built—dominate the battlefields of the 31st century. These huge, man-shaped vehicles are faster, more maneuverable, better armored, and more heavily armed than any other combat unit. Equipped with particle projector cannons, lasers, rapid-fire autocannons, and missiles, these behemoths pack enough firepower to flatten everything but another 'Mech.

Armies of the 31st century field two classes of BattleMechs: those used primarily by the Inner
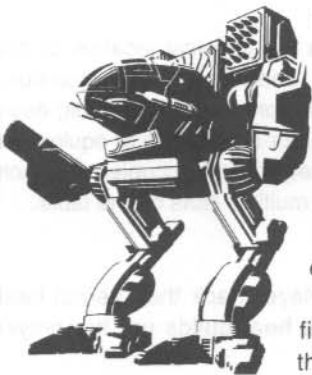
Sphere, representing variations of and improvements on the original 'Mech technology, and the unique machines that give the Clans their edge, known as OmniMechs.

VEHICLES

Most armies choose to use their BattleMech resources sparingly when they can, and so maintain forces of more conventional vehicles to serve in low-intensity conflicts and as auxiliaries to BattleMech units.

Ground Vehicles

The Inner Sphere armies of the thirty-first century deploy three types of ground vehicles: tracked, wheeled, and hovercraft.

Tracked: Because they move using continuous caterpillar treads, these vehicles are normally referred to as tanks, though the original meaning of this term has been lost in antiquity. The treads allow these vehicles to move easily through virtually every type of terrain an army may encounter on any planet. Commonly armed with turret-mounted heavy weapons, some of the heaviest vehicles of this class can inflict a great deal of damage, even to a BattleMech.

Wheeled: Wheeled vehicles move faster than tracked vehicles while still mounting effective weapons. These vehicles suffer serious terrain restrictions, however, and so commanders usually assign wheeled vehicles to relatively open terrain and cities to serve as convoy escorts or fire-support vehicles for dismounted infantry.

Hovercraft: Hovercraft are designed for speed. That feature, rather than their weak armor and light armament, serves to protect these rather fragile vehicles. Because hovercraft also cost more and require a higher technology base than tracked or wheeled vehicles, armies use them cautiously. Their ability to rapidly close with the enemy and just as rapidly break contact, however, makes these units highly valued for reconnaissance and screening missions.

INFANTRY UNITS

The Inner Sphere and the Clans use two distinct infantry unit configurations. Unarmored infantry are organized into 28- or 21-man platoons. Battle-armored infantry form 5-man Points. When these rules refer to infantry, both unarmored infantry platoons and armored infantry Points use those rules. In specific rules for one or the other type of infantry unit, the terms *unarmored infantry* and *infantry platoon* refer to non-battle suited infantry; the terms *battle armor, armored infantry,* and *infantry Point* describe units wearing battle armor.

Foot

Twenty-eight-man foot infantry platoons have no organic transportation, carry light arms, and cannot hope to successfully assault or defend against even the lightest BattleMech. Foot infantry generally provide population control, man city garrisons, and mount counterinsurgency operations. Though the start-up cost for such units seems relatively high, they cost very little to maintain. Infantry units are also useful because most planets can call up and arm thousands of foot infantry on short notice.

Motorized

Equipped with a variety of light vehicles, motorized 28-man infantry platoons move about the battlefield more readily than foot infantry, but still are no match for BattleMechs. Motorized infantry units serve the same duties as foot infantry, and also serve as forward observers or reconnaissance personnel.

Jump

The 21 men in a jump platoon are all equipped with jump packs. In open, flat terrain, this equipment makes jump infantry as mobile as motorized troops. In built-up areas, jump-capable troops are more mobile than any other type of infantry. Their jump capabilities allow these troops to close quickly with enemy units, but a close assault of this type can devastate both the defender and the attacker.

Battle Armor

Battle-armored infantrymen wear powered suits of armor equipped with various weapons. Though some Inner Sphere units field battle-armored troops, such equipment remains rare and is less powerful than the Clan equivalent. Clan infantrymen, known as Elementals, are organized into 5-man Points. Their individually powered suits of armor mount missiles, small lasers, and anti-personnel weapons. Because Elemental armor can survive direct hits from BattleMech-class weapons, a single Point of battle armor can efficiently disable or destroy a 20-ton 'Mech.

RECORD SHEETS

Players use the following record sheets to track various types of information while playing **CityTech**. Each type of unit (BattleMech, vehicle, infantry, battle armor) uses a unique record sheet. Permission is given to reproduce these record sheets for personal use.
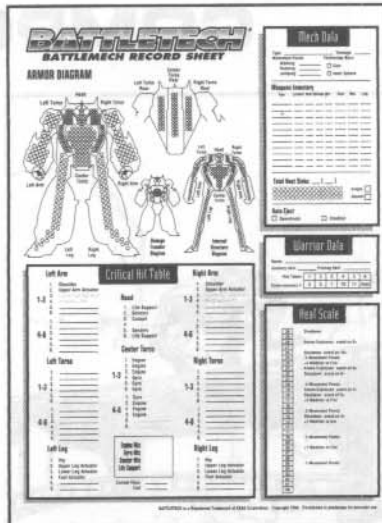
BATTLEMECH RECORD SHEET

Players use the BattleMech Record Sheet to track damage done to a BattleMech during combat. The same record sheet represents both regular 'Mechs and Omni-Mechs. The following information describes each section of the record sheet.

Armor Diagram

The set of diagrams at the top of the record sheet is referred to as the Armor Diagram, and it shows the arrangement of armor plating on the BattleMech. Each circle (referred to as a box) represents a point of armor. Boxes in excess of a specific BattleMech's armor plating are filled in prior to play. As weapons hits destroy a 'Mech's armor, the player checks off the boxes by filling in the affected circles. The Armor Diagram shows the front and rear armor of the BattleMech's torso, the Internal Structure Diagram, and the Damage Transfer Diagram.

The Internal Structure Diagram shows the locations of the BattleMech's internal structures and is used to track damage to those locations. The Damage Transfer Diagram shows where damage will be taken or transferred when a part of the BattleMech already destroyed takes additional damage.

Mech Data

Located in the upper right corner, this section of the record sheet lists the BattleMech's most important statistics, including the BattleMech type, tonnage, movement, weapons inventory, and heat sink boxes.

Warrior Data

This section lists the name, skills, and condition of the MechWarrior piloting the BattleMech.

Critical Hit Table

The Critical Hit Table shows the physical location of the BattleMech's critical equipment, weapons, and ammunition. This table helps determine the location of any critical hit; each slot represents a particular weapon or other piece of equipment susceptible to destruction. Some equipment occupies so much space in the 'Mech that it requires multiple slots on the table.

Heat Scale

The Heat Scale helps the player track the internal heat build-up in each BattleMech. As heat builds up, the player

checks off these boxes from low to high. At certain levels of heat build-up, information in the right column of the scale describes the effect of the heat on the BattleMech's operation.

VEHICLE RECORD SHEET

The Vehicle Record Sheet allows players to track damage done to individual vehicles during combat.

Armor Diagram

The Armor Diagram on the right-hand side of the record sheet shows the arrangement of the vehicle's armor plating and internal structure. As weapons hits destroy the armor, the player fills in the circles (checks off the boxes). When all the boxes in one section are filled in, damage transfers to the adjacent internal structure. The shaded areas of the Armor Diagram show the locations of the vehicle's internal structure.

Vehicle Data

The Vehicle Data section lists the vehicle's other important statistics, including its tonnage, movement, weapons inventory, and other components. The player also records the pilot's Driving and Gunnery Skills here.

INFANTRY RECORD SHEET

Infantry Record Sheets come four to a page and are used for all unarmored infantry platoons. Each record sheet has four rows. Use the top row to record the number of men in the unit. As the unit takes damage, check off these boxes to reflect the platoon's casualties. The remaining three rows show the damage that a specific unit can do, depending on the number of men in the platoon and the type of weapons the platoon is using. For example, a full-strength rifle platoon inflicts 7 points of damage each time it hits, while an 11-man laser platoon does 6.

The record sheet also reprints a Base To-Hit Number Table for each of a platoon's possible weapon types.

BATTLE ARMOR RECORD SHEET

Each Battle Armor Record Sheet represents a Point of battle armor. Each of the sheet's five rows represents a single Elemental. As an Elemental takes damage, the player checks off the boxes in that trooper's row. When all the boxes are checked off, that Elemental is out of the battle. The record sheet also provides two boxes to track the unit's short-range missile salvos.

MAPSHEETS

The 22-by-17-inch mapsheets used in **CityTech** are divided into six-sided areas called hexes (short for hexagon). The players use these hexes to regulate movement and combat by moving units from hex to hex during a turn. Each hex on the mapsheet represents an area of ground 30 meters (roughly 100 feet) across.

The forests, rivers, hills, buildings, and rough areas on a **BattleTech** mapsheet represent a typical mixture of the terrain found on the habitable worlds of the Inner Sphere. The following symbols represent each type of terrain as described.

CLEAR

Clear terrain represents fields, meadows, and other grasslands. The ground is firm and may be gently rolling, but its elevation does not change significantly from one side of the hex to the other.

ROUGH

Rough terrain represents broken, rocky, and jumbled ground. Though firm, this type of terrain generally proves more difficult to cross than Clear terrain. Commonly encountered near cliffs and bluffs, rough ground may also be formed as a result of combat.

HILLS
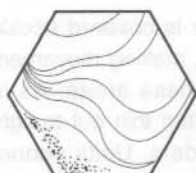
Hilly terrain is significantly higher than the surrounding terrain. The light lines in these hexes show slopes, which are more difficult to cross than Clear terrain because of the changes in elevation. Hills can contain clear, rough, wooded, or paved terrain and buildings. Ground hexes that are not on a hill are at Level 0.

Elevation levels for each hill appear on the mapsheet. Level 1 is 6 meters high (waist-high on a BattleMech): a BattleMech standing behind a Level 1 hill may be partially hidden, and a vehicle is completely hidden. Elevation Level 2 terrain is 12 meters high (the same height as a BattleMech): a BattleMech standing behind Level 2 terrain is completely hidden. Level 3 terrain is 18 meters high, and so on.

WATER
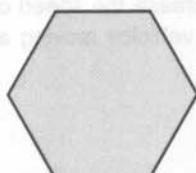
Hexes designated as water terrain are covered by streams, rivers, swamps, ponds, or lakes. A Water hex is defined by depth levels, which correspond to the elevation levels of hills. Depth 0 water is very shallow, no more than ankle-deep on a BattleMech, and represents terrain such

as streams, swamps, or shallow ponds. Depth 1 water is 6 meters deep, or 1 level below ground level (about waist-high on a BattleMech). Depth 1 water is more difficult to cross than shallow water or Clear terrain and is found in rivers, ponds, and along lake shores. Depth 2 water is 12 meters deep, deep enough to just cover a BattleMech. Depth 2 water is much more difficult to cross than shallow water or Clear terrain. Depth 3 water is 18 meters deep, and so on.

Even when a shallow stream fills only part of a hex, that entire hex is considered a Water hex.

BRIDGES

A Bridge hex may span a Water hex. Units moving along a road may use a bridge and so ignore the normal terrain restrictions and movement penalties they would suffer while moving elsewhere in a Water hex. If the bridge is not strong enough to support the weight of the crossing unit, it will collapse.

LIGHT WOODS
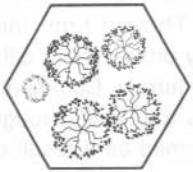
Light woods terrain is covered with sparse trees of up to 12 meters in height. BattleMechs cannot cross this terrain as easily as Clear terrain. Unless the wood is relatively large (at least 3 hexes across), units may have line of sight through light woods. When light woods block line of sight, they do so for 2 elevation levels above their terrain.

HEAVY WOODS
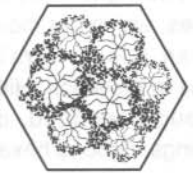
Heavily wooded terrain is covered thickly with 12-meter-tall trees, making movement very difficult through these areas. As in nature, heavy woods often thin out to light woods along their borders. Units cannot see through heavy woods. Also as with light woods, heavy woods block line of sight for 2 levels above their terrain.

PAVEMENT
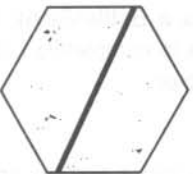
A Paved hex offers a fairly smooth and very hard surface. Paved hexes typically include roads, sidewalks, and landing fields made of asphalt, cement, or even cobblestone. Units that travel along Paved hexes containing roads ignore the slowing effects of other terrain indicated in the hex, and this terrain may increase the speed of ground vehicles. Running BattleMechs and vehicles moving at flank speed may skid on Paved hexes.

COUNTERS

Certain features of terrain such as buildings, rubble, fire, and smoke can be represented on the map by counters made of cardboard or paper. Though buildings and similar features may be printed on the mapsheet, using counters to represent these features allows the players to decide their locations before the game begins, based either on the requirements of the scenario being played or on mutual player agreement.

LIGHT BUILDINGS
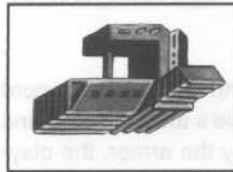
Light buildings generally represent small wooden or sheet-metal structures through which most BattleMechs can walk with little or no trouble. No BattleMech can land on any Light building, because the structure will not bear a 'Mech's weight. When determining line of sight, add the elevation of a Light building to the level of the underlying terrain.

MEDIUM BUILDINGS
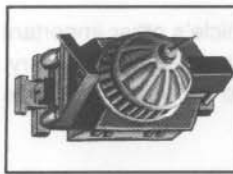
Constructed from stone, heavy wood, and metal, Medium buildings represent light industrial structures that offer more substance than Light buildings. Their heavier construction materials mean they can take more damage than Light buildings before being reduced to rubble. Up to 40-ton BattleMechs can land on some Medium buildings without collapsing the structure. When determining line of sight, add the elevation of a Medium building to the level of the underlying terrain.

HEAVY BUILDINGS
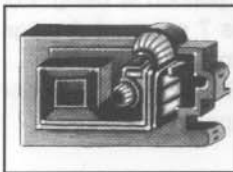
Usually part of industrial complexes, Heavy buildings are constructed of reinforced concrete, built to bear very heavy loads. All but the heaviest BattleMechs can land on Heavy buildings without collapsing the structure. When determining line of sight, add the elevation level of a Heavy building to the level of the underlying terrain.

HARDENED BUILDINGS
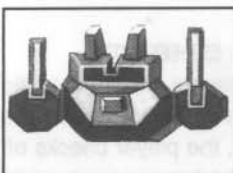
The builders intentionally strengthen Hardened buildings to withstand combat. Of all types of buildings, hardened structures can bear the most weight and sustain the most damage before being reduced to rubble. When determining line of sight, add the elevation level of a Hardened building to the level of the underlying terrain.
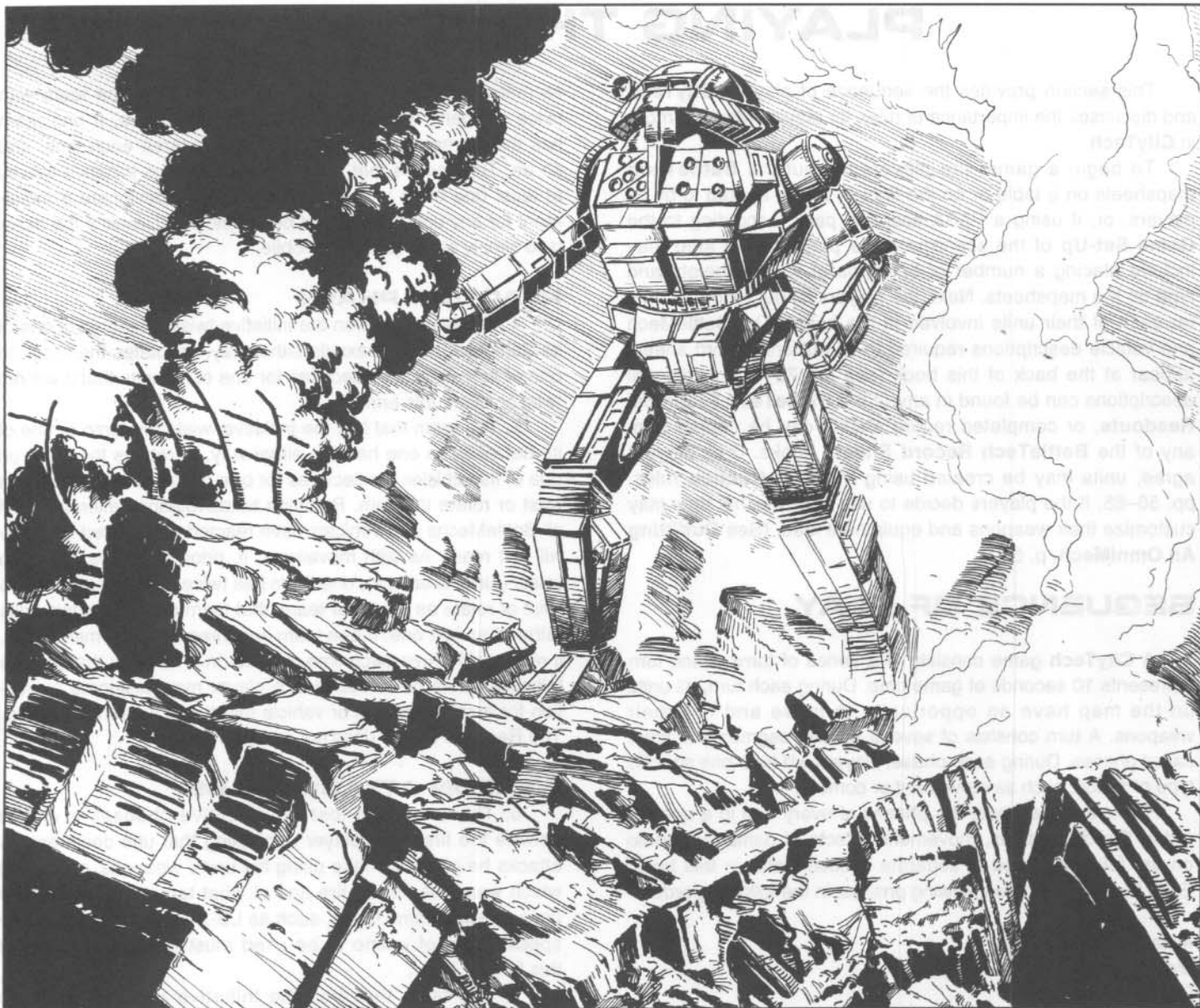
RUBBLE

Weapons fire, fire damage, and physical damage inflicted by BattleMechs can reduce any building to rubble. A Rubble hex is difficult to move through and offers limited protection and cover from weapons fire. Rubble has no elevation level.

FIRE

If fire is present on the map, each hex in flames must have a fire counter in it. These counters are only used if the rules for **Fire**, p. 84, are in effect.

SMOKE

Fire also generates smoke, and these counters represent those hexes obscured by smoke.

DICE

CityTech requires players to use two six-sided dice, preferably of two different colors. If the player must roll one die, the game shorthands this as 1D6. The abbreviation 2D6 means the player rolls both dice. The rules will indicate whether the dice are rolled together to obtain a single number or separately.

PLAYING THE GAME

This section provides the sequence of play for **CityTech** and discusses the importance of rules for playing MechWarriors in **CityTech**.

To begin a game, the players lay out the **BattleTech** mapsheets on a table or on the floor in a way agreed to by all players, or, if using a FASA scenario pack, according to the **Game Set-Up** of the scenario to be played. This step may include placing a number of buildings of varying height and type on the mapsheets. Next, the players fill out record sheets for each of their units involved in the battle. The BattleMech and vehicle descriptions required to fill out unit record sheets appear at the back of this book (see pp. 73–87). Additional descriptions can be found in any of the **BattleTech Technical Readouts**, or completed record sheets can be copied from any of the **BattleTech Record Sheets** books. If all players agree, units may be created using the **Construction** rules, pp. 56–65. If the players decide to use OmniMechs, they may customize their weapons and equipment load. (See **Outfitting An OmniMech**, p. 60.)

SEQUENCE OF PLAY

A **CityTech** game consists of a series of turns. Each turn represents 10 seconds of game time. During each turn, all units on the map have an opportunity to move and fire their weapons. A turn consists of several smaller segments of time, called phases. During each phase, players will take one specific type of action, such as movement or combat.

The players execute the phases of every turn in a specific order. Specific actions, movement, effects of damage, and so on are fully explained in separate sections later in this book. Each turn includes the following phases, in the following order:

Initiative Phase
Movement Phase
Reaction Phase
Weapon Attack Phase
Physical Attack Phase
Heat Phase
End Phase

INITIATIVE PHASE

1. One player from each side rolls 2D6 (both dice) and adds the results together to determine his team's Initiative. The team with the higher result has the Initiative throughout the turn. Ties are rerolled.

MOVEMENT PHASE

2. The team that lost the Initiative chooses one unit and moves it first.

3. The team that won the Initiative moves one unit. Movement alternates between sides until all units have been moved. If, prior to any pair of movements, one team has twice as many units left to move as the other team, the team with twice as many moves two units rather than one. If one team has three times as many units, it moves three each time, and so on. This means that the team that won the Initiative moves at least one of its units last. A player may designate a movement for any unit that has not been destroyed, even if the move is to simply stand (or lie) immobile.

REACTION PHASE

4. The team that won the Initiative twists the torso of one of its BattleMechs one hexside either way, or rotates the turret on one of its vehicles, or declares for one of its units that it will not twist or rotate this turn.

5. The team that lost the Initiative twists the torso of one of its BattleMechs one hexside either way, or rotates the turret on one of its vehicles, or declares for one of its units that it will not twist or rotate this turn. Reaction twists/rotations alternate until all BattleMechs and vehicles have reacted or declared that they will not react. As with movement, if, prior to any pair of torso twists (turret rotations), one team has twice as many units left to twist or rotate as the other team, that team reacts with two units rather than just one. If one team has three times as many units, it reacts with three each time, and so on. The team that lost the Initiative twists or rotates last. A player may designate a reaction for any BattleMech or vehicle that has not been destroyed. The Reaction Phase does not apply to infantry.

WEAPON ATTACK PHASE

6. The team that lost the Initiative chooses a unit to declare fire first. The player controlling that unit declares any attacks he plans to make using his unit's weapons, specifying which weapons he will fire and at what target(s). If a weapon uses special ammo loads, such as LB-X cluster munitions, the specific type of ammo to be used must also be declared at this time.

7. The team that won the Initiative chooses a unit to declare fire next. The player controlling that unit declares any attacks he plans to make using that unit's weapons. The act of declaring attacks alternates between players until all fire has been declared. If, prior to any pair of declarations, one team has twice as many units left to declare as the other team, that team declares two units, rather than just one. If one team has three times as many units, it declares three each time, and so on. The team that won the Initiative declares the last attack.

8. Weapons fire is resolved one unit at a time. Because all combat fire is considered to take place simultaneously, the order in which it is resolved does not matter, though all weapons attacks by one unit should be resolved before those of the next unit in order for the players to more easily track which weapons have fired.

9. Damage from weapons attacks takes effect. Players record damage as attacks are resolved, but this damage does not affect any unit until after *all* weapons attacks have been

resolved. At that point, all damage takes effect immediately and players must make any Piloting Skill Rolls required due to the effects of weapons attacks. Note that damage taken by a unit during the Weapon Attack Phase takes effect before the start of the same turn's Physical Attack Phase.

PHYSICAL ATTACK PHASE

10. Repeat Steps 6 through 9 for physical attacks, with all damage from these attacks taking effect before the Heat Phase.

HEAT PHASE

11. Players adjust their BattleMechs' Heat Scale to reflect any heat built up or lost during the turn. Resolve any temporary or permanent damage caused by excessive internal heat at this time. Note that vehicles and infantry do not keep track of heat.

END PHASE

12. Players whose MechWarriors lost consciousness in a previous turn now make a dice roll to see if the pilot regained consciousness during this turn.

13. Players execute any miscellaneous actions remaining in the turn, such as determining if any fires now on the map-sheet spread to other hexes. The specific rules for such actions will state whether or not they take place during the End Phase.

14. Repeat Steps 1 through 13 until one team meets its victory conditions. Normally, the team with the last surviving unit left on the board wins the scenario. If the last units from each team are destroyed simultaneously, the game is a draw. The players may set other victory conditions by mutual agreement before play begins or by using the **Victory Conditions** given for each scenario in the FASA scenario pack being played.

MECHWARRIORS

The human soldiers who pilot BattleMechs are called MechWarriors. Their skills play an important role in keeping a BattleMech moving and fighting effectively in combat. A BattleMech will be knocked out of action if its MechWarrior is killed or seriously injured, even if the BattleMech suffers only minimal damage.

MECHWARRIOR SKILLS

MechWarriors use two important skills in combat, Piloting and Gunnery. Inner Sphere MechWarriors of average skill have a Piloting Skill level of 5 and a Gunnery Skill level of 4. Clan MechWarriors of average skill have a Piloting Skill level of 4 and a Gunnery Skill level of 3.

A MechWarrior's Piloting Skill helps determine the outcome when a MechWarrior attempts to avoid falling, and to minimize damage when a BattleMech does fall down, as discussed in **Piloting Skill Rolls** (see **Movement**, p. 18). A MechWarrior's Gunnery Skill helps determine how easy or difficult it is to make a successful shot with the BattleMech's weapons, as discussed in **Firing Weapons** (see **Combat**, p. 23).

Making Piloting Skill Rolls

When a BattleMech or vehicle attempts a potentially dangerous maneuver, or whenever the pilot might lose control of the unit, the pilot must make a Piloting Skill Roll. (See **Piloting Skill Rolls** in **Movement**, p. 18.) The player adds the appropriate modifiers to his pilot's Piloting Skill level. The resulting number is the Piloting Skill Roll target number. Then the player rolls 2D6. If the result is equal to or greater than the modified Piloting Skill level, the action is successful and the unit suffers no adverse effects.

Gunnery Skill Rating

A MechWarrior's base to-hit number is equal to his Gunnery Skill level. When modified for range, terrain, and other factors, this number becomes the modified to-hit number (see **Firing Weapons**, p. 23). A player whose unit fires a weapon must roll a dice roll result equal to or greater than the modified to-hit number in order to hit the target. As a result, the lower the Gunnery Skill level, the more likely the MechWarrior will be to hit his target.

Varying Skill Levels

Rather than giving their MechWarriors the standard Piloting and Gunnery Skill levels, players can roll randomly at the beginning of the game to assign a Piloting and Gunnery Skill level to every MechWarrior (and vehicular combatant). This random generation usually produces an interesting mix of green and seasoned fighters. To use the Random MechWarrior Skills Table, the player rolls 1D6 to determine the MechWarrior's Piloting Skill level, and again to determine his Gunnery Skill level. If the player is playing a Clan MechWarrior, add 2 to the result of each of the die rolls before consulting the table.

RANDOM MECHWARRIOR SKILLS TABLE			
Die Roll (1D6)	Piloting Skill	Die Roll (1D6)	Gunnery Skill
1	6	1	4
2	6	2	4
3	5	3	4
4	5	4	4
5	4	5	3
6	4	6	3
7–8	3	7–8	2

SKILL IMPROVEMENT

Players may want to use the MechWarriors they create in future scenarios or in **BattleTech** campaign games—assuming, of course, that the warrior survives the current battle. In this case, players should keep track of the number of enemy BattleMechs destroyed by each surviving MechWarrior. For every 4 BattleMechs he destroys, the MechWarrior can reduce his Gunnery Skill or Piloting Skill by 1, though Gunnery and Piloting Skill levels can never be less than 0.

MechWarrior, **Second Edition**, the roleplaying game for the **BattleTech** universe, offers a more advanced system for Piloting, Gunnery, and other skills that can be used in place of these rules.

DAMAGING A MECHWARRIOR

Three types of damage to a BattleMech can also damage the MechWarrior inside: head hits, falling, and internal ammo explosions. In addition, excessive heat build-up can result in damage to the MechWarrior if the BattleMech's life support system takes damage.

Damage from Head Hits

The MechWarrior takes 1 point of damage (1 hit) whenever the BattleMech's head is hit, even if the hit does not penetrate the 'Mech's armor.

Damage from Falling

If the BattleMech falls, the MechWarrior must make a Piloting Skill Roll. If he fails the roll, the pilot takes 1 point of damage.

Damage from Ammo Explosions

An internal ammunition explosion causes 2 points of damage (2 hits) to the MechWarrior as a result of the electric shock he receives through his neurohelmet.

Damage from Excess Heat

When the life support systems have taken a critical hit, the MechWarrior suffers 1 point of damage every turn that the BattleMech's internal heat is 15 or higher on the Heat Scale at the end of the Heat Phase. Every turn that the heat is 26 or higher causes 2 points of damage to the MechWarrior.

CONSCIOUSNESS ROLLS

A MechWarrior can take 5 points of damage (5 hits) before dying from his injuries, but he may be knocked unconscious long before taking that much damage. Every time the MechWarrior takes damage, the player must immediately roll 2D6 and consult the MechWarrior Consciousness Table to determine if the MechWarrior remains conscious.

If the die roll result is equal to or greater than the consciousness number, the MechWarrior remains conscious. If the result is less than the consciousness number, the MechWarrior is knocked

MECHWARRIOR CONSCIOUSNESS TABLE	
Total Consciousness	
Damage Points	**Number**
1	3
2	5
3	7
4	10
5	11
6	Dead

unconscious. The BattleMech becomes an immobile target, unable to move or fire. Any Piloting Skill Rolls that the BattleMech must make while the pilot is unconscious automatically fail.

During the End Phase of each turn after the turn in which the MechWarrior loses consciousness, the player rolls 2D6 again. If the result is equal to or greater than the consciousness number for the MechWarrior's current level of damage, the MechWarrior regains consciousness. The player need not roll again to determine consciousness until the MechWarrior takes new damage. Of course, if the MechWarrior takes 6 hits, he is dead and never regains consciousness.

In Turn 3, an Archer's head takes a hit from an attack with a medium laser. Though the laser does not penetrate the head's protective armor, the Archer's pilot takes 1 point of damage. He took 2 points of damage in previous attacks, and so now has a total of 3 hits. The player consults the MechWarrior Consciousness Table and rolls a 6, 1 point less than his pilot needed to remain conscious. The Archer will not be able to move or fire during Turn 4. In the End Phase of Turn 4, the player rolls 2D6 again. If he rolls a 7 or higher, the MechWarrior regains consciousness, and his BattleMech will be able to move and fire during Turn 5.

MOVEMENT

CityTech units change their position and location on the mapsheet by performing any one of several movements or movement actions. During the Movement Phase of each turn, each player must choose one mode of movement (walking, running, or jumping for BattleMechs; cruising or flank speed for vehicles) that his unit will use during that turn. A unit may not combine movement modes during a turn.

When it is his turn to move a unit, the player must announce what movement mode he is using and how many Movement Points he has to spend on that movement. Within the limits of the rules, the player always chooses how a unit moves.

MOVEMENT COSTS

A unit must spend at least 1 Movement Point (MP) to move 1 hex. If the hex the unit is entering is anything but Clear terrain, this cost usually increases, as shown in the Movement Cost Table, p. 14. Vehicles and infantry cannot enter some types of terrain, and for some terrain a player must make a successful Piloting Skill Roll for a BattleMech to remain standing once it enters that terrain. Such restrictions are described in the sections discussing the terrain to which they apply.

A unit must possess sufficient MP to pay the cost of entering each new hex. However, a unit can always move forward 1 hex, regardless of the terrain cost, under the following conditions: the unit enters only one hex that turn, the unit has at least 1 MP to spend (i.e., is mobile), and the unit is not prohibited from entering that terrain. A unit that enters a hex under these conditions is considered to have run for the purpose of determining combat modifiers.

It costs a fallen BattleMech 2 MP to attempt to stand up. A fallen BattleMech may only attempt to stand up during the Movement Phase, but it may make multiple attempts as long as it has sufficient MP remaining. A fallen BattleMech with only 1 MP available at the beginning of its turn may make one attempt to stand using the exception noted in the previous paragraph. A fallen BattleMech cannot crawl into another hex, but it may change its facing in the hex it occupies. Once a fallen BattleMech regains its feet, any remaining MP may be used to move out of the hex in the same Movement Phase.

Certain vehicles and infantry units may not enter certain types of terrain. These movement restrictions appear on the Movement Cost Table.

MOVEMENT DIRECTION

A BattleMech or vehicle can move forward into the hex it is facing or backward into the hex directly to its rear. It cannot move into any other hex unless it first changes its facing. To change its facing, the unit turns until the hex it wants to enter is directly to its front or rear. Then the unit may enter the hex. The diagram below shows the two hexes that a BattleMech or vehicle may enter without changing its facing.
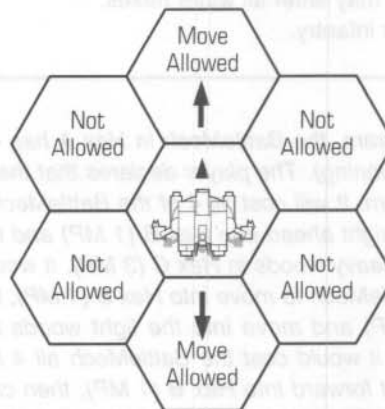
Because infantry units have no facing, they may enter any hex surrounding the hex they occupy, subject to terrain restrictions.

During the course of its movement, a BattleMech or vehicle can move forward and backward and change direction in any manner the player chooses. However, a BattleMech may not run backward, nor may a vehicle move at flank speed backward. Units moving backward may not change elevation levels.

While moving forward, a BattleMech may change elevation or depth by 1 or 2 levels per hex. (This rule does not apply to a jumping BattleMech. See **Jumping**, p. 15.) Ground vehicles and infantry may only change 1 elevation level per hex.

MOVEMENT COST TABLE

Terrain Type/ Activity	MP Cost Per Hex	Prohibited Units
Clear	1	Naval
Road/Paved/Bridge	1[3]	Naval
Rough	2	Wheeled, Naval
Light Woods	2	Wheeled, Hover, Naval
Heavy Woods	3	Ground, Naval
Water		
Depth 0	1	Naval
Depth 1	2[1]	Infantry, Ground[4]
Depth 2+	4[1]	Infantry, Ground[4]
Elevation/Depth Change		
(up or down)	+1/level (Mechs, VTOL, Subs)	
	+2/level (Infantry, Ground)	
Rubble	2[1]	Wheeled, Naval
Light Building	2[2]	Naval
Medium Building	3[2]	Naval
Heavy Building	4[2]	Naval
Hardened Building	5[2]	Naval
Other Activities		
Facing Change	1/hexside[5]	
Dropping to the Ground	1	
Standing Up	2/attempt	

[1]Piloting Skill Roll required to prevent falling.
[2]Piloting Skill Roll required to prevent damage; infantry pay only 1 MP to enter or leave any building.
[3]If traveling along road; otherwise cost of underlying terrain.
[4]Hovercraft may enter all water hexes.
[5]No cost for infantry.

In the diagram, the BattleMech in Hex A has 4 MP (walking) or 6 MP (running). The player declares that the BattleMech will walk this turn. It will cost all 4 of the BattleMech's available MP to walk straight ahead into Hex B (1 MP) and then forward again into the heavy woods in Hex C (3 MP). It would cost all 4 MP for the BattleMech to move into Hex B (1 MP), then change its facing (1 MP) and move into the light woods in Hex D (2 MP). Similarly, it would cost the BattleMech all 4 MP to move into Hex E; first forward into Hex B (1 MP), then changing facing one hex (1 MP), and then entering the Depth 1 Water hex (2 MP). Finally, if the player wanted to move his BattleMech from Hex A directly to Hex F, he would first have to change facing (1 MP), and then, after climbing 2 elevation levels (+2 MP), enter the Clear terrain (1 MP).
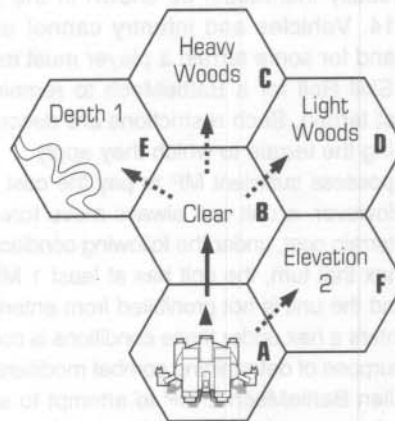
MOVEMENT MODES

At the beginning of the Movement Phase and before moving, a player must select one of the following movement modes for his BattleMech or vehicle.

STANDING STILL

If the player declares that the unit will stand still, the unit stays in the hex in which it started the turn. It does not move at all, not even to change facing. Standing still generates no heat, gives no penalty to weapons fire, and allows attackers to fire on the unit without target movement penalties.

There is no movement cost for standing still.

WALKING/CRUISING

If the player declares that the unit will walk/cruise, the unit may expend a number of MP up to its Walking (Cruising) MP rating. Walking creates 1 point of heat for BattleMechs.

A walking or cruising unit suffers a small penalty to its to-hit number when firing weapons. As a moving target, a walking unit is also harder to hit. These combat effects appear on the appropriate To-Hit Modifier Tables in the **Combat** section, p. 26, and are explained in that section.

RUNNING/FLANK SPEED

A unit can move further in a turn when running (or moving at flank speed, for vehicles) than it can walking. The player may spend up to the Running MP rating of the unit each turn. Running units pay the same movement costs as do walking units. However, no unit can move backward while running, nor can it enter Water hexes of Depth 1 or deeper.

Running creates more heat for a BattleMech (2 Heat Points per turn) than walking does. A unit that is running (moving at flank speed) suffers penalties to its to-hit number when firing weapons, but its speed also makes the unit a more difficult target to hit. These effects are explained in the **Combat** section, p. 24. In addition, a running BattleMech or a ground vehicle moving at flank speed on a paved surface may skid (see **Skidding,** p. 16).

Certain damage to a unit may reduce its Walking/Cruising MP rating. When such damage occurs, the unit's running/flank speed must be recalculated. A unit's Running/Flank MP rating is always equal to its Walking/Cruising MP times 1.5, rounding up.

JUMPING

Not all units can jump. Only some BattleMechs, jump infantry, and battle-armored troops are jump-capable. A jump-capable unit may move into any hex within its jump range. The terrain type in the landing hex does not matter, nor does the BattleMech's original facing. A jumping BattleMech will land facing whatever direction the player chooses.

A BattleMech cannot be constructed with Jumping MP greater than its Walking MP. A jump-capable unit may not jump higher, in levels, than its Jumping MP. Jumping generates a great deal of heat; 1 Heat Point for every hex jumped with a minimum cost of 3 Heat Points. Even if a BattleMech only jumps 1 hex, it builds up 3 Heat Points for that jump. Jumping also makes it harder to fire weapons accurately, but a jumping BattleMech makes a more difficult target than a running or walking BattleMech. These effects are explained in the **Combat** section, p. 24.

When a unit jumps, it can move 1 hex in any direction for every available Jumping MP. It can jump over and into any hex, regardless of terrain type or elevation difference (within the elevation restriction given above). The path a jumping unit travels is always the shortest one possible between the starting and ending hexes. If this path crosses an elevation higher than the unit's Jumping MP, then the unit cannot make the jump. If there is more than one possible path between the unit and its goal hex, the player may declare which path his unit takes.

Because it requires the unit to fire its jump jets, jumping may not be combined with any other movement mode. The process of firing the jump jets, lifting off, and landing requires a full Movement Phase. BattleMechs must be standing at the start of the turn in order to jump.

Jump jets cannot be fired while submerged in water, and so a 'Mech standing in Depth 2 or deeper water cannot jump. If a 'Mech is standing in Depth 1 water, it may not fire jump jets located in its legs, but it may use any jets located in the torso, each one providing 1 Jumping MP. For example, a 'Mech with a Jumping MP of 5 that has one jump jet in each leg and each torso location may only use 3 MP when jumping out of Depth 1 water.

BattleMechs that jump with damaged leg actuators or gyros must make a Piloting Skill Roll to avoid falling when they land.

The BattleMech in Hex A of the following diagram has a Jumping MP of 6. The BattleMech jumps to Hex B, 4 hexes away. Because the BattleMech is using jump movement, it spends only 1 MP for every hex that it moves, ignoring all terrain costs for the hexes it passes over and for the hex in which it lands. As it lands, the player can face the BattleMech in any direction he chooses, at no extra cost. To reach Hex B by walking or running, the BattleMech would have had to spend at least 11 MP.

The BattleMech could have jumped into Hex B by at least three paths, as indicated on the diagram. If the hill had an Elevation Level of 7, the BattleMech could not have used path 1 (because the 'Mech has a Jumping MP rating of 6), but the player still could have chosen path 2 or 3.
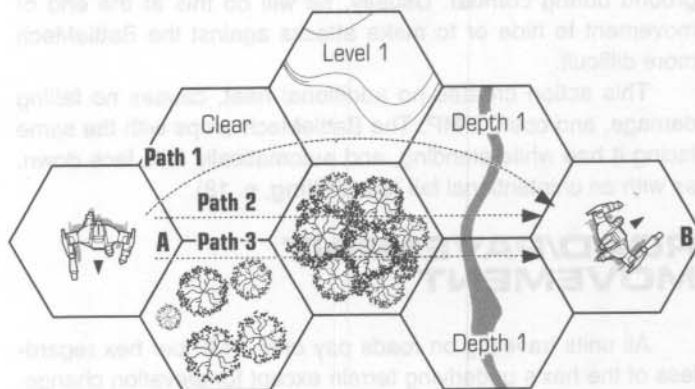
FACING

Every hex on the map has six edges, called hexsides. In **CityTech**, every BattleMech and vehicle must be oriented to face one of those six hexsides. A BattleMech is considered to be facing the way its feet are pointing. A vehicle is considered to be facing in the direction of its Front side. A unit's facing affects both movement (see below) and combat (see **Combat**, p. 21), and can only be changed during the Movement Phase.

Units not clearly facing a hexside can be realigned to one of the two possible hexsides by the opposing player.

Infantry units have no facing.

FACING CHANGE

Every hexside by which a unit changes its facing costs 1 MP. A 180-degree turn would cost a BattleMech or vehicle 3 MP.

A player wants to move the BattleMech in the diagram from Hex A to Hex B. However, the BattleMech is currently facing Hex C, and so cannot legally move to Hex B. If the BattleMech changes its facing, as shown in Figure 2, the BattleMech can now legally move into Hex B. This facing change costs 1 MP.

If the player wanted to move the BattleMech into Hex D (without moving backward), the BattleMech would have to make a two-hexside facing change, at a cost of 2 MP.
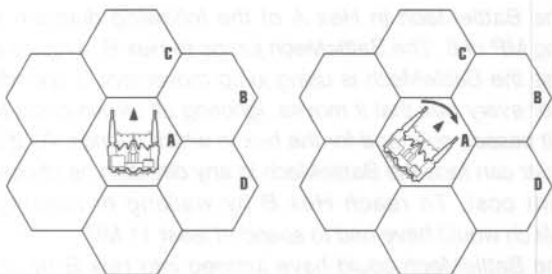
DROPPING TO THE GROUND

A player may choose to have his BattleMech drop to the ground during combat. Usually, he will do this at the end of movement to hide or to make attacks against the BattleMech more difficult.

This action creates no additional heat, causes no falling damage, and costs 1 MP. The BattleMech drops with the same facing it had while standing, and automatically falls face down, as with an unintentional fall (see **Falling**, p. 18).

ROAD/PAVEMENT MOVEMENT

All units traveling on roads pay only 1 MP per hex regardless of the hex's underlying terrain except for elevation change. A unit is considered to be traveling on a road if it moves from one hex to the next on that road.

Units may move through prohibited terrain while traveling on a road, but they must begin and end their movement through such terrain on the road and remain on that road while traveling through the terrain.

In addition, ground vehicles may receive a movement bonus of 1 additional hex for moving on a road. To move an extra hex, the unit must begin its turn on a Paved hex containing a road and continue to travel along the road for the entire Movement Phase.

BRIDGE MOVEMENT

Roads that cross a Water hex are considered bridges. Bridges are classified as Light, Medium, or Heavy, in the same manner as buildings, and have the same range of Construction Factors (CF) as Light, Medium, and Heavy buildings (see **Buildings**, p. 40). Thus, only infantry units and vehicles that weigh 15 tons or less may use Light Bridges. Medium Bridges usually support units weighing up to 40 tons, while Heavy Bridges can support units weighing up to 90 tons. Units that exceed these weights cannot move across the Water hex using the bridge. A unit weighing more than the bridge will support can declare that it intends to collapse the bridge. The unit must take normal falling damage from the collapse of the bridge.

For combat purposes, a bridge can be attacked like a building. When its CF is reduced to 0, the bridge has collapsed.

SKID MODIFIER TABLE

Hexes Moved	Piloting Skill Modifier
0–2	–1
3–4	0
5–7	+1
8–10	+2
11+	+4

SKIDDING

When a BattleMech or a ground vehicle is running (moving at flank speed) on a paved surface or road, the unit may slip and lose control. For a BattleMech that runs (or a ground vehicle that moves at flank speed) in a Paved hex after changing its facing, the player must make a Piloting Skill Roll modified by a factor based on the total number of hexes moved in the turn so far, using the Skid Modifier Table. If the die roll result equals or exceeds the unit's modified Piloting Skill, the running turn causes no effect. If the result is less than the modified Piloting Skill target, the BattleMech falls, suffering normal falling damage, or the ground vehicle loses control and goes into a skid.

A BattleMech or ground vehicle skids for a number of hexes equal to the number of hexes it has moved in the turn so far, continuing in the direction it was traveling before making the facing change that caused it to skid. If an obstacle (any terrain or building that is higher than the terrain the skidding unit currently occupies) or unit lies in the way, the unit crashes into it according to the charging rules (see **Charging**, p. 34). The crash is resolved immediately and, unlike normal charging attacks, can affect a unit that has not yet moved. Use the distance the unit moved before the skid to calculate damage. If the unit skids into a building, the building takes damage as from a charging attack. If the unit skids into an infantry unit, the infantry unit receives damage equal to the skidding unit's tonnage divided by 5, and the unit continues its skid. Skidding represents one of the few ways that units can inflict damage during the Movement Phase.

For every hex that a BattleMech skids, it suffers damage equal to one-half its normal falling damage, rounded up (see **Falling**, p. 18). Use the Front column of the BattleMech Hit Location Table, p. 28 in **Combat**, to determine the location of this damage. Vehicles moving at flank speed suffer the same effect in a skid, except that no damage occurs unless the vehicle hits something. Add +2 to the to-hit number for all weapons fire and physical attacks made against a skidding unit during the turn in which it skids.

Players need not make a Piloting Skill Roll when making a facing change while running on a paved surface or road. A Piloting Skill Roll is only required when a unit runs *after* making a facing change, as illustrated in the diagram and example.
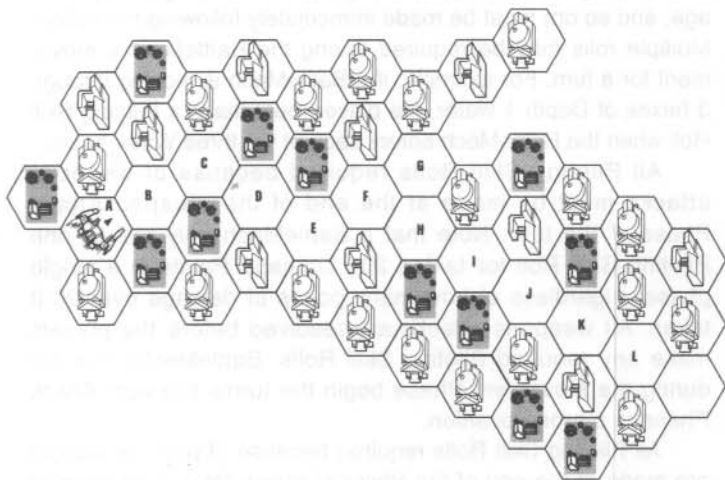
The Phoenix Hawk in Hex A wants to end its turn in Hex G. To spend the required 8 MP, this BattleMech must run. It runs to Hex C and makes a facing change toward Hex D. No Piloting Skill Roll is required. However, when the BattleMech moves to Hex D, still running, the player must make a Piloting Skill Roll because the BattleMech ran after making a facing change. So far, the BattleMech has moved 3 hexes, and so the modifier for the Piloting Skill Roll is 0. The player needs to roll a 5 or better to avoid skidding. The player rolls a 10, and the BattleMech continues to run toward Hex G.

The BattleMech makes another facing change in Hex E toward Hex F. In order to move safely from Hex E to Hex F, the player must make another Piloting Skill Roll, this time modified by +1 because the BattleMech has moved 5 hexes. The modified Piloting Skill Target Number is 6 (5 + 1). The player rolls a 5, which means the pilot failed to maintain control of the BattleMech, and his 'Mech skids down the F–L hex row. Because no obstructions block its path, the BattleMech will skid for 5 hexes. The Phoenix Hawk suffers 5 points of falling damage (45 tons divided by 10 is 4.5, rounded up to 5) and 3 points of damage per hex of the skid (1/2 falling damage of 5, rounded up) for a total of 20 (5 + 15). Needless to say, the Phoenix Hawk should have jumped.

STACKING

During the Movement Phase, a unit may move through hexes occupied by other friendly units, but a unit may not move through a hex occupied by an enemy unit, nor may it end its movement in a hex that would violate the following "stacking" limits. At the end of the Movement Phase:

• Only one BattleMech (friendly or enemy) can occupy a hex.

• Up to two friendly vehicle and infantry units may occupy a single hex. These units can be in any combination, but only one of the units can be a BattleMech. A maximum of four units may occupy a hex at the end of the Movement Phase (two friendly units from each force) by ending their movement in that hex, but only one of the four units may be a BattleMech.

• These stacking rules do not apply to units in the same building on different levels. Within a building, apply these stacking limits to each level of the building.

• Infantry mounted on a vehicle and battle-armored troops riding on a BattleMech do not count against this stacking limit.

It is important to note that while only one BattleMech can occupy a hex, it does not actually take up the entire hex. A 30-meter-wide hex offers plenty of room for a 12-meter-tall 'Mech to move around and avoid fire, and still allows up to three non-'Mech units to share the hex. Simply put, a BattleMech tactically controls the hex it occupies but does not physically fill it.

STANDING UP

The player may choose to have a BattleMech attempt to regain its feet after falling or dropping to the ground. Each attempt to stand creates 1 point of heat and costs 2 MP. A BattleMech may stand during the same turn that it fell, as long as it still has sufficient MP to make the attempt and it was not jumping that turn. BattleMechs may only attempt to stand during the Movement Phase.

For a fallen BattleMech to stand up, the player must make a successful Piloting Skill Roll. If the attempt is not successful, the BattleMech falls again, taking falling damage. The unit may make repeated attempts to stand as long as it has Movement Points available.

Once the BattleMech successfully stands, it may face in any direction (at no cost), regardless of its facing while on the ground, and may continue to move using any remaining Movement Points.

If a BattleMech begins its turn on the ground, it must declare whether it will walk or run before it attempts to stand. A fallen BattleMech may not jump.

TORSO TWIST/ TURRET ROTATION

At the end of all movement, the players can twist the torsos of their BattleMechs or rotate the turrets of any turreted vehicles or buildings. Torso twisting takes place in reverse Initiative order, with the team that won the Initiative twisting

or rotating one unit before the team that lost Initiative twists or rotates one of their units. While standard Initiative order gives the team that won Initiative the advantage of moving last, this reversed order gives the team that lost the Initiative the advantage of twisting last.

A BattleMech can twist its torso one hexside (60 degrees) to the left or right of the direction in which its feet are pointing. This new alignment modifies a BattleMech's firing arc as described in **Combat**, p. 23, but for movement and hit location purposes, the BattleMech is still considered to be facing in its pre-twist direction.

Vehicles with turrets may align the turrets to any hexside. Rotating its turret modifies a vehicle's firing arc as described in **Combat**, p. 23.

PILOTING SKILL ROLLS

Players must make Piloting Skill Rolls in order for their MechWarriors to avoid falling under the following conditions: whenever a MechWarrior attempts to move his BattleMech through exceptionally difficult terrain; his BattleMech receives 20 Damage Points or more in a single turn; certain components of his BattleMech are damaged; and to compensate for other, specific events.

Vehicle pilots make Piloting Skill Rolls only to avoid skids and to avoid taking damage when entering buildings.

MAKING PILOTING SKILL ROLLS

The Piloting Skill Roll Table lists the events that require a player to make a Piloting Skill Roll for his BattleMech's

MechWarrior. Each time one of these events occurs, the player adds the following modifiers to his MechWarrior's Piloting Skill: any indicated modifiers for the event, plus additional modifiers from other events taking place in the same phase, including those listed under Additional Modifiers on the Piloting Skill Roll Table. The resulting number is the Modified Piloting Skill level. To make the Piloting Skill Roll, the player rolls 2D6.

If the result is equal to or greater than the Modified Piloting Skill, the BattleMech avoids falling. If the result is less than the Modified Piloting Skill, the BattleMech falls. If the BattleMech falls during the Movement Phase and has at least 2 MP remaining, it may attempt to regain its feet that turn.

Piloting Skill Rolls required because of movement (entering water, trying to stand up, entering rubble, avoiding falling damage, and so on) must be made immediately following the action. Multiple rolls may be required during the BattleMech's movement for a turn. For example, if a BattleMech is moving through 3 hexes of Depth 1 water, the player must make a Piloting Skill Roll when the BattleMech enters each of the three Water hexes.

All Piloting Skill Rolls required because of weapons attacks must be made at the end of the Weapon Attack Phase of the turn. Note that a BattleMech only makes one Piloting Skill Roll for taking 20+ Damage Points in a single phase, regardless of how many points of damage over 20 it takes. All weapons attacks are resolved before the players make any required Piloting Skill Rolls. BattleMechs that fall during the Movement Phase begin the turn's Physical Attack Phase in a prone position.

All Piloting Skill Rolls required because of physical attacks are made at the end of the Physical Attack Phase. Resolve all physical attacks before making any Piloting Skill Rolls.

During the Weapon Attack Phase, a BattleMech whose MechWarrior has a Piloting Skill of 5 takes 40 points of damage and loses 2 leg actuators. The player makes one Piloting Skill Roll for taking 20 or more points of damage, and two more for losing 2 leg actuators. The modified Piloting Skill Target Number for each of the three rolls is 8 [5 (Piloting Skill) + 1 (20+ points of damage) + 1 (damaged leg actuator) +1 (damaged leg actuator)].

During the Physical Attack Phase, the same BattleMech is kicked in the leg by two other BattleMechs, in the process losing another actuator and taking 23 more points of damage. The player must make four more Piloting Skill Rolls: two for being kicked twice, one for losing a leg actuator, and one for the 23 points of damage. The modified Piloting Skill Target Number for each of the four rolls is 9 [7 (existing actuator damage) + 1 (another damaged leg actuator) + 1 (20+ points of damage)].

FALLING

When a BattleMech falls, both the machine and its pilot may suffer damage. The amount of damage taken by the BattleMech depends on its weight and the distance it falls. Whether or not the MechWarrior suffers an injury depends on a Piloting Skill Roll.

PILOTING SKILL ROLL TABLE

BattleMech's Situation	Modifier
Damage to BattleMech	
BattleMech takes 20+ Damage Points in one phase	+1
BattleMech reactor shuts down	+3[1]
Leg/foot actuator destroyed	+1
Gyro hit	+3
Gyro destroyed	Automatic Fall
Leg destroyed	Automatic Fall
Physical Attacks on BattleMech	
BattleMech was kicked	0
BattleMech was pushed	0
BattleMech was charged/death from above attack	+2
Unit's Actions	
BattleMech missed kick	0
BattleMech charging	+2
BattleMech death from above attack	+4[2]
BattleMech entering Depth 1 Water hex	−1
BattleMech entering Depth 2 Water hex	0
BattleMech entering Depth 3+ Water hex	+1
BattleMech attempting to stand	0
BattleMech entering Rubble hex	0
Unit entering/leaving Light Building hex	0[3]
Unit entering/leaving Medium Building hex	+1[3]
Unit entering/leaving Heavy Building hex	+2[3]
Unit entering/leaving Hardened Building hex	+5[3]
Unit Skids	See **Skidding**, p. 16
BattleMech jumping with damaged leg actuators	per Additional Modifiers, below
MechWarrior trying to avoid damage when his BattleMech is falling	+1/ level fallen

[1]Only during the turn that the reactor shuts down. If the MechWarrior must make a Piloting Skill Roll for a 'Mech with a shut-down reactor, the BattleMech automatically falls.
[2]Automatic fall if death from above attack is unsuccessful.
[3]To avoid damage only. Does not result in a fall if Piloting Skill Roll fails. See **Buildings**, p. 40

Additional Modifiers	Modifier
Per leg/foot actuator previously destroyed	+1
Per hip also/previously destroyed	+2
Gyro also/previously hit (automatic fall if 2 previous hits)	+3
Leg previously destroyed	+5[4]

[4]Do not add modifiers for the destroyed hip and other damaged actuators in the leg.

Determining Location after a Fall

To determine the location of a BattleMech after a fall, the players must use their judgment and the following guidelines to create a reasonable outcome. Location after a fall should be largely determined by the action that created the fall.

In general, when a BattleMech falls because of terrain (movement into or out of deep water, for example), the BattleMech will fall into the lower of the two hexes. If the fall occurs during the Movement Phase from other causes, the BattleMech falls in the hex it was entering. If a fall occurs because of weapons fire, a physical attack, or any other rea-son related to combat, the BattleMech falls in the hex it currently occupies.

If a BattleMech falls into a hex occupied by another BattleMech, the second BattleMech might also take damage, depending on how the BattleMech falls. If the BattleMech fell from a hex 2 or more elevation levels above the landing hex, use the **Accidental Falls from Above** rules, p. 37. If the BattleMech fell from a hex only 1 level higher, use the **Domino Effect** rules, p. 37. If a BattleMech falls in a hex occupied by infantry and/or vehicles, the BattleMech hits the ground, missing any non-BattleMech units.

FACING AFTER A FALL TABLE

Die Roll (1D6)	New Facing	Hit Location
1	Same Direction	Front
2	1 Hexside Right	Right Side
3	2 Hexsides Right	Right Side
4	Opposite Direction	Rear
5	2 Hexsides Left	Left Side
6	1 Hexside Left	Left Side

To find the number of levels the BattleMech fell, subtract the terrain elevation level of the hex into which the BattleMech fell from the terrain elevation level of the hex from which it fell.

Facing after a Fall

When a BattleMech falls, it takes damage and its facing may change. This facing change determines the BattleMech Hit Location Table used when allocating damage from the fall.

To determine the unit's facing after the fall and the area of the BattleMech that takes damage from the fall, roll 1D6 and consult the Facing after a Fall Table.

A fallen BattleMech lies prone and face down. BattleMechs that fall on their sides or rear automatically roll over to lie on their fronts. Rather than attempting to stand after a fall, a prone BattleMech may spend Movement Points to change its facing in the normal manner.

The BattleMech in the diagram was entering a Rubble hex and failed its Piloting Skill Roll. The player rolls 1D6 with a result of 3 and consults the Facing After a Fall Table. The BattleMech is
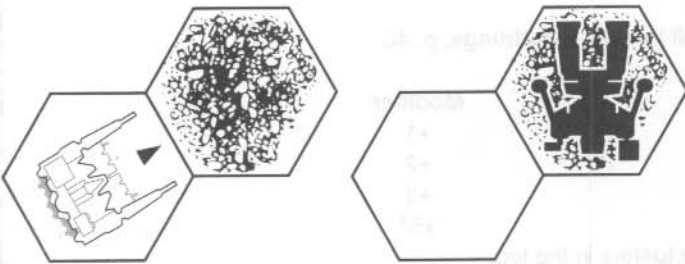
now facing 2 hexsides to the right (clockwise) of its original facing and takes the damage from the fall on its right side. The BattleMech is now prone and face down in the Rubble hex.

Falling Damage to a BattleMech

A BattleMech always takes damage from a fall equal to 1 point for every 10 tons that the BattleMech weighs (rounding up) times the number of levels plus 1 that the BattleMech fell. If it fell "uphill," the number of elevation levels it fell is 0. If it fell from land into a Water hex, treat the Water hex as a Level 0 hex and apply only half the resulting damage (rounding up).

Divide the damage into clusters of 5 points each: in other words, form as many 5-point groups as possible, assigning any
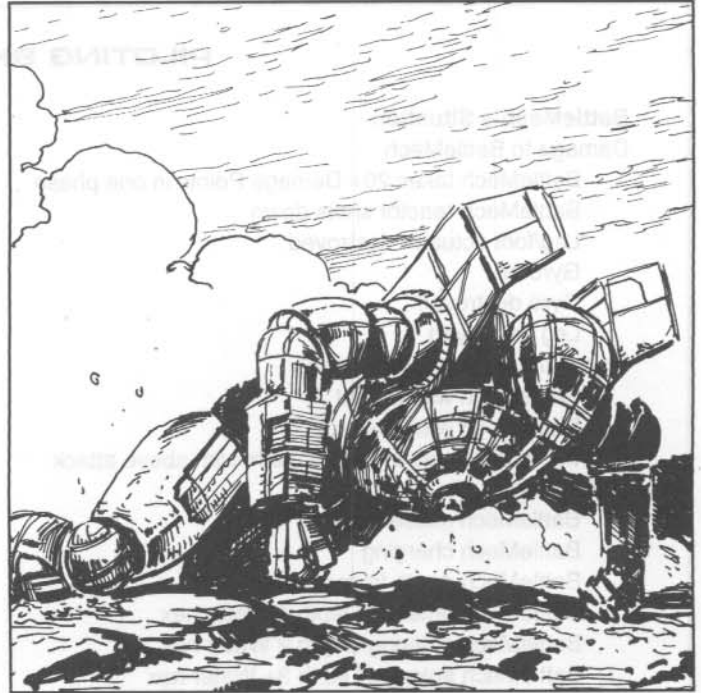
remaining points to one smaller group, and determine a hit location for each cluster. For example, a BattleMech that suffers 33 points of falling damage takes six clusters of 5-point hits and one 3-point hit. To determine the location of the damage, use the appropriate column of the BattleMech Hit Location Table, p. 28 in **Combat**, as specified by the Facing after a Fall Table.

If the fall occurs during the Movement Phase, resolve the damage as it happens. If the fall occurs during a Combat Phase, the damage from the fall occurs simultaneously with all other damage in that phase.

An Archer *in a Level 1 hex attempts to stand during the Movement Phase. The MechWarrior fails his Piloting Skill Roll and the BattleMech falls again into the same hex. The BattleMech fell from a Level 1 to a Level 1 hex (the same one) and so fell 0 levels. The player rolls a 1 on the Facing after a Fall Table and finds that the BattleMech landed on its face. It takes the falling damage on its Front. The* Archer *suffers 7 points of damage (70 tons divided by 10 is 7; the number of levels fallen plus 1 equals 1; 7 x 1 = 7). These 7 points are divided into one cluster of 5 and one of 2. The player then uses the Front column of the BattleMech Hit Location Table to determine the location of the damage.*

Falling Damage to the MechWarrior

To determine if the pilot took damage when the BattleMech fell, the player makes a second Piloting Skill Roll after every fall, adding 1 to the MechWarrior's Piloting Skill target for every level fallen. If the die roll result is equal to or greater than this modified Piloting Skill target, then the MechWarrior avoided taking any damage. If not, the MechWarrior takes 1 point of damage.

COMBAT
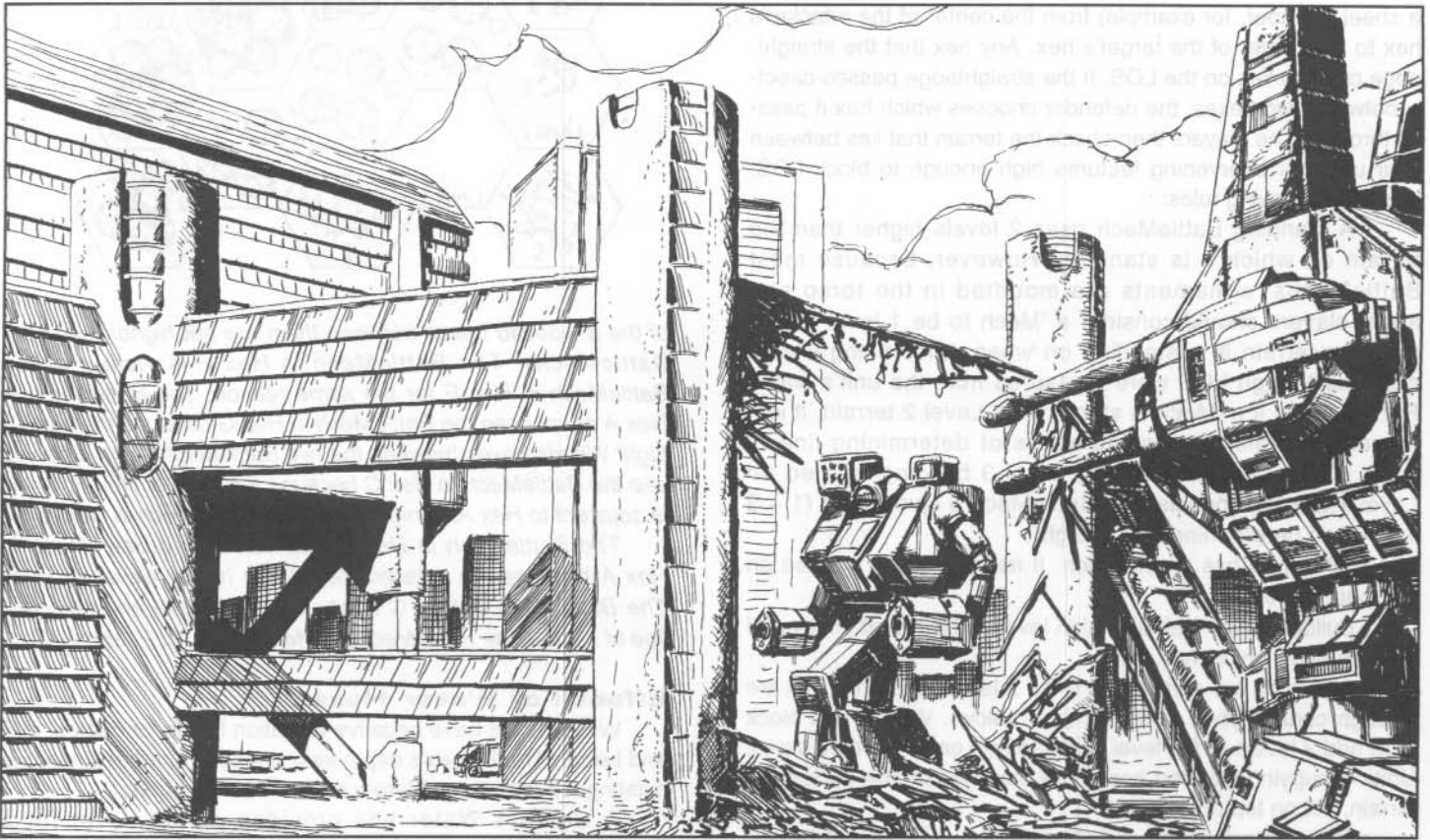
After the players complete the Movement Phase of the turn, units engage in combat. **CityTech** units use two forms of combat: weapon attacks and physical attacks. Units make weapon attacks using armaments such as missiles, lasers, and autocannons. For physical attacks, the BattleMechs use their own massive weight to inflict damage on targets.

In **CityTech**, both weapon and physical attacks first inflict damage on the outer armor protecting every BattleMech and vehicle. When an attack or series of attacks destroys all of an armor location's Armor Points, any remaining damage affects the internal structure of the unit in that location. Every attack that penetrates a unit's armor may result in a critical hit that can knock out a major weapon or movement system or even destroy the unit completely.

Most infantry units have no armor, and so successful attacks against infantry reduce the number of men in the platoon rather than destroying Armor Points. Battle armor units deflect damage with Armor Points in the same way as vehicles, and an attacker may need to make multiple hits to destroy them. See **Infantry,** p. 45, for details.

Special combat rules for vehicles and infantry appear on pages 44 and 46, respectively.

WEAPON ATTACKS

During the Weapon Attack Phase, players use their units' armaments to attempt to inflict damage on targets. For one unit to fire at another, the attacking unit must have a clear line of sight (LOS) to the target, and the target must be within the range and firing arc of the weapons the attacking player wishes to use. The attacking player then calculates the likelihood of a shot hitting the target based on the range to the target, movement of the target and attacker, intervening terrain, and other factors.

A unit cannot make a weapon attack against another unit occupying the same hex as the attacker. (See **Infantry** for exceptions.)

Players fire each weapon on a unit individually, and can fire as many or as few of their unit's weapons at the target as they wish, within the restrictions described below. Unless otherwise stated in the rules, each weapon may be fired only once per turn.

If the attack hits the target, the attacking player determines the damage location, and the target player records the result on the damaged unit's record sheet.

LINE OF SIGHT

When a player decides to fire on a unit, he must first determine whether or not his unit can see its intended target. Various

terrain features can fully or partially block a unit's line of sight (LOS) to a target, making a shot difficult or even impossible.

Players can check LOS by laying a straightedge (a ruler or a sheet of paper, for example) from the center of the attacker's hex to the center of the target's hex. Any hex that the straightedge crosses lies on the LOS. If the straightedge passes directly between two hexes, the defender chooses which hex it passes through. The players then check the terrain that lies between their units for intervening features high enough to block LOS, using the following rules:

• A standing BattleMech rises 2 levels higher than the terrain on which it is standing. However, because most BattleMechs' armaments are mounted in the torso and arms, players should consider a 'Mech to be 1 level higher than the terrain it is standing on when determining line of sight, as though LOS were measured from the unit's waist. For example, if a 'Mech is standing on Level 2 terrain, it is 3 elevation levels high for purposes of determining line of sight. If standing on top of a Level 3 building located on Level 1 terrain, consider the BattleMech 5 levels high (1 + 3 + 1) when determining line of sight.

• All terrain has an elevation. If its level is not marked on the map, it is 0.

• Buildings add their elevation level to the elevation level of the terrain on which they stand.

• All woods are considered to be 2 levels tall. Units can fire through certain types of woods (see below). Woods that block LOS add 2 levels to the level of the terrain on which they stand. Units occupying wooded hexes are standing on the underlying terrain, not on top of the trees.

• If the attacker and target units occupy adjacent hexes, both units always have LOS to each other.

• If any intervening terrain is higher than both units, that terrain blocks LOS.

• No single wooded hex blocks LOS. However, if any three wooded hexes (or any two wooded hexes, if one of them is heavy woods) intervene between the attacker and the target, LOS is blocked. Woods in the target's hex and wooded hexes intervening between the attacker and target that are not dense enough to block LOS still make the attack more difficult (see **To-Hit Modifiers,** p. 24).

• If the terrain in the hex adjacent to the attacker through which LOS is traced is higher than the attacker, then LOS is blocked. If the hex adjacent to the target through which LOS is traced has a higher elevation than the target, then LOS is blocked. Note that because no single wooded hex can block LOS, an adjacent wooded hex does not block LOS according to this rule.

• Intervening units never block LOS.

Water hexes and partial cover have unique effects on line of sight that are explained below.

This diagram illustrates some of the principles governing LOS. The BattleMech in Hex A has line of sight to the BattleMechs in Hexes B, D, E, and F because of the following conditions. Even though 3 wooded hexes normally block LOS, it can see the BattleMech in Hex F because the elevation levels

of the 3 wooded hexes between them are not higher than both BattleMechs. The BattleMech in Hex F is visible to the BattleMech in Hex E for the same reason. The BattleMech in Hex A cannot see the BattleMech in Hex G because there are 3 Light Woods hexes between the two BattleMechs, and it cannot see the BattleMech in Hex C because the level of Hex B, which is adjacent to Hex A, is higher than the BattleMech in Hex A.

The BattleMech in Hex C cannot see the BattleMech in Hex A because the adjacent hex has a higher elevation level. The BattleMech in Hex C does, however, have an unblocked line of sight to the BattleMechs in Hexes B, D, E, F, and G.

Effects of Water Hexes

Water hexes have negative elevation levels, or depths, of 0 and below. Treat a hex's depth as a negative number when calculating the elevation differences between two units.

A Depth 1 Water hex provides partial cover for a BattleMech occupying that hex. Because only part of the BattleMech presents a possible target, add a partial cover modifier to the to-hit number (see **Effects of Partial Cover,** below). Depth 2 or deeper water completely blocks LOS to and from a BattleMech standing in a Water hex.

Hovercraft moving over water are at Level 0.

Effects of Partial Cover

Partial cover makes a BattleMech harder to hit, but any shot that hits a partially concealed 'Mech is more likely to hit a critical location. Only a BattleMech can receive partial cover from terrain. To receive partial cover, a BattleMech must be adjacent to a hex of equal elevation to itself, and that hex must lie between it and the attacking unit. For example, a 'Mech standing on Level 0 terrain has an Elevation Level of 1 for determining LOS. An adjacent hex of Level 1 terrain lying between the attacker and the target would provide partial cover. The firing unit must also be at an elevation level equal to or lower than the defending unit. In other words, an attacker firing downhill negates its target's partial cover.

The intervening elevation can be a hill, building, or combination of both. Partial cover does not block LOS, but it adds a +3 to-hit modifier to the attacker's to-hit number. Use the BattleMech Punch Location Table to determine the location of damage inflicted on a partially concealed target. A partially con-

cealed BattleMech's legs cannot be hit. (See **To-Hit Modifiers**, p. 24, for further explanation.) Add a +2 to-hit modifier for partial cover for attacks made against BattleMechs standing in Depth 1 water [(+3 for partial cover) + (–1 for being in water) = +2]. A BattleMech does not receive partial cover from woods.

The BattleMechs in Hexes B, C, and D have partial cover from the BattleMech in Hex A because each is adjacent to a hex equal to its own elevation along the LOS from the BattleMech in Hex A.

FIRING ARCS

When the player determines that his unit can see its intended target, he must then determine in which of his weapons' firing arcs the target lies. Only those weapons that can be brought to bear on the target can be used to attack the target.

BattleMech firing arcs take advantage of the nature of arm-mounted weapons by firing into four basic arcs: the front and rear arcs, and the right side and left side arcs, as shown in the diagram.
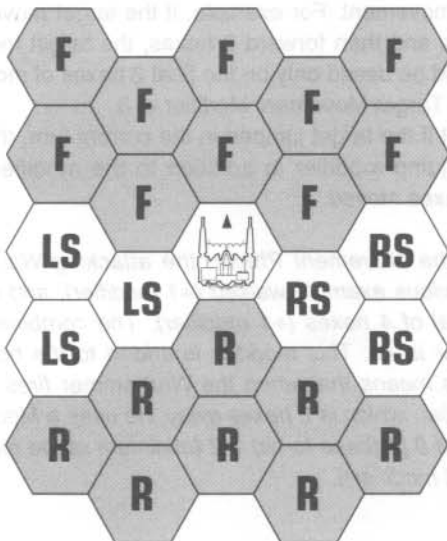
Weapons mounted in the three forward torso locations, the legs, or the head of a BattleMech may only fire into the forward arc. Weapons mounted on the right arm may fire into the forward arc and the right side arc (RS). Weapons mounted on the left arm may fire into the forward arc and the left side arc (LS).

Weapons mounted in one of the three rear torso locations and the rear of the legs and head of a BattleMech (indicated by (R) on the record sheet) may only fire into the rear arc.

A BattleMech with leg-mounted weapons may not fire through a hex that would provide that BattleMech with partial cover.

Vehicle weapons mounted in the front may only fire into the forward arc. Weapons mounted on the right side or left side may only fire into the right and left arcs, respectively. Rear-mounted weapons fire into the rear arc.

Infantry do not have any firing arc restrictions.

Rotating the Firing Arcs

BattleMechs can rotate their torso one hexside to the left or right while keeping their feet pointed straight ahead during the Reaction Phase. This means that a BattleMech can move in one direction while firing in another. A BattleMech's upper-body firing arcs are determined by the direction in which its torso is turned, not by the 'Mech's facing; leg-mounted weapon firing arcs are always aligned with the feet.

When the BattleMech's torso rotates, all upper-body firing arcs rotate with it as shown on the diagram.

Prone 'Mechs may not twist their torsos.

| Torso Forward | Torso Twisted Left | Torso Twisted Right |
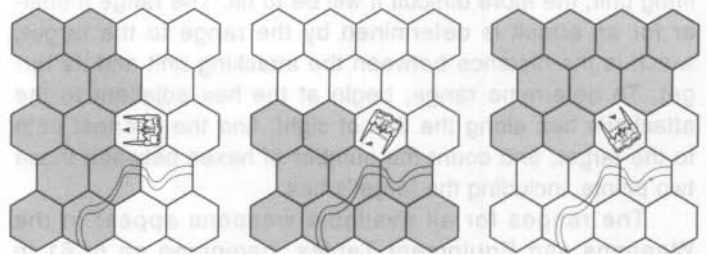
Turret-mounted weapons in vehicles can be pointed to fire through any hexside, per the **Torso Twist/Turret Rotation** rules, pp. 12–18. Treat turret arcs like the front arc, except that they are defined by the hexside at which the turret is currently pointing, not the hexside toward which the vehicle is facing.

FIRING WEAPONS

After a player has determined that a target is within line of sight and the firing arcs of his weapons, the unit may make one or more weapon attacks. The player uses the MechWarrior's Gunnery skill as the base to-hit number for each attack. For each weapon he will fire, the player determines if the shot is more or less difficult than normal by factoring in range, terrain, movement, and other conditions. These factors will add modi-

fiers to the base to-hit number to create a modified to-hit number. The more difficult the shot is because of distance, concealment by terrain, or movement, the higher the modified to-hit number. The player then rolls 2D6 to see if the attack hits the target. If the result is greater than or equal to the modified to-hit number, the attack hits its target. If the fired weapon requires ammunition, the player marks off one shot of ammunition. Weapons may be fired only once per turn.

Base To-Hit Number

The base to-hit number for a weapon attack is equal to the firing pilot's Gunnery Skill level. For exceptions, see **Infantry**, p. 45.

Modified To-Hit Number

The modified to-hit number equals the base to-hit number plus all modifiers for range, minimum range, movement, concealment, and other factors discussed in **To-Hit Modifiers**, below. If the modified to-hit number is greater than 12, the shot automatically misses. If a player determines that his unit's declared attack will automatically miss, he can choose not to make the attack, thereby avoiding wasting the ammunition and building up heat. He may not switch his attack to another target.

To-Hit Modifiers

The base to-hit number may be modified by a number of factors, including range, terrain, movement, multiple targets, heat and damage, and prone and immobile targets. All modifiers are cumulative.

Range Modifier: The farther away the target is from the firing unit, the more difficult it will be to hit. The range modifier for an attack is determined by the range to the target, which is the distance between the attacking unit and its target. To determine range, begin at the hex adjacent to the attacker's hex along the line of sight, find the shortest path to the target, and count the number of hexes between those two points, including the target's hex.

The ranges for all available weapons appear in the Weapons and Equipment Tables, beginning on p. 61 in **Construction**. A weapon's maximum range is divided into three distances: short, medium, and long. Find the distance to the target in the row for the appropriate weapon, and determine if the unit's current range is short, medium, long, or out of range. A shot at short range requires no to-hit modifier. A medium-range shot has a +2 to-hit modifier, while a shot at long range has a +4 modifier.

Weapons cannot hit a target at a distance greater than the weapon's long range, but units may fire at targets beyond long range just to get rid of ammunition.

Minimum Range Modifier: Some weapons, such as particle projector cannons, autocannons, and long-range missiles (LRMs), are designed to be fired at long-range targets. When fired at close-range targets, they lose much of their effectiveness. The minimum effective range of each available weapon, the range at which the weapon becomes less effective than normal, appears in the Weapons and Equipment Tables, p. 61.

If the target occupies the hex indicated as the minimum effective range, modify the to-hit number by +1. For every hex closer to the firer, add an additional +1 to the to-hit number. This represents the fact that it is harder to hit targets with some weapons at very close ranges than at maximum range.

A particle projector cannon (PPC) has a minimum effective range of 3 hexes. If a Warhammer is firing a PPC at a Crusader 3 hexes away, it adds a Minimum Range Modifier of +1 to its to-hit number. If the Crusader is only 2 hexes away, the modifier is +2. If the target is 1 hex away, the modifier is +3.

If the Warhammer in the example allows its target to move to within 2 hexes of its position, the player must modify the unit's to-hit number because the target stands inside its weapon's minimum effective range. The Base To-Hit Number is 4 because the MechWarrior's Gunnery Skill level is 4, and the Minimum Range Modifier is +2. This gives the attacking Warhammer a Modified To-Hit Number of 6, the same as if the target were at medium range.

Movement Modifiers: A moving target is harder to hit, and a moving attacker must constantly adjust his aim to compensate for his movement. To reflect this, a unit's to-hit number is modified by the movement of the attacking BattleMech and its target's movement, using the values found in the Weapons Fire Modifiers Table.

The target movement modifiers are based on the hexes traversed during the movement phase rather than the number of Movement Points spent. If the target moved both backward and forward in the turn, base the movement modifier on the number of hexes moved from the hex in which the unit last reversed its movement. For example, if the target moved backward 3 hexes and then forward 2 hexes, the target movement modifier would be based only on the final 2 hexes of movement, resulting in a Target Movement Modifier of 0.

Note that if the target jumped in the current turn, the player must add a jump modifier in addition to the modifier for the number of hexes moved.

During the Movement Phase, the attacking Warhammer from the previous example walked (+1 modifier), and its target moved a total of 4 hexes (+1 modifier). The combined movement modifier is +2. This modifier is added to the base to-hit number. This means that when the Warhammer fires his PPC at the Crusader, which is 2 hexes away, he uses a Modified To-Hit Number of 8 [4 (base to-hit) + 2 (minimum range modifier) + 2 (movement modifier)].

Terrain Modifiers: Terrain can affect the probability of a successful shot by forcing the attacker to account for intervening land features and partial cover. Units can shoot through Light and Heavy Woods hexes under certain circumstances, but successful shots become more difficult the more wooded hexes lie between an attacker and its target. Water generally makes a BattleMech harder to hit, as does partial cover. Specific terrain modifiers appear below.

• **Light Woods.** Modify the to-hit number by +1 per hex of light woods between the attacker and the target. (If the treetops lie below the LOS between the units, do not apply this modifier.) Add an additional terrain modifier of +1 if the target occupies a Light Woods hex. The attacker may fire through up to 2 intervening Light Woods hexes as long as the modified to-hit number is less than 13.

• **Heavy Woods.** Modify the to-hit number by +2 per hex of heavy woods between the attacker and its target. (If the treetops lie below the LOS between the units, do not apply this modifier.) If more than 1 Heavy Woods hex lies between the attacker and the target, line of sight is blocked. Add an additional terrain modifier of +2 if the target occupies a Heavy Woods hex.

• **Water.** Units in Water hexes find movement difficult. The effect of moving through water is to limit their ability to avoid incoming effective attacks and launch effective attacks of their own. Add a terrain modifier of +1 to the to-hit number if the attacker is in a Water hex of Depth 1. Modify the to-hit number by −1 if the target occupies a Water hex of Depth 1. Because a BattleMech also receives a +3 partial cover modifier for standing in a Depth 1 Water hex, it would have a total terrain modifier of +2.

Water of Depth 0 has no effect on the to-hit number.

A BattleMech standing in a Depth 2 (or deeper) Water hex cannot fire on or be fired on by other units.

Hovercraft moving over water are considered to be at Depth 0 regardless of the actual depth of the Water hex they occupy.

• **Partial Cover.** Add a terrain modifier of +3 to the to-hit number if the target BattleMech is partially concealed (see **Line of Sight,** p. 21). When a BattleMech receives the partial cover modifier, resolve all damage on the BattleMech Punch Location Table, p. 30.

Multiple Targets Modifier: A player may declare that his BattleMech or vehicle will engage more than one target in a turn and allocate different weapons systems to fire at different targets.

For a BattleMech or vehicle to fire at more than one target, the multiple targets must all appear in the unit's front firing arc. The player designates one of the targets as the primary target. The remaining targets are considered secondary targets, and the player must add a +1 multiple targets modifier to the to-hit numbers for those attacks. This modifier is not cumulative—the modifier for the third and subsequent targets is still only +1.

This multiple targets modifier does not apply to physical attacks.

Infantry may only engage one target per turn.

Heat and Damage Modifiers: The attacking BattleMech may be forced to modify its base to-hit number for current combat damage and heat build-up. Modifiers for these conditions are discussed in **BattleMech Critical Hits,** p. 29, and **Building Up Heat,** p. 38. The Heat Scale section of the record sheets summarizes the modifiers for the effects of heat build-up. Note that some BattleMechs are designed without certain arm actuators and do not suffer the +1 modifier for that actuator being destroyed.

Firing at Immobile Targets: If a unit chooses to fire at an immobile target such as a building, a wooded hex, or a unit that is shut down or whose crew is unconscious, add a −4 modifier to the to-hit number. Note that this modifier does not apply to attacks

against active units that are simply remaining stationary, nor does it apply to prone BattleMechs or 'Mechs with destroyed gyros or two destroyed hip actuators. Such units are still assumed to be moving within their hex and must be fired upon as for a normal target.

Prone BattleMechs

Prone BattleMechs may still make weapons attacks, and, because they are largely stationary, they often make better targets.

Firing When Down: A BattleMech that has fallen or dropped to the ground may fire some of its weapons as long as neither of its arms has been destroyed. The pilot uses one arm to

support the BattleMech as it fires, and so the weapons on that arm cannot fire. The pilot may fire all the weapons mounted on the other arm, and the BattleMech may fire any weapons mounted in its head or torso. A prone BattleMech may not fire its leg-mounted weapons. Add a +2 to-hit modifier for firing when down.

Attacking Prone Targets: A BattleMech that has fallen or is prone makes an easier target for an opponent in an adjacent hex, and a more difficult target at longer ranges. Apply a –2 modifier to the to-hit number of any physical or weapon attack made against a prone BattleMech from an adjacent hex. Add a +1 to-hit modifier for all other attacks made against a prone 'Mech.

WEAPONS FIRE MODIFIERS TABLE

Attacker	Modifier
Movement	
Stationary	None
Walked	+1
Ran	+2
Jumped	+3
BattleMech Damage	
Sensor Hit	+2
Shoulder	+4 for weapons in arm
Arm Actuator (each)	+1 for weapons in arm
Heat	
8–12	+1
13–16	+2
17–23	+3
24+	+4
Prone	+2
Range and Terrain	
Range	
Short	None
Medium	+2
Long	+4
Minimum Range	+1 at minimum range, additional +1 per hex less than minimum range
Light Woods	+1 per intervening hex; +1 if target in Light Woods
Heavy Woods	+2 per intervening hex; +2 if target in Heavy Woods
Water	
Depth 1	–1 to hit a BattleMech in Water hex; use BattleMech Punch Location Table
	+1 to hit for BattleMech firing from Water hex
Depth 2	BattleMechs cannot fire into or out of Depth 2+ water
Target	
Partial Cover	+3 (use BattleMech Punch Location Table)
Prone	–2 from adjacent hex; +1 from all others
Secondary Target	+1
Immobile	–4
Movement	
Moved 0–2 hexes	0
Moved 3–4 hexes	+1
Moved 5–6 hexes	+2
Moved 7–9 hexes	+3
Moved 10+ hexes	+4
Jumped	+1

Use the BattleMech Hit Location Table, p. 28, in the normal manner for determining the hit location. Note that the facing of a prone BattleMech is determined in **Facing after a Fall**, p. 20.

The only physical attacks that can be made against a prone BattleMech are kicking, charging, or death from above. Determine the location of successful attacks of this type using the appropriate column of the BattleMech Hit Location Table. Note that hit location from death from above attacks against prone 'Mechs is determined using the Rear column of the table, regardless of the attack direction.

A Warhammer carrying a pilot with a Gunnery Skill of 4 declares it will fire its PPC at a Crusader 2 hexes away (+2 minimum range modifier), with 2 hexes of Heavy Woods giving the Crusader cover (1 hex between the two 'Mechs and the hex the Crusader occupies, a +4 terrain modifier). The Warhammer walked in this turn (+1 movement modifier), and the Crusader jumped (+1 movement modifier) 4 hexes (+1 movement modifier). This makes the Modified To-Hit Number 13 (4 + 2 + 4 + 1 + 1 + 1 = 13), which means the shot will automatically miss. The Warhammer pilot prudently decides to abort the attack, avoiding the PPC's massive heat build-up.
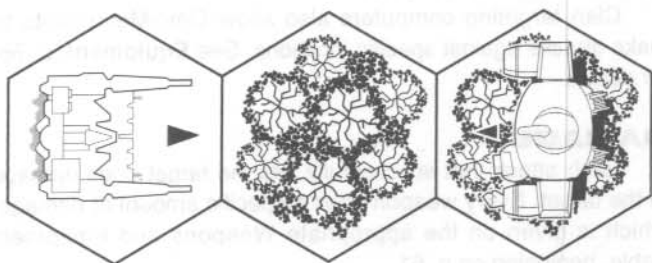
TO-HIT ROLL

For each attack, the player makes a to-hit roll by rolling 2D6. If the result is equal to or greater than the modified to-hit number, the attack succeeds.

Missile Hits

When a player launches a missile attack, the damage inflicted by a hit (a successful attack) depends on how many of the fired missiles actually reached the target.

To make a missile attack, the player calculates the modified to-hit number and makes the to-hit roll, just as for other weapons. On a successful attack, the player must also determine how many of the missiles hit the target by rolling 2D6 and consulting the Missile Hits Table.

First, find the number of missiles fired on the top row of the table. Cross-refer this number to the dice roll result in the left column. The result is the number of missiles that actually hit the target. Note that some advanced weapon systems modify this roll to reflect their greater accuracy. Also, the target's anti-missile systems may reduce the number of missiles that actually hit. See **Equipment**, p. 66, for details.

| Dice Roll (2D6) | Number of Missiles Fired |

MISSILE HITS TABLE							
Dice Roll (2D6)	\textit{Number of Missiles Fired}						
	2	4	5	6	10	15	20
2	1	1	1	2	3	5	6
3	1	2	2	2	3	5	6
4	1	2	2	3	4	6	9
5	1	2	3	3	6	9	12
6	1	2	3	4	6	9	12
7	1	3	3	4	6	9	12
8	2	3	3	4	6	9	12
9	2	3	4	5	8	12	16
10	2	3	4	6	8	12	16
11	2	4	5	6	10	15	20
12	2	4	5	6	10	15	20

An Archer fires its 20-pack long-range missile launcher and hits its target. The attack is successful, and the attacking player must now determine how many of his 20 missiles actually hit the target. He rolls 2D6 with a result of 8. He finds that number in the left-hand column of the Missile Hits Table, then reads across the row to the 20 missiles column, which shows that 12 of his missiles reached their target.

HIT LOCATION

When an attack hits its target, the firing player must determine precisely where the attack hit the target. Hit location is determined by the direction of the attack and the facing of the target.

Attack Direction

When an attack hits a BattleMech or vehicle, it hits from either the front, rear, left, or right side of the target.

Lay a straightedge from the center of the attacker's hex to the center of the target's hex. Compare the hexside crossed by the straightedge to the diagram below to find the side of the unit hit by the fire. If the straightedge crosses exactly at the intersection of two sides, the defender chooses which side is hit by the attack.

To determine which side of a BattleMech is hit, use the facing of a standing BattleMech's feet to determine its Front side, regardless of torso twist. If the target BattleMech is prone, use the hexside toward which its head is pointing as its facing. The side on which a vehicle is hit is based on the alignment of its Front side. Vehicle Hit Location Tables appear in **Vehicles**, p. 44.

Hits on infantry and buildings do not rely on the direction of the attack. Players who make a successful attack against these targets need not determine attack direction or hit location. Detailed explanations for assigning damage to infantry and buildings appear in their respective sections.
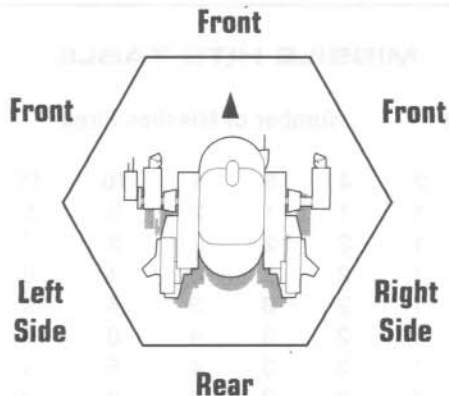
Determining Hit Location

To determine the exact location of a hit, the attacker rolls 2D6 and consults the appropriate column of the BattleMech or Vehicle Hit Location tables.

In the case of missiles, treat each short-range missile (SRM) and every 5 long-range missiles (LRMs) as a separate attack for purposes of determining hit location. For LRMs, group the missiles that hit into clusters of 5; in other words, form as many 5-point groups as possible, assigning any remaining points to one smaller group, and determine a hit location for each cluster.

BATTLEMECH HIT LOCATION TABLE

Dice Roll (2D6)	Left Side	Front/Rear	Right Side
2*	L. Torso (critical)	C. Torso (critical)	R. Torso (critical)
3	Left Leg	Right Arm	Right Leg
4	Left Arm	Right Arm	Right Arm
5	Left Arm	Right Leg	Right Arm
6	Left Leg	Right Torso	Right Leg
7	Left Torso	C. Torso	Right Torso
8	C. Torso	Left Torso	C. Torso
9	Right Torso	Left Leg	Left Torso
10	Right Arm	Left Arm	Left Arm
11	Right Leg	Left Arm	Left Leg
12	Head	Head	Head

*A result of 2 may inflict a critical hit. Apply damage to the armor in that section in the normal manner, but the attacking player also rolls once on the Determining Critical Hits Table, p. 29.

An Archer hits its target with a medium laser. The straightedge shows that the attack is being made against the target's left side. The attacking player rolls 2D6 to determine the hit location and has a result of 8. Consulting the column for left-side hits, he finds that his medium laser hits the target's center torso.

Aimed Shots

Players may make aimed shots against BattleMechs that are shut down or whose pilots are unconscious using any weapons other than missile launchers and LB-X autocannon firing cluster munitions. When firing on an immobile BattleMech (see **Firing at Immobile Targets**, p. 25), the attacking player can make an aimed shot by naming a target location. The player makes the to-hit roll, using the standard −4 to-hit modifier for firing at an immobile target. If the attack is successful, the player rolls again; on a result of 6, 7, or 8, his shot hits the designated location. For any other result, the player rolls normally on the BattleMech Hit Location Table.

If the attacker is taking an aimed shot at the target BattleMech's head, modify the to-hit number by +3 rather than the normal -4. If the shot hits, the player rolls 2D6. On a result of 8 or greater, the shot hits the head. For any other result, roll normally on the BattleMech Hit Location Table.

If the attacker misses an aimed shot but rolls the intended location on the BattleMech Hit Location Table, the effect is as if the aimed attack succeeded.

Clan targeting computers also allow OmniMech pilots to make attacks against specific locations. See **Equipment**, p. 66, for details.

DAMAGE

Each attack that successfully hits the target does damage to the target. Every weapon does a specific amount of damage, which is given on the appropriate Weapons and Equipment Table, beginning on p. 61.

Each missile type does the same amount of damage at any range, but the number of missiles that hit determines how much damage a missile attack inflicts. Long-range missiles have a Damage Value of 1 and short-range missiles have a Damage Value of 2 for each missile that hits its target.

Recording Damage

Every time a location takes damage, the player of the targeted BattleMech or vehicle finds the appropriate hit location on the record sheet's Armor Diagram, then checks off one box on the Armor Diagram at the appropriate location for every point of damage taken. When all the armor boxes at that location have been checked off and the target takes additional damage to that location, the damage transfers to the internal structure of the BattleMech or vehicle, and the player checks off the appropriate number of boxes on the Internal Structure Diagram. When a hit strikes an unarmored location, check off one box in the Internal Structure Diagram per point of damage taken. When all of the internal structure boxes in a given location have been checked off, that location has been destroyed and all its functions are lost. Any weapons, equipment, and heat sinks mounted there are totally destroyed.

COMBAT

If a BattleMech's side torso has all of its internal structure destroyed, the corresponding arm is also blown off (see **BattleMech Critical Hit Effects**, p. 30). The corresponding leg is not damaged.

Hits against infantry and buildings are recorded differently from hits on BattleMechs and vehicles. See **Infantry**, p. 45, and **Buildings**, p. 40, for details.

A Warhammer's left arm takes hits from a PPC (Damage Value 10), a large laser (Damage Value 8), and two 5-point clusters of LRMs (Damage Value of 1 per missile hit, 5 points per cluster). Before this turn, the BattleMech's 20 Armor points in that arm were undamaged. The cannon hit reduces the Armor points by 10, so 10 boxes are checked off. The laser hit knocks off 8 points, and 8 more boxes are checked off, leaving 2 boxes. The first cluster of missiles then reduces the armor by another 5 points, 3 points more than the remaining armor on that arm.

These 3 points reduce the Internal Structure Value, and so 3 boxes are checked off the Internal Structure Diagram, leaving only 8 of the original 11. The last group of missiles reduces the internal structure by another 5 points, and the player checks off 5 more boxes from the Internal Structure Diagram, leaving 3. If the Warhammer's left arm takes a hit from a weapon with a Damage Value of 3 or more, it will be completely destroyed and all of the weapons and other equipment mounted there lost.

Transferring Damage

BattleMechs can survive the destruction of a single body section. If a section is destroyed and the same location takes another hit, or excess damage remains from the shot that destroyed the location, that damage transfers to (affects) the outer armor of the next most logical location. Excess ammunition-explosion damage is transferred directly to the internal structure of the next most logical location.

Damage to a missing arm or leg transfers to the torso on the same side (left leg or arm damage is transferred to the left torso, and so on). Additional damage to a destroyed side torso location transfers to the center torso.

Damage from the rear firing arc that hits a missing limb is transferred to the appropriate rear torso location. For example, damage from the rear that hits a missing left leg would be transferred into the left rear torso.

Damage Transfer Diagram

CRITICAL DAMAGE

Every time the internal structure of a BattleMech or vehicle takes damage, either from a weapon attack,

physical attack, or an ammo explosion triggered by excess heat, an internal component may take critical damage.

To determine whether a unit's internal structure takes critical damage from a successful attack, the attacking player rolls 2D6 and consults the Determining Critical Hits Table. On a result of 8 or higher, the target unit takes critical damage. The higher the result, the more serious the damage. If the unit takes critical damage, the defending player rolls 2D6 and consults the unit's Critical Hit Table to determine the precise location of the damage.

Each successful attack that damages internal structure creates only one chance for the attacker to inflict a critical hit, regardless of the number of internal structure boxes that a single weapon (or other attack) destroyed. That player rolls 2D6 only once. Units may also take critical damage if the attacking player rolls certain results on the various Hit Location Tables.

The location of the damage determines the exact nature of the critical hit. Each part of a BattleMech's body can be affected by several types of critical hits. Furthermore, every type of BattleMech can suffer different critical hits, depending on the array of weapons and other equipment it carries. The Critical Hit Table for each type of BattleMech appears on the record sheet for that type. A partially blank Critical Hit Table that can be customized for all BattleMechs is provided on all blank BattleMech Record Sheets. The Critical Hit Tables for the various types of vehicles appear in **Vehicles**, p. 44.

DETERMINING CRITICAL HITS TABLE

Dice Roll (2D6)	Effect
2–7	No Critical Hit
8–9	Roll 1 Critical Hit Location
10–11	Roll 2 Critical Hit Locations
12	Head/Limb Blown Off/Roll 3 Critical Hit Locations*

*Roll 3 critical hit locations if the section struck is a torso.

BattleMech Critical Hits

When an attacker inflicts a critical hit on a target, the defending player finds the damaged location on the Critical Hit Table on his BattleMech's record sheet, then rolls dice for each critical hit and marks off the damage inflicted on the Critical Hit Table.

Head or Leg Hits: If the critical hit is inflicted on the BattleMech's head or legs, roll 1D6, find the result on the Critical Hit Table, and mark off the damaged location. If the critical location rolled cannot take a critical hit or has already been destroyed by a critical hit, roll the die again.

Torso or Arm Hits: If the critical hit strikes the torso or arms of the BattleMech, the player rolls both dice. The result of

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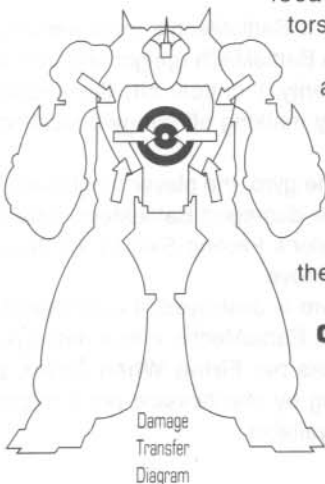
the first die tells which half of the Critical Hit Table for that location is affected, and the result of the second die identifies the location hit. The Critical Hit Table for these locations is divided into two sets of 6 critical slots.

The result of the first die identifies which set of slots takes the hit. On a result of 1, 2, or 3, the shot hits a location in the first set of critical slots. On a result of 4, 5, or 6, the attack hits a location in the second set of critical slots.

The result of the second die roll identifies the critical slot that takes the hit. If the critical location rolled cannot take a critical hit or has already been destroyed by a critical hit, roll both dice again.

A Wolfhound takes a critical hit to the left arm. The defending player rolls the first die with a result of 3. This means the critical hit will affect a location in the first half of the critical hit table for the left arm (labeled 1). The player rolls the second die with a result of 4, inflicting a critical hit on the 'Mech's hand actuator.

Each weapon and other piece of equipment fills at least one critical hit location on the Critical Hit Table. If the player rolls damage for a location for which there is no component, or a location which is marked Endo Steel, CASE, or Ferro-Fibrous, or a location that has already taken a critical hit, he rolls again. If all of the possible critical hit locations in the damaged area have already taken critical hits in previous phases, the critical hit transfers to the next location per the Damage Transfer Diagram. When the last possible critical hit location in an area is destroyed, subsequent critical hits to that area in the same phase will not transfer. Critical hits to that area in later phases, however, will transfer normally. Center torso and head hits do not transfer.

Note that some weapons, double heat sinks, and other equipment take up multiple locations on the Critical Hit Table. A single critical hit disables any weapon or equipment except the engine, gyro, and sensors. (However, a heat sink critical hit destroys only the specific heat sink that is hit.) Critical hits on additional locations that the weapon, double heat sink, and so on occupy have no further effect.

BattleMech Critical Hit Effects

Each type of critical hit affects a 'Mech's performance in a specific way, as described below. The critical hit locations are arranged alphabetically by location; the area of the 'Mech containing each location (head, leg, torso, arm, and weapons) is noted in parentheses.

Ammunition: If a critical hit destroys a location carrying ammunition, the ammo explodes. The MechWarrior automatically takes 2 Damage Points through his neurohelmet as a result of the electronic systems exploding. The BattleMech takes damage to its internal structure.

When one ammo slot in a specific location explodes, all of the ammo in that location explodes. Calculate the total Damage Value of all ammo carried in that location and apply that total to the Internal Structure Diagram. If the location is not protected

by CASE, any excess damage transfers to the internal structure of the next location. For locations mounted with CASE, apply the excess damage to the armor (the rear armor, for torso locations), then vent any remaining damage without further harm. See **Equipment**, p. 68.

A critical hit to an ammo location only explodes the ammo in that location. It explodes with a force equal to the ammo's Damage Value times the shots remaining. Missile ammo explodes with a force equal to the number of missiles remaining times their Damage Value. For example, 1 full ton of machine gun ammo explodes with a force of 400 points of damage (2 x 200), while 1 full ton of SRM-2 ammo explodes with a force of 200 points of damage (2 x 2 x 50).

Arm Actuator (Arm): This critical hit destroys the actuator in the BattleMech's upper or lower arm. Add a +1 modifier to the to-hit number for weapons firing from that arm and a +2 modifier for any punches.

These effects are cumulative: if both the upper and lower arm actuators are destroyed, modify the to-hit number for weapons fire by +2 and punches by +4.

Arm Blown Off (Arm): This critical hit occurs when the player rolls a result of 12 on the Determining Critical Hits Table when the location hit is an arm. It blows off the arm, destroying all weapons mounted there. The arm may be picked up and used as a club per the rules for **Clubbing**, p. 33.

Cockpit (Head): A critical hit to the cockpit destroys that location, kills the MechWarrior, and puts the BattleMech out of commission for the game.

Engine (Torso): BattleMech engines have 3 points of shielding. Each critical hit to the engine location destroys 1 point of shielding. As points of shielding are destroyed, the amount of heat escaping from the BattleMech's fusion drive increases.

The first hit increases the 'Mech's heat build-up by 5 points per turn. The second hit results in 10 (total) points of added heat build-up per turn, and the third critical hit to this location shuts down the engine and puts the BattleMech out of commission for the rest of the game. Though XL engines take up additional locations (in the side torsos), 3 critical hits also shut down an XL engine.

Gyro (Torso): The gyro is a BattleMech's most sensitive piece of machinery. It keeps the BattleMech upright and able to move. The gyro can survive only 1 critical hit; the second destroys it. Record these hits by marking off the gyro locations on the Critical Hit Table.

After the first critical hit to the gyro, the player must make a Piloting Skill Roll every time the damaged BattleMech runs or jumps, modifying the MechWarrior's Piloting Skill by +3. Make this roll at the end of each such move.

When a BattleMech's gyro is destroyed, it automatically falls and cannot stand up again. BattleMechs with a destroyed gyro may make weapons attacks per **Firing When Down**, p. 26, and may change their facing by one hexside per turn provided they have at least 1 MP available.

Hand Actuator (Arm): A critical hit to the hand actuator destroys the muscles controlling the BattleMech's wrist and hand. Add a +1 to-hit modifier to all punches made with this arm. This effect is cumulative with the effects of destroyed arm actuators.

Head Blown Off (Head): A hit blows off a BattleMech's head when the player rolls a result of 12 on the Determining Critical Hits Table when the location hit is the head. This critical hit destroys the BattleMech's head section, kills the MechWarrior, and puts the BattleMech out of commission for the rest of the game.

Heat Sinks: One critical hit to a heat sink destroys the heat sink and reduces the BattleMech's ability to dissipate heat. For example, if a BattleMech is designed to dissipate 16 points of heat per turn, and 3 of its heat sinks have been destroyed, it can now only dissipate 13 points of heat per turn.

A double heat sink takes up more than one location on the Critical Hit Table, but it is destroyed by a single critical hit. Additional critical hits to a multi-location heat sink produce no further effects. Each double heat sink destroyed eliminates 2 points of heat dissipation ability.

Hip (Leg): A hip critical hit freezes the affected leg in a straight position. After a hip critical hit, the BattleMech's Walking MP is cut in half (rounding up), ignoring any movement modifiers from previous critical hits on that leg. Add a +2 modifier to any subsequent Piloting Skill Rolls required, and make a Piloting Skill Roll every turn that the damaged BattleMech runs. The 'Mech cannot make Kick attacks.

A critical hit to the second hip reduces the BattleMech's Movement Points to 0 and adds another +2 modifier to its Piloting Skill Roll target number.

Jump Jet Exhaust Port (Leg/Torso): When a jump jet exhaust port takes a critical hit, that jump jet can no longer deliver thrust. This decreases the distance the BattleMech can jump. The jump jet itself is not damaged; the designers provided protection from weapons fire for this equipment so as to prevent the devastating explosion that would occur if it were hit. The control system senses the damage to the exhaust port and shuts down the engine that uses that port. For each exhaust port hit, reduce the BattleMech's Jumping MP by 1.

Leg Actuator (Leg): A critical hit to a leg actuator destroys the muscle (actuator) in the upper leg, lower leg, or foot. For each leg actuator damaged, reduce the BattleMech's Walking MP by 1 and add a +1 modifier to any subsequent Piloting Skill Roll.

Leg Blown Off (Leg): This critical hit occurs when the player rolls a result of 12 on the Determining Critical Hits Table when the location hit is a leg. When a BattleMech's leg is blown off, the 'Mech automatically falls and takes normal falling damage, though it might be able to stand up again. See **Leg Destruction**, below. The leg may be picked up and used as a club, per the rules for **Clubbing**, p. 33.

Leg Destruction (Leg): When a BattleMech loses one leg, either through a critical hit or the destruction of the leg's internal structure, the BattleMech automatically falls down. In the next turn the BattleMech may attempt to stand on its remaining leg, but the pilot must add a +5 modifier to the Piloting Skill Roll plus any modifiers for other damage. If the BattleMech manages to stand, it has a Walking MP of 1. To account for the missing leg, add +5 to any Piloting Skill Roll made thereafter. The BattleMech may still jump (minus the power of the jump jets on the missing leg), but the pilot must make a Piloting Skill Roll each time the 'Mech lands.

Life Support (Head): A BattleMech's life-support system protects its pilot from the machine's internal heat and keeps him alive on airless worlds and in hostile environments. In **CityTech**, the life-support system's main function is to protect the pilot from the heat generated by the 'Mech's fusion reactor, movement, and weapons systems.

Any critical hit knocks this system out permanently and leaves the pilot vulnerable to increased heat. The MechWarrior takes 1 point of damage every turn that the BattleMech's internal heat ranges from 15–25, and 2 points of damage for every turn that its internal heat is above 25 on the Heat Scale.

Sensors (Head): When a BattleMech takes a critical hit to the sensors, add a +2 modifier to the to-hit number every time the 'Mech fires its weapons. A second sensor hit makes it impossible for the BattleMech to fire any of its weapons.

Shoulder (Arm): A critical hit to this location freezes the shoulder joint. The 'Mech may not punch with that arm. Add a +4 modifier to the to-hit number for all attacks made with weapons mounted on that arm. After a shoulder critical hit, ignore all other weapons fire modifiers from arm critical hits; the total to-hit modifier for weapons and actions involving the damaged shoulder is +4.

Weapons: Most weapons systems are surprisingly delicate, and so a single critical hit destroys a weapon. Though some

weapons systems occupy more than one location on the Critical Hit Table, the first critical hit destroys the weapon. Additional critical hits to a multi-location weapon have no further effect, other than to make the equipment more difficult to repair. For example, a particle projector cannon mounted on a BattleMech's arm fills 3 critical slots. However, the cannon is destroyed as soon as one of its three critical locations takes a hit.

DESTROYING A UNIT

Under the specific conditions described below, a unit must be considered destroyed. Note that a "destroyed" unit may not be actually physically destroyed. It simply is rendered tactically useless and referred to as a "mission kill."

BattleMechs

A BattleMech is considered destroyed and out of the game if its MechWarrior dies or the BattleMech suffers 3 engine hits. Note that the destruction of the head, cockpit, or center torso has the same effect and renders a BattleMech destroyed.

Vehicles

A vehicle is considered destroyed and out of the game when all of its internal structure boxes in one section are marked off, or when its Critical Hit Table indicates that it is destroyed.

Infantry

Unarmored infantry platoons are considered destroyed when all boxes in the unit row have been marked off. Battlearmored units are destroyed when all boxes in each unit member's row have been marked off.

AMMUNITION EXPENDITURES

BattleMechs carry a limited amount of ammunition for missile launchers, machine guns, autocannons, and other ballistic and missile weapons. The record sheet for each BattleMech indicates the available ammo bins and number of shots for each weapon on the Critical Hit Table. The player should keep a tally on the Critical Hit Table, making a hatch mark next to the appropriate ammo bin every time he fires the corresponding weapon. When the number of marks equals the amount of ammo carried in that location, that bin is empty. If no other bins in the BattleMech carry that type of ammo, the weapon is out of ammunition and cannot be fired for the rest of the game.

PHYSICAL ATTACKS

BattleMechs can make six different types of physical attacks: punching, clubbing, pushing, kicking, charging, and death from above. Vehicles' only physical attack is a charge (ram). In order to make a physical attack, the unit must be adjacent to its target and the target must be within the forward firing arc (see **Punching**, **Charging**, and **Death from Above** for exceptions).

Each type of physical attack has a unique base to-hit number, modified by terrain, movement of both the attacking unit and its target, and the attacker's current critical damage to its arms and/or legs. The damage location for physical attacks is determined using specific Hit Location Tables, but is recorded in the same way as damage from weapons fire.

In many cases, the player calculates damage inflicted by physical attacks by dividing the tonnage of the attacking BattleMech by a given number, rounding fractions up.

A BattleMech may use only one form of physical attack per turn. For example, BattleMechs may not punch and kick in the same turn.

PUNCHING

In a single turn, a BattleMech can either deliver a punch using its arm or fire the weapons on that arm, but may not do both. A BattleMech does not need hands (or hand actuators) to punch. It may punch with one or both arms. Weapons mounted in the torso, legs, or head may be fired in the same turn as a punching attack is made without affecting the punch.

A BattleMech cannot make a punching attack using a shoulder that has suffered critical damage, and any arm actuator damage on the punching arm makes success more difficult. All punching attacks must be made against targets in the attacking BattleMech's forward or side firing arcs. If the target is in the right or left arc, then only the right or left arm, respectively, may punch. If the target is in the forward arc, then both arms may be used in the punching attack.

The Base To-Hit Number for a punch is 4, modified by movement and terrain just as for weapons fire; by +2 for each arm actuator destroyed or not present; and by +1 if the hand actuator has been destroyed or is not present. Note that BattleMechs not equipped with a hand on the punching arm must add the +1 modifier for not having a hand. Likewise, BattleMechs that do not come equipped with a lower arm actuator on the punching arm must add a +2 modifier to the to-hit number.

The player makes a separate to-hit roll for each arm making a punching attack. The punch from each arm has a Damage Value of 1 for every 10 tons (or fraction of 10 tons) that the attacker weighs. Reduce the damage by half for each arm actuator damaged or not present, with these effects being cumulative.

BATTLEMECH PUNCH LOCATION TABLE

Dice Roll Result (1D6)	Left Side	Front/Rear	Right Side
1	Left Torso	Left Arm	Right Torso
2	Left Torso	Left Torso	Right Torso
3	Center Torso	Center Torso	Center Torso
4	Left Arm	Right Torso	Right Arm
5	Left Arm	Right Arm	Right Arm
6	Head	Head	Head

In other words, if both arm actuators are missing, reduce the damage to one-quarter of its original value (fractions rounded down). Determine the damage location for BattleMech targets by rolling 1D6 and consulting the BattleMech Punch Location Table.

BattleMechs cannot make punching attacks against ground vehicles or infantry unless the BattleMech is one elevation level lower than normal because it is prone, on lower terrain, or standing in Depth 1 water.

An Archer *with a damaged upper arm actuator punches a* Warhammer *on the right side with one fist. Because the* Archer *is damaged, the player adds a to-hit modifier of +2 and reduces the normal damage by half. The Modified To-Hit Number is a 6 (4 + 2); the player rolls an 8 and hits the target. The* Archer *weighs 70 tons, and so its punch has a normal Damage Value of 7 (70 divided by 10), but this is reduced to 3 because of the damaged actuator. The attacking player rolls a 3, which means the attack hits the target's center torso. The player with the* Warhammer *records 3 points of damage by crossing 3 boxes off the Armor Diagram on his record sheet.*

CLUBBING

Whenever an attack blows off a leg or arm of a BattleMech, the limb remains lying in the hex where the BattleMech took the damage. The BattleMech that lost the limb, and other BattleMechs that later occupy that hex, may pick up the arm or leg and use it as a giant club. A BattleMech may not fire weapons or make physical attacks during the turn that it picks up a club.

Other objects may also be used as clubs. If the BattleMech is in a wooded hex, it may uproot a tree and use it as a club. Uprooted trees may be used for only 1 successful club attack. Girders from rubbled Medium, Heavy, or Hardened Buildings may also be used as clubs. To search the rubble for a suitable girder, the player must roll 2D6 during the Weapon Attack Phase of a turn. A result of 7+ is needed to find a girder in a rubbled Medium Building, a 6+ is needed for a rubbled Heavy Building, and a 5+ is needed to find a girder in a rubbled Hardened Building.

To attack another unit with a club, all the BattleMech's shoulders and hand actuators must be in working order and no arm-mounted weapons can have been fired in that same turn, though weapons mounted in the torso, legs, and head may be fired. The target must be in the forward firing arc.

The unit making the attack with a club makes a two-handed swing using a Base To-Hit Number of 4 modified by the normal to-hit modifiers for terrain and movement.

If any of the BattleMech's upper or lower arm actuators have been destroyed or are not present, add a punch modifier of +2 per missing arm actuator. A BattleMech attacking with a club does 1 point of damage for every 5 tons that the BattleMech weighs. Roll normally on the BattleMech Hit Location Table. Clubs may be used against any type of unit, but units that make a clubbing attack against infantry add an additional +3 to-hit modifier.

Hatchets

Some BattleMechs come equipped with hatchets. Like other weapons, hatchets have weight and take up one or more locations on the Arm section of the Critical Hit Table. To use the hatchet, a BattleMech must have a functioning hand actuator in the arm in which the hatchet is mounted.

A BattleMech uses a hatchet to make physical attacks per the standard clubbing attack rules, but need use only one arm for the attack, rather than two. Though a BattleMech may mount two hatchets, one in each arm, the pilot can make only one hatchet attack per turn. The pilot may fire weapons mounted on the arm not carrying the attacking hatchet in the Weapon Attack Phase.

Hits on a hatchet critical location represent damage to the shaft of the weapon. If a hatchet critical location takes a hit, the weapon is no longer functional.

PUSHING

A BattleMech uses both arms to make a pushing attack against its target. No arm-mounted weapons can be fired in the turn that a BattleMech makes a pushing attack. All torso-, leg-, and head-mounted weapons may be fired normally. Pushing attacks can be made against targets in the forward arc only.

The Base To-Hit Number for a push is 4, modified as usual for movement and terrain, and by +2 for each shoulder actuator destroyed. A successful push does not automatically damage the target. Instead, it moves the defending BattleMech into the adjacent hex in the direction that it is being pushed by the attacker. If the push is successful, the attacking BattleMech advances into the hex formerly occupied by its target. At the same time, the defender must make a successful Piloting Skill Roll or fall. Vehicles and infantry may not be pushed.
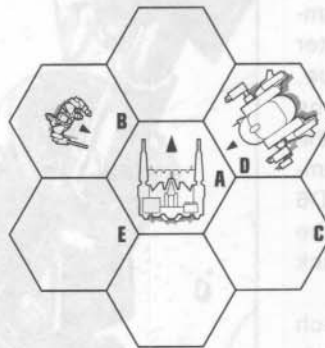
If the Warhammer *in Hex A is successfully pushed by the BattleMech in Hex B, it moves into Hex C. If the* Warhammer *in Hex A is successfully pushed by a BattleMech in Hex D, the* Warhammer *will be forced into Hex E. In both cases, the pilot of the* Warhammer *must make a Piloting Skill Roll to remain standing, and its attacker will advance into Hex A.*

KICKING

A BattleMech may only make a kicking attack with one leg per turn. No weapons mounted on that leg can fire in the turn in which the 'Mech kicks. To make a kicking attack, both hips of the attacking 'Mech must be undamaged, and the BattleMech's target must be in one of the 3 forward-arc hexes. The BattleMech may kick vehicles in its forward arc, or kick (stomp) a vehicle or infantry unit in the hex it occupies.

A player who declares that his BattleMech will make a kicking attack uses a Base To-Hit Number of 3, modified as usual by movement and terrain. Kicks have a Damage Value of 1 point for every 5 tons of the attacking BattleMech's weight. For example, a *Warhammer's* kick would inflict 14 Damage Points. Reduce this damage by half for each leg actuator damaged (on either leg), with these effects being cumulative. For example, if two leg actuators are missing, reduce the damage to one-quarter its original value, rounding fractions down. Determine the location of the damage by rolling 1D6 and consulting the BattleMech Kick Location Table.

A BattleMech that has been successfully kicked must make a Piloting Skill Roll. If the attacking BattleMech misses its kick, it must also make a Piloting Skill Roll.

When making kicking attacks, use all standard to-hit modifiers, including

BATTLEMECH KICK LOCATION TABLE

Die Roll Result	Left Side	Front/Rear	Right Side
1–3	Left Leg	Right Leg	Right Leg
4–6	Left Leg	Left Leg	Right Leg

−2 for attacks against prone BattleMechs from adjacent hexes. To determine the location of kicking damage to a prone BattleMech, use the BattleMech Hit Location Table (rather than the BattleMech Kick Location Table), using the hex side that the kick originates from as the attack direction.

BattleMechs can kick vehicles and infantry units, but use a +3 to-hit modifier for such an attack against infantry—infantry units tend to scurry out of the way when BattleMechs get too close, making them harder to hit. The side on which a vehicle takes damage is determined randomly if the BattleMech is attacking from the same hex.
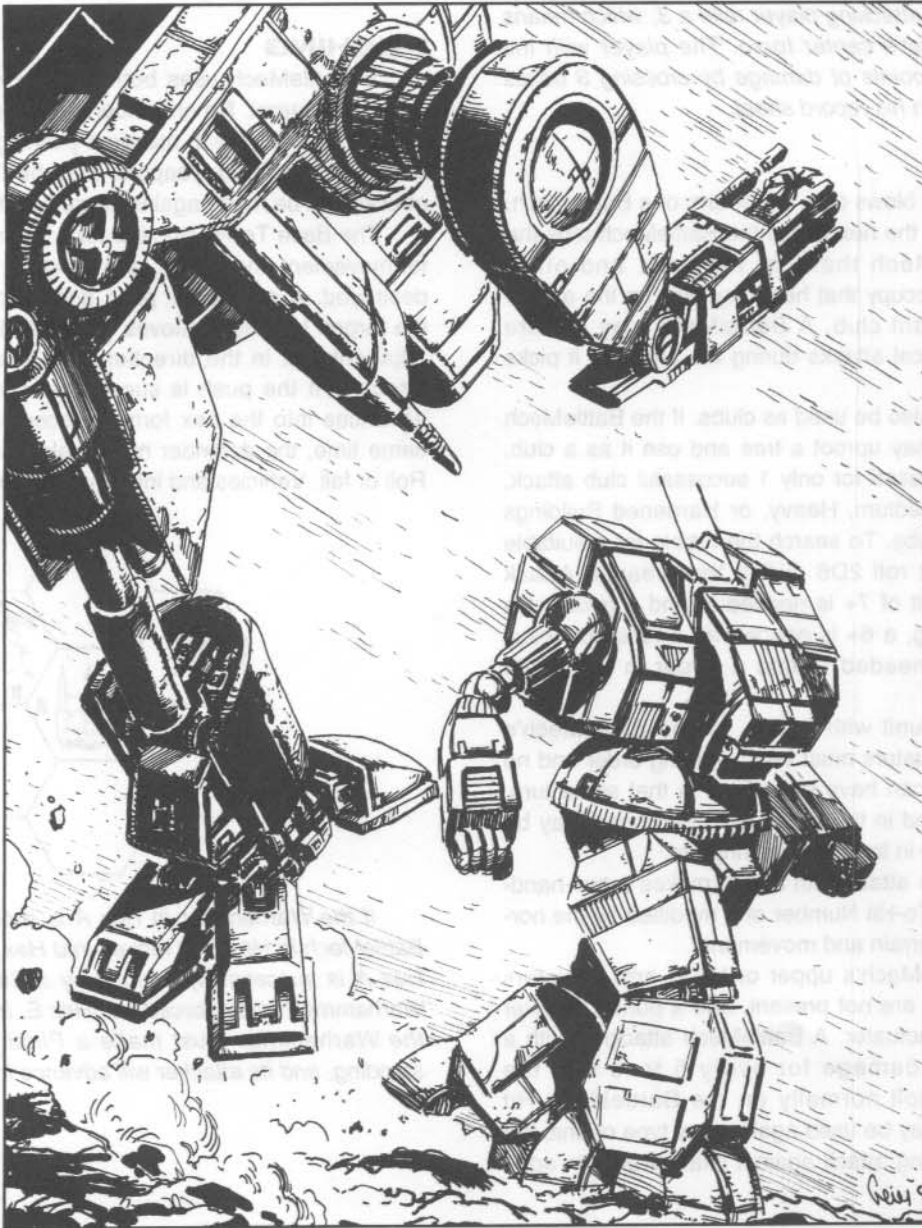
CHARGING

All BattleMechs and vehicles may make charging attacks. In order for a BattleMech to charge, both legs must be functioning. The unit may not have moved backward in the Movement Phase of the turn. The target must be in the hex directly in front of the charging unit at the beginning of the Physical Attack Phase; in other words, the charging unit must be able to enter the target unit's hex without turning. The charging unit may not make any weapon attacks in the same turn.

A BattleMech may not charge vehicles or infantry.

Charging attacks must be declared during the Movement Phase, but like all other physical attacks, they are resolved during the Physical Attack Phase. This means

that the charging unit can only attack units that have finished their movement.

The charging unit must spend Movement Points to enter the target hex, whether or not the charge is successful. If a unit does not have enough Movement Points left over from its Movement Phase to enter the target hex, it may not make a charging attack. In addition, if the target occupies terrain that the attacking unit is restricted from entering, the unit may not charge.

The Base To-Hit Number for a charge is 5, modified as usual for both the attackers and defender's movement. Whenever one BattleMech charges another, compare the MechWarriors' Piloting Skills and use the difference between the two skill levels as a Piloting Skill modifier to the to-hit roll. If the defending MechWarrior's skill level is lower, subtract the modifier from the to-hit number. If the attacker's Piloting Skill level is lower, add the modifier to the to-hit number.

A Black Hawk with a Piloting Skill level of 4 is charging an Archer with a Piloting Skill level of 5. Since the attacking MechWarrior's skill level is lower, the difference between the two is subtracted from the to-hit number, providing a −1 to-hit modifier. If the skill levels of the pilots were reversed, the attack would suffer a +1 to-hit modifier.

Damage

Both units take damage from the collision. The defender takes 1 point of damage for every 10 tons that the charging unit weighs, multiplied by the number of hexes moved by the attacker in the Movement Phase. The charging unit takes 1 point of damage for every 10 tons the target weighs. Round any fractions up.

Group the damage resulting from charging attacks into 5-point clusters. The attacking player rolls once on the appropriate Hit Location Table for each cluster.

If the attacker is charging a prone BattleMech, the defender takes damage on the appropriate column of the BattleMech Hit Location Table, but the damage to the attacker is taken on the BattleMech Kick Location Table.

If a unit charges a target that is in a building, the building absorbs damage as normal (see **Combat Effects** in **Buildings**, p. 42). The charging pilot also must make a Piloting Skill Roll modified by +3 in addition to the building modifier to avoid taking damage from entering the building (see **Movement Effects** in **Buildings**, p. 40). If the target unit must pass through walls as a result of a successful charge (the unit is pushed out of its position), the target pilot must make a Piloting Skill Roll modified by +3.

An Archer moves 4 hexes and declares a charging attack against another BattleMech. If the charging attack is successful, the defender takes 28 points of damage (7 for the Archer's tonnage multiplied by 4 for the number of hexes it moved).

Location after Attack

If the charging attack succeeds, the defending unit is forced to move just as if it had been pushed, and the attacker advances into the defender's hex. If the attacker misses the target, the player places the attacking unit in the right or left hex of its forward arc.

Falls

After any successful charging attack, both the attacking and defending BattleMechs must make Piloting Skill Rolls modified by +2. A failed Piloting Skill Roll means that the BattleMech falls in the hex it currently occupies and takes additional damage from the fall.

DEATH FROM ABOVE

BattleMechs can make a charging attack while jumping, resulting in a physical attack that is damaging to both the attacking BattleMech and its target. In effect, the charging BattleMech crashes into the target from 2 elevation levels above the target unit, using its feet and weight to inflict damage to the target's upper torso, arms, and head. The charging BattleMech risks taking damage to its legs, which are not designed for the enormous stress created by this attack. Finally, both BattleMechs will almost certainly fall.

This type of charge may actually cause less damage than a standard charging attack, but the damage is concentrated on the upper part of the target BattleMech. In fact, this attack has a 1 in 6 chance for a head hit, which is very high. Death from above attacks may also be made against vehicles and infantry. Resolve successful death from above attacks against a vehicle on the Front column of that vehicle's Hit Location Table. For death from above attacks against infantry targets, add an additional +3 to-hit modifier.

A BattleMech making a death from above attack is immune to physical attacks, but it may be the target of weapon attacks. See **Weapon Attack Phase**, below.

A BattleMech may only make one death from above attack against one target per turn.
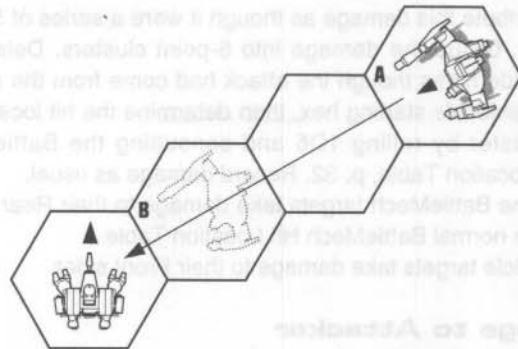
Weapon Attack Phase

Units make the death from above attack after the Weapon Attack Phase of the turn. For purposes of firing on the attacking unit, during the Weapon Attack Phase the attacking unit is considered to be adjacent to the target hex along the path that the attacking unit will travel during the jump and facing the target hex. It can be fired on as normal during the Weapon Attack Phase. The jumping unit does not receive the benefit of any terrain modifiers when being shot at and every other unit on the board has LOS to the attacking unit. The jumping unit cannot make any weapon attacks during this turn.

A *Stinger* is making a death from above attack from *Hex A* on a *Locust*. The *Stinger*'s path during the jump is as shown in the illustration. During the Weapon Attack Phase, the *Stinger* is considered to be in *Hex B*. The *Locust* may fire against the *Stinger*'s Front side with any weapons that it can bring to bear at a Range of 1.

If the attacking BattleMech takes damage during the Weapon Attack Phase that forces the pilot to make a Piloting Skill Roll, the player should roll as normal. A failed roll means that the attack automatically misses. Resolve the attacker's fall and ending location per the rules below.

A BattleMech does not count as stacked in a hex while executing a death from above attack until it completes its attack. As soon as it lands, normal stacking limits apply (see **Stacking**, p. 17).

Base To-Hit Number

The Base To-Hit Number for a death from above attack is 5, modified for the jumping movement of the attacker and the normal movement of the target, but not for terrain.

If the attack is successful, both BattleMechs take damage as determined below. If the attack misses, the jumping BattleMech crashes to the ground and takes damage (see **Damage to Attacker**, below).

Damage to Target

To determine damage to the target from a death from above attack, divide the weight of the attacking BattleMech by 10 and multiply the result by 3. For example, a *Spider* with a weight of 30 tons inflicts 9 points of damage to the upper part of the target.

Distribute this damage as though it were a series of 5-point punches. Group the damage into 5-point clusters. Determine the hexside hit as though the attack had come from the attacking BattleMech's starting hex, then determine the hit location of each cluster by rolling 1D6 and consulting the BattleMech Punch Location Table, p. 32. Record damage as usual.

Prone BattleMech targets take damage to their Rear sides, using the normal BattleMech Hit Location Table.

Vehicle targets take damage to their Front sides.

Damage to Attacker

The attacker takes damage from a successful attack on its legs as though the attacker had fallen 1 elevation level. To determine the amount of damage, divide the attacker's weight by 5, rounding up. Divide the result into 5-point clusters, then roll 1D6 for each cluster and consult the Front column of the BattleMech Kick Location Table to find the location hit.

Location after Attack

At the end of a death from above attack, the attacker lands in the target's hex. If the death from above attack is successful, the target is pushed 1 hex in the direction opposite the attack. If the attack fails, the target chooses an adjacent hex and moves

to it, even if immobile or prone. This motion might result in **Accidental Falls from Above** or a **Domino Effect**, p. 37.

Falls

A successful death from above attack may cause both BattleMechs to fall. Both MechWarriors must make Piloting Skill Rolls, the target adding a +2 modifier and the attacker adding a +4 modifier. If either unit fails this roll, the unit takes damage as from a 0-level fall.

On an unsuccessful attack, the attacker automatically falls, taking damage as though the 'Mech had fallen 2 elevation levels. To determine the amount of damage, divide the attacker's weight by 10 and multiply the result by 3. Divide the total damage into 5-point clusters, then roll 2D6 for each cluster and determine hit locations as though the BattleMech had landed on its back.

DIFFERENT ELEVATIONS

The rules for punching, clubbing, kicking, and charging attacks assume that the opposing BattleMechs are at the same elevation. Most physical attacks against vehicles occur only if the vehicle is being attacked by a unit at the same elevation. See **Vehicles**, p. 44, for exceptions.

A BattleMech may make a physical attack against another BattleMech only if both 'Mechs are within 1 elevation level of one another. The Different Elevations Table shows which types of physical attacks can be made in various situations. Note that players must use different Hit Location Tables to determine the location of damage from punching, clubbing, or kicking attacks against an opponent on various levels.

DIFFERENT ELEVATIONS TABLE	
Target is:	**Allowed Physical Attack**
1 level higher	Charge, Punch (use Kick table), or Club (use Kick table)
1 level lower	Charge, Kick (use Punch table), or Club (use Punch table)

Note: A death from above attack can always be made if the BattleMech has the necessary Jumping MP.

Physical Attacks by Prone BattleMechs

Prone BattleMechs can make only two types of physical attacks: thrashing attacks against infantry and punches against ground vehicles in the same hex. Vehicles take punch damage from prone attacks against their Front sides.

When a downed BattleMech and an infantry unit (armored or unarmored) occupy the same hex, the BattleMech may make

a thrashing attack by wildly waving its arms and legs in hopes of making contact with the infantry. The attack can only be made in Clear or Paved terrain and is automatically successful. This attack inflicts damage on the infantry equal to the BattleMech's tonnage divided by 3. If a BattleMech makes a thrashing attack, it cannot make any other attack in that turn, and the MechWarrior must make a Piloting Skill Roll to prevent damage to his BattleMech. If the pilot fails this roll, the BattleMech suffers normal falling damage.

ACCIDENTAL FALLS FROM ABOVE

A BattleMech that falls unintentionally takes and inflicts damage according to the following rules. When a BattleMech accidentally falls 2 levels or more into a hex occupied by another BattleMech, make a to-hit roll with a Base To-Hit Number of 7, modified by target movement and terrain. When a BattleMech accidentally falls 1 level or less into a hex occupied by another BattleMech, treat it as if resulting in a **Domino Effect**, below. Do not make a to-hit roll if the BattleMech falls into a hex occupied by an infantry or vehicle unit; accidental falls automatically miss infantry, and vehicles are automatically hit by an accidental fall and missed by the Domino Effect.

A BattleMech may not intentionally "accidentally" fall from above for any reason.

Falling BattleMech Hits Target

If the to-hit roll is successful (or if the target unit is a vehicle), treat the accidental fall as a successful death from above attack, with the following exceptions. If the "target" unit is a BattleMech, the falling 'Mech takes damage to its upper body. If there is more than one non-infantry unit in the target hex (friend or foe), determine randomly which will be the target unit.

Determine the amount of damage inflicted on the target unit by dividing the weight of the falling BattleMech by 10. Divide the damage into 5-point clusters, then roll 1D6 for each cluster and consult the BattleMech Punch Location Table. Determine damage to the falling ("attacking") BattleMech as normal for a fall, with the BattleMech falling on its Rear side. (Once it has fallen, a BattleMech that fell accidentally is assumed to be prone on its Front, as with all other prone BattleMechs.)

Falling BattleMech Misses Target

If the to-hit roll is not successful, the falling BattleMech lands in an adjacent hex, as close to the hex that it fell from as possible, and takes the standard damage from falling. No other units take damage.

DOMINO EFFECT

If a BattleMech accidentally falls 1 level or less or is forced into a hex occupied by another BattleMech, the second BattleMech is normally forced out of the hex in the direction of the push. The second BattleMech can avoid this by moving out of the hex, as long as it is neither facing the first BattleMech nor facing directly away from it.

The pilots of both BattleMechs must make a Piloting Skill Roll to avoid falling. When the domino effect push originates from one of a BattleMech's four side hexes, however, the BattleMech can avoid the domino effect by moving 1 hex directly forward or back, if it has sufficient MP remaining from the Movement Phase, if it is both mobile and standing, and if the player made a successful Piloting Skill Roll for that BattleMech. If the Piloting Skill Roll was not successful, the BattleMech would have fallen, and missed this chance to step out of the way.

The domino effect continues as long as BattleMechs remain in hexes adjacent to one another in the direction of the effect, and none of them manage to step out of the way.
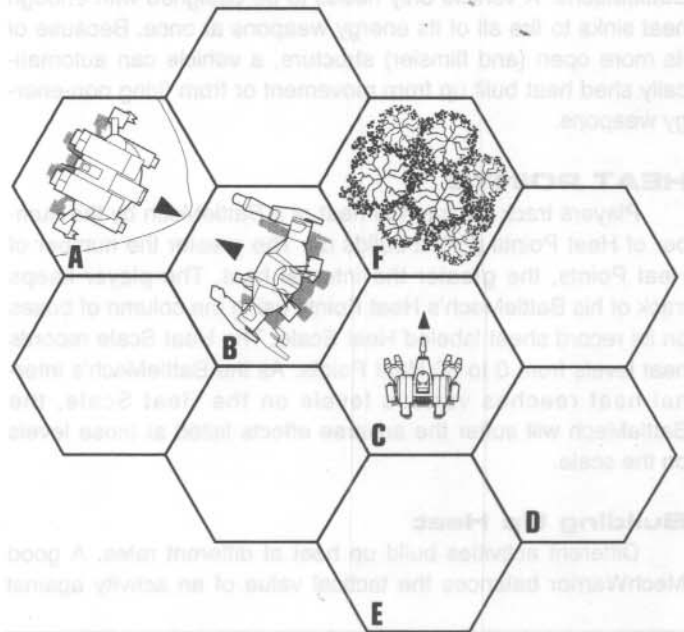
The BattleMech in Hex A has fallen 1 level into Hex B. The BattleMech standing in Hex B will be forced into Hex C, and must make a Piloting Skill Roll to avoid falling. The BattleMech in Hex C, however, can try to avoid the domino effect by moving. First, the player must make a Piloting Skill Roll. If the roll fails, the 'Mech will fall into Hex D, and if another 'Mech occupied that hex, the domino effect would continue. However, if the roll is successful, and the 'Mech has at least 1 MP left from the previous Movement Phase, it may move one hex directly backward, into Hex E, ending the domino effect. If the BattleMech had 3 or more MP left, it could choose to move forward into the heavy woods in Hex F.

HEAT

One of the most severe problems facing any BattleMech in combat is internal heat build-up. Though every BattleMech can dissipate heat through its heat sinks or by standing in water, the BattleMech builds up heat whenever it moves or fires its weapons.

Even when using both dissipation methods to cool its systems, a high rate of activity commonly produces more heat than a BattleMech can dissipate. It is possible for a BattleMech to overheat and continue to function, but a pilot who pushes his BattleMech past its limits eventually must pay the price. As a BattleMech's internal heat increases, it moves more slowly and its weapons fire becomes less accurate. If its internal heat reaches a certain level, the ammunition that it carries may explode. The BattleMech's fusion reactor may even shut down, causing the BattleMech to become inactive and immobile until the heat drops below a certain point.

Vehicles do not generate heat in the same manner as BattleMechs. A vehicle only needs to be designed with enough heat sinks to fire all of its energy weapons at once. Because of its more open (and flimsier) structure, a vehicle can automatically shed heat built up from movement or from firing non-energy weapons.

HEAT POINTS

Players track the internal heat of a BattleMech by the number of Heat Points (HP) it builds up. The greater the number of Heat Points, the greater the internal heat. The player keeps track of his BattleMech's Heat Points using the column of boxes on its record sheet labeled Heat Scale. The Heat Scale records heat levels from 0 to 30 Heat Points. As the BattleMech's internal heat reaches various levels on the Heat Scale, the BattleMech will suffer the adverse effects listed at those levels on the scale.

Building Up Heat

Different activities build up heat at different rates. A good MechWarrior balances the tactical value of an activity against

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HEAT POINT TABLE

Activity	Heat Points
Walking	+1 per turn
Running	+2 per turn
Jumping	+1 per hex (minimum of 3 per turn)
Trying to Stand	+1 per attempt
Weapons Fire	Per Weapons and Equipment Tables, p. 104
Heat Sink	−1 per operational heat sink
	−2 per operational double heat sink
	−1 additional per heat sink under water (6 HP maximum)
	−2 additional per double heat sink under water (6 HP maximum)
First Engine Hit	+5 per turn
Second Engine Hit	+10 (total) per turn
Fire	
Walking through	+2 per hex
Standing in	+5 per turn

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the heat it will add to his BattleMech. The Heat Point Table indicates the number of Heat Points generated by various activities and damage. It also shows the number of Heat Points that a BattleMech can dissipate through its heat sinks and by standing in a Water hex. Note that there are two types of heat sinks available: standard heat sinks that dissipate 1 point of heat per turn, and double heat sinks that dissipate 2 points of heat per turn.

Note that jumping uses more heat than walking or running, even if the BattleMech moves only 1 hex, because firing the jump jets adds a minimum of 3 Heat Points. The Heat Point cost for jumping depends on the length of the jump. The farther the jump, the longer the jump jets are used and the more heat they generate. To determine the number of Heat Points generated by jumping, count the hexes moved. If the 'Mech jumps 3 or fewer hexes, the Heat Point cost is 3 points. If the number of hexes moved is 4 or more, the Heat Points generated equals the number of hexes jumped.

A MechWarrior may actually wish to build up heat in some situations, particularly if his BattleMech is equipped with triple-strength myomer. Building up heat is most easily accomplished by shutting off as many heat sinks as desired during the End Phase of any turn; heat sinks shut off this way dissipate no heat, and they may only be switched back on during a subsequent End Phase.

Recording Heat Build-Up

During the Heat Phase of every turn, each player adds up the Heat Points built up by his BattleMech. He subtracts the heat dissipated by his BattleMech's heat sinks and any additional dissipation if his BattleMech occupies a Water hex. The result may be positive or negative. Add this number to the current level of heat shown on the Heat Scale on the BattleMech's record sheet. If the number is negative, adjust the Heat Scale downward; if the result is positive, adjust the Heat Scale upward. The level of heat shown on the Heat Scale cannot drop below 0 or rise above 30.

We suggest that players mark the Heat Scale with a pencil, because the heat will rise and fall many times during the game.

EFFECTS OF HEAT

The effects of excessive heat cause the BattleMech to function less efficiently. It will move more slowly, fire less accurately, and possibly shut down or even explode. Some of these effects are permanent, but others are negated when the 'Mech cools.

The BattleMech suffers the effects listed below after the heat for the turn has been adjusted as described in **Recording Heat Build-up**.

Movement Effects

At 5, 10, 15, 20, and 25 Heat Points, subtract the number indicated from the BattleMech's Walking MP. For example, at 5 Heat Points, subtract 1 from the BattleMech's Walking MP as long as the heat is at or above 5. Remember that Running MP are 1.5 times the current Walking MP; if the Walking MP are reduced, the BattleMech's Running MP must also be recalculated, rounding fractions up.

This effect is not cumulative with any previous heat-caused MP loss. When a BattleMech's heat build-up reaches 5 on the Heat Scale, its Walking MP are reduced by 1. When the build-up reaches 10 on the Heat Scale, its Walking MP are reduced by 2 total, not 2 more.

When the heat build-up is reduced below the point at which the effect occurs, the BattleMech regains 1 Walking MP, though previous losses remain in force. Thus, if the heat falls below 10 on the Heat Scale, the –2 MP effect is removed, but the –1 MP effect is still in force until the heat drops below 5.

Note that a BattleMech's Jumping MP are not affected by the reduction in Walking MP due to heat build-up.

Weapon Attack Effects

At 8, 13, 17, and 24 Heat Points, add the number indicated to the BattleMech's base to-hit number for weapons attacks. For example, at 8 Heat Points, add 1 to all base to-hit numbers while the heat is at or above 8. Treat these effects like movement effects: they are not cumulative and may be negated by reducing the heat build-up.

Shutdown Effects

At 14, 18, 22, 26, and 30 Heat Points, a BattleMech shuts down its fusion reactor automatically as a safety procedure. Until the MechWarrior restarts the reactor, the BattleMech may not move or fire.

This effect may be avoided if the MechWarrior is able to override the fusion reactor's safety shutdown procedure, as indicated by the Avoid number listed with the effect (shutdown cannot be avoided at 30 Heat Points). The player rolls 2D6. If the result is equal to or greater than the Avoid number (4+, 6+, and so on), the pilot avoids shutdown until the heat rises to that level again. If the heat rises to another trigger level, or falls and rises to the same trigger level, the player must roll 2D6 to avoid the effect again. If heat accumulation reaches 2 trigger levels in one turn, roll 2D6 only once, against the highest Avoid number.

If the BattleMech shuts down, it remains motionless and cannot build up any heat by its own actions. Its heat sinks will still work, however, and so will continue to dissipate the excess heat. For every turn that the overheated 'Mech remains motionless, the heat level will drop, and the player may attempt to restart the reactor during each Heat Phase. To do this, the player rolls 2D6. If the result is equal to or greater than the highest current Avoid number, he can restart the reactor. A BattleMech may move and fire in the turn following the turn in which the reactor was restarted. When the heat drops below 14 on the Heat Scale, the reactor restarts automatically, even if the pilot is out of action.

A shutdown BattleMech offers a target for aimed shots (p. 28).

Ammunition Effects

If the heat level reaches or exceeds an Ammo Explosion threshold of 19, 23, and 28 Heat Points, the ammunition carried in the BattleMech might explode. The explosion may be avoided by pure luck, as indicated by the Avoid number. To see if the

'Mech avoids an explosion when the heat level reaches an Ammo Explosion threshold, the player rolls 2D6. If the result is equal to or greater than the indicated Avoid number, the ammo remains intact.

When a BattleMech's ammo explodes due to overheating, the ammunition with the most destructive ammo rack explodes first. An ammo rack is defined as the damage that one turn's worth of shots will do. Thus, a rack of machine gun ammo has a Damage Value of 2, an AC/10's Damage Value is 10, an LRM-15 has a Damage Value of 15, and an SRM-6 has a Damage Value of 12. When the 'Mech carries two racks with equivalent Damage Values, the BattleMech's pilot chooses which ammo explodes. All of the appropriate ammo type in a single critical hit location explodes. If there is more than one critical hit location with the appropriate ammo type, the one with the most shots remaining will explode. If there are two or more locations with an equal number of shots remaining, determine randomly the one that explodes.

Ammunition explodes with a Damage Value equal to the ammo's Damage Value times the shots remaining. Missile ammo explodes with a force equal to the number of missiles remaining multiplied by their Damage Value. Thus, one ton of AC/10 ammo explodes with a force of 100. A full ton of LRM-20s explodes with a force of 120 (20 x 6 x 1). All damage from exploding ammo strikes the internal structure. Excess damage is transferred to the internal structure of the next section per the Damage Transfer Diagram.

An ammo explosion always causes 2 points of damage to the MechWarrior from feedback through his neurohelmet.

MechWarrior Effects

If the life-support systems suffer a critical hit, the MechWarrior suffers 1 point of damage for every turn that the BattleMech's internal heat reaches 15 or more. For every turn that the heat rises higher than 25, the MechWarrior suffers 2 points of damage.

A Warhammer begins a turn with a Heat Scale reading of 4. During the turn, it fires both its PPCs and walks (generating a total of 21 Heat Points). The BattleMech still has 16 standard heat sinks working. They dissipate 16 of the 21 Heat Points, leaving 5 to build up. During the Heat Phase, these 5 points are added to the 4 already on the Heat Scale, bringing the total to 9. In the next turn, the BattleMech must reduce its Walking MP by 1 and add +1 to its to-hit number for weapons attacks.

If the BattleMech repeats these actions in the next turn, the player must add 5 more Heat Points to the Heat Scale, bringing the total to 14. The player must roll a 4 or higher on 2D6 to avoid having his BattleMech's fusion reactor shut down. Even if he avoids the shutdown, he must reduce the Warhammer's Walking MP by 1 more, for a total of 2, until its heat falls below 10 on the Heat Scale. At the same time, the 'Mech fires its weapons with a +2 to-hit modifier.

BUILDINGS

BattleMechs evolved out of the need for a highly mobile weapons platform that could be dropped from space, perform extended operations with a minimum of supplies, and carry enough firepower to win the planned objective. This machine as designed can perform all these missions easily, especially when moving through Clear terrain.

Historically, cities and urban areas made it difficult for armored vehicles to successfully perform their objectives, and cities still cause problems for BattleMechs. Battles fought in long, narrow streets filled with buildings that block line of sight, provide enemy hiding places, and offer limited protection from weapons fire required a change in tactics and operations. In urban combat, even unarmored infantry may substantially damage a BattleMech.

BUILDING TYPES

The urban combat of **CityTech** uses four types of buildings: Light, Medium, Heavy, and Hardened. Each type is rated to describe the damage it can withstand, the protection it provides, and the weight it can bear. Two numbers describe buildings in **CityTech**: the Construction Factor (CF) and Elevation.

Treat building elevation exactly like other terrain elevation for both line of sight and movement, with each level of a building being about 6 meters high.

The Construction Factor (CF) is used to determine how the physical structure of the building affects the play of the game. The CF is the number of points of damage that a building can take before being reduced to rubble. It is also the number of tons of additional weight a building can support without collapsing. Regardless of a building's current Construction Factor, its type never changes. A damaged Heavy Building with a current CF of 15 is still a Heavy Building.

If the scenario does not specify a building's CF, assume that a Light Building has CF 15, a Medium Building has CF 40, a Heavy Building has CF 90, and a Hardened Building has CF 120. These values represent the maximum CF for Light, Medium, and Heavy Buildings. The maximum CF for a Hardened Building is 150.

Building counters are used to represent buildings on the mapsheet. Counters provided by FASA show a picture of the intact building on one side, labeled according to its type and elevation. The other side represents rubble. Whatever players choose to use as counters, those pieces should contain the same information as provided on FASA counters. In the case of building counters that cover more than a single hex, the CF of the building represents the whole counter, not its individual hexes.

MOVEMENT EFFECTS

BattleMechs can move into or onto buildings. Ground vehicles cannot move onto the top of a building. If the current CF of a building is equal to or greater than the tonnage of a BattleMech, then that BattleMech can jump to the top of the building or climb up to the top of buildings of Levels 1 or 2 (in this case, treat buildings as hills for purposes of movement). If the current CF is less than the BattleMech's tonnage, the building will collapse and the BattleMech will fall a distance equal to the elevation level of the building, taking falling damage.

The Building Modifiers Table summarizes movement costs and modifiers for each type of building.

Every time a BattleMech or vehicle moves into a building (by entering a Building hex), it passes through a wall, and the MechWarrior or driver must make a Piloting Skill Roll adding all appropriate modifiers from the Piloting Skill Roll Table, p. 19. In addition, modify the Piloting Skill Roll for the unit's movement per the Building Movement Modifiers Table. If the Piloting Skill Roll is successful, the unit takes no damage. If the roll is unsuccessful, the BattleMech or vehicle takes damage on the Front side equal to the building's current CF divided by 10 (round up). Note that the BattleMech does not fall. The player must also make a Piloting Skill Roll when the 'Mech leaves a building and when moving from hex to hex inside a single building.

In addition, whenever a BattleMech or vehicle moves through a building wall (by moving from or into a Building hex), the building suffers damage equal to the unit's tonnage divided by 10 (rounded up).

BUILDING MODIFIERS TABLE

Building Type	Original CF	MP Cost	PilotingSkill Modifier
Light	1–15	2	0
Medium	16–40	3	+1
Heavy	41–90	4	+2
Hardened	91–150	5	+5

BUILDING MOVEMENT MODIFIERS TABLE

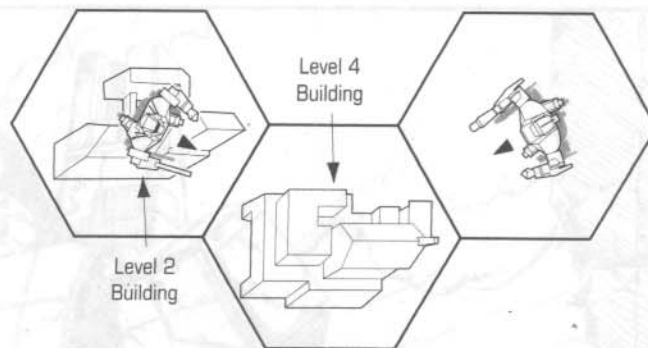| Hexes Moved in Turn	Piloting Skill Modifier
1–2	0
3–4	+1
5–6	+2
7–9	+3
10+	+4

A MechWarrior with a Piloting Skill level of 5 piloting a 70-ton Archer wants to move through a Medium Building to fire at units on the other side. The Archer runs 1 hex to reach the hex adjacent to the building, then spends 3 MP to enter the hex containing the building. As the 'Mech passes through one wall, the player must make a Piloting Skill Roll, modified by +1 because this is a Medium Building. As shown on the Building Movement Modifiers Table, the player need not add a modifier for its unit's movement because the Archer only moved 2 hexes. The Archer's player rolls 2D6 with a result of 10, which is a success. The BattleMech suffers no damage, but the building takes 7 points of damage (the Archer's 70 tons divided by 10). The Archer must make a second Piloting Skill Roll in order to leave the Building hex. The player must add a Building Movement Modifier of +1 this time, because this is the 'Mech's third hex of movement. The die roll result is 3, less than the 7 needed to pass through the wall without taking damage. The Archer suffers 4 points of damage to its Front side (the current CF of 33, divided by 10, rounded up), and the building suffers a further 7 points of damage, reducing the current CF to 26. The Archer spends its remaining 1 MP to move to Hex C.

Ground vehicles can only enter or exit the ground level of a building. If a building is Level 2 or less, or if a BattleMech has a Jumping capability at least equal to the height of the building, then the BattleMech may land on or otherwise reach the building's roof through normal expenditure of MP (see **Movement**, p. 15). Likewise, jump infantry and battle armor may move to the roof of any building that is Level 3 or less using normal expenditure of MP.

A BattleMech or infantry unit may enter a building at an elevation higher than ground level only if it enters the building from an adjacent hex with an elevation equivalent to the building level being entered. It costs infantry 1 MP to enter a building and 1 MP to change levels within a building.

Normal stacking limitations are in effect at each level in a building. Interior floors of a building sustain the same weight as its roof.

A Stinger is adjacent to the Level 4 building in Hex A. The Stinger may attempt to enter the building at ground level or it may jump up to the roof. The Wasp on the roof of the adjacent Level 2 building may jump or climb to the roof of the building in Hex A, or it may enter the building on its second level.

COMBAT EFFECTS

Combat in and around buildings may cause damage to the buildings and to the units inside buildings.

DAMAGE TO BUILDINGS

When a building suffers damage, simply subtract the points of damage from the building's current CF and write the resulting number in pencil on the back side of the counter. When the cumulative damage equals or exceeds the building's CF, flip the counter over to the rubble side. The building is now rubble for the rest of the game.
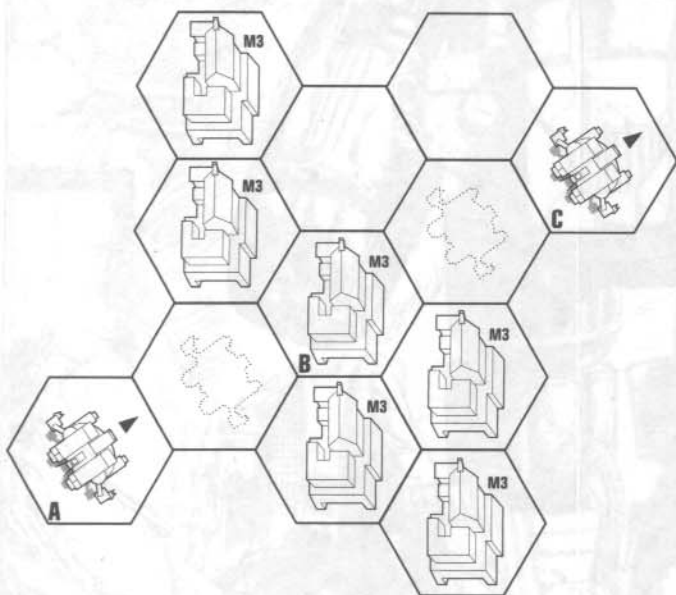
For every point of damage that a Building hex takes as a result of combat, fire, or movement, the building loses 1 CF. When the CF of a building is reduced to 0, all the hexes it occupies are reduced to rubble.

Units firing directly at a building add a −4 to-hit modifier for firing at immobile targets. Shots aimed at buildings from adjacent hexes always hit, as do all physical attacks. All missiles launched from an adjacent hex will strike the target; the player need not roll on the Missile Hits Table.

DAMAGE TO UNITS INSIDE

A unit firing at a BattleMech or vehicle that is inside a building does not modify the to-hit number to represent this situation, but the building provides some protection against damage to those units inside. The building absorbs an amount of damage equal to its current Construction Factor divided by 10 (round up) before any damage actually hits the BattleMech or vehicle. The building absorbs the same amount of damage from each attacker (though not from each separate weapon). For example, if five BattleMechs are firing on a target in the same building, the building would absorb the same amount of damage from each 'Mech attack before any damage affected the target. The building takes damage (reduces its CF) only after all weapons fire is complete.

All shots that were aimed at a target inside a building and miss do full damage to the building instead.
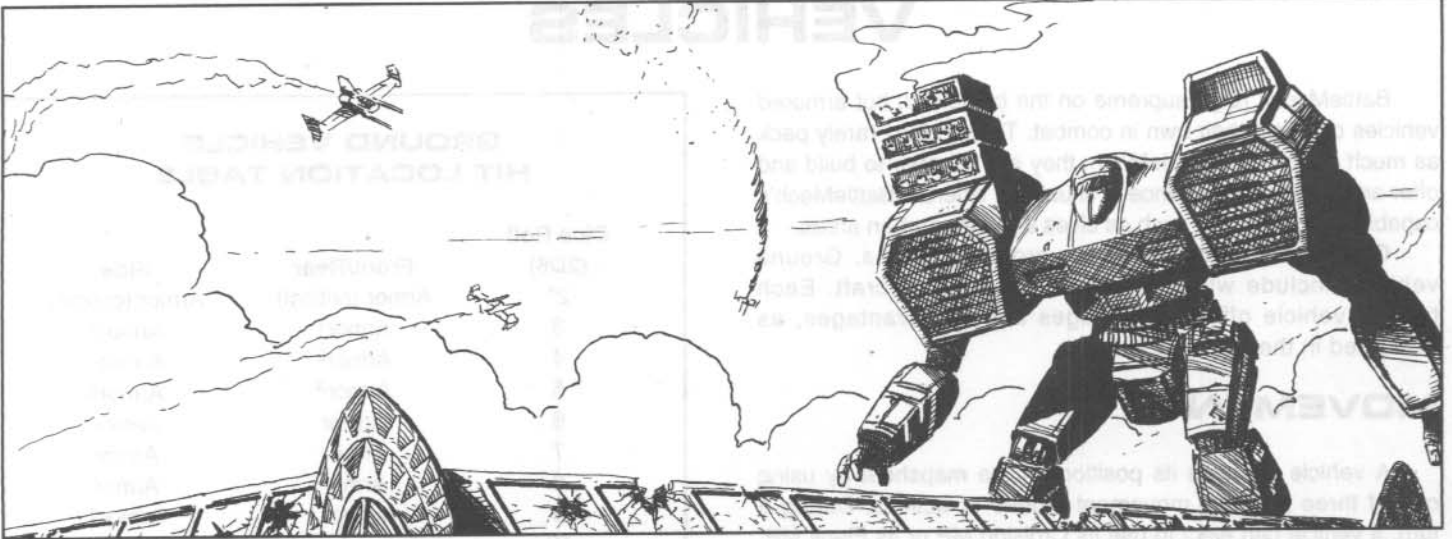
A Marauder *and a* Rifleman *each make a successful attack against a* Hunchback *that is inside a Heavy Building, each inflicting 10 points of damage. The building has a current CF of 82. The* Rifleman*'s damage to the* Hunchback *is reduced by 9 points because of the protection of the building (82 ÷ 10, rounded up). The* Marauder*'s damage to the* Hunchback *is also reduced by 9. The building's new CF will be 64 (82 – 9 – 9 = 64).*

Infantry

Units that fire weapons at infantry inside a building must do so according to the following special rules. When the attacking unit is outside or on a different level within the same building, the fire must be directed at the building itself, and then any damage also affects the infantry. For details, see **Infantry**, p. 45. If the attacking unit is inside the building and on the same level, use the normal weapon- and physical-attack rules, but do not modify the to-hit number for the terrain. Do not add a level to a BattleMech's height when it is inside a building. If it is on the second floor of the building, it can fire directly at infantry on the second floor, but only indirectly at infantry on the third floor.

If a building takes more damage than its current CF, any unit inside suffers damage as the building collapses equal to the building's CF at the beginning of the current phase divided by 10, multiplied by the number of levels of building above the affected unit (round up). Infantry units suffer 3 times the normal damage caused by a collapsing building, split up into 5-point clusters in the same way as LRM attacks when applied to battle armor units.

A BattleMech occupying an upper floor or the roof of a collapsing building also suffers standard falling damage in addition to the damage caused by the collapse (see above), according to the number of levels fallen. Units on top of a collapsing building suffer damage as though they were on the highest level inside it.

It is possible for many units to occupy the same hex if they are on different levels of the same building. When units on dif-

ferent levels inside a building fire at each other, use the standard to-hit procedures, with the following modifications. The difference in levels is the range. If the building occupies more than 1 hex, and the target is not in the same hex as the unit firing but still in the building, then include the horizontal distance when determining range. Finally, add a +3 to-hit modifier for partial concealment. Do not use minimum range modifiers in this case. If a shot from a different level hits a BattleMech, roll 1D6 and consult the appropriate section of the Special Hit Location Table. If a shot hits a vehicle, consult that vehicle's Hit Location Table. Note that the shot hits a randomly determined side of the vehicle. Remember that the building protects all units from a certain amount of damage.

SPECIAL HIT LOCATION TABLE

Shot from Above

Die Roll (1D6)	Hit Location
1	Left Arm
2	Front/Rear Left Torso*
3	Front/Rear Center Torso*
4	Front/Rear Right Torso*
5	Right Arm
6	Head

Shot from Below

Die Roll (1D6)	Hit Location
1	Left Leg
2	Left Leg
3	Front/Rear Left Torso*
4	Front/Rear Right Torso*
5	Right Leg
6	Right Leg

*The attack hits the Front if from the front or the side. It hits the Rear if from the rear.

VEHICLES

BattleMechs reign supreme on the battlefield, but armored vehicles can hold their own in combat. Though they rarely pack as much punch as a BattleMech, they are cheaper to build and offer an even fighting chance in situations where a BattleMech's capabilities are limited, such as cities and other urban areas.

CityTech provides rules for ground vehicles. Ground vehicles include wheeled, tracked, and hovercraft. Each type of vehicle offers advantages and disadvantages, as described in the following rules.

MOVEMENT

A vehicle changes its position on the mapsheet by using one of three possible movement modes or actions. During a turn, a vehicle can elect to use its Cruising MP or its Flank MP, or to Stand Still. These movement modes correspond to a BattleMech's Walking, Running, and Standing Still modes. A vehicle can use only one movement mode per turn.

Vehicles may combine backward and forward movement in a turn only if they are moving at cruising speed.

GROUND VEHICLE MOVEMENT

Ground vehicles are restricted from certain types of terrain. See the Movement Cost Table in **Movement**, p. 14, for a list of restricted terrain.

Ground vehicles can change elevation levels at a cost of 2 MP per level. A ground vehicle may only change 1 level per hex traveled, and cannot change levels within buildings.

A ground vehicle's turret (if it has one) can be turned to face any hexside during the Reaction Phase.

Hovercraft moving over water may only move through Depth 1 or deeper Water hexes, at a cost of 1 MP per hex entered, regardless of depth. For line of sight purposes, a hovercraft is at Level 0 (on the surface of the water).

COMBAT

Vehicles use the BattleMech rules for firing arcs, multiple targets, and to-hit modifiers.

Vehicles take hits to only 6 locations. The diagram shows the Front, Side, and Rear damage locations for all vehicles.

When a vehicle takes a hit, roll 2D6 and consult the Hit Location Table for that type of vehicle to determine the component that took damage. Other results may also apply, as noted on the table.

A vehicle can be destroyed by a critical hit result or by losing all internal structure boxes in any one location. Vehicles take damage in the same way as BattleMechs—first against armor and then against internal structure.

GROUND VEHICLE HIT LOCATION TABLE

Dice Roll (2D6)	Front/Rear	Side
2*	Armor (critical)	Armor (critical)
3	Armor[1]	Armor[1]
4	Armor[2]	Armor[2]
5	Armor[3]	Armor[2]
6	Armor	Armor
7	Armor	Armor
8	Armor	Armor
9	Armor	Armor[3]
10	Turret Armor	Turret Armor
11	Turret Armor[4]	Turret Armor[4]
12*	Turret Armor (critical)	Armor (critical)

[1] A track, axle, or lift fan has been destroyed; the unit cannot move for the rest of the game. If a hovercraft suffers this hit while over water, it sinks and is destroyed.

[2] A drive, wheel, or airskirt has been damaged; −1 Cruising MP for the rest of the game.

[3] If the vehicle is a hovercraft, an airskirt has been damaged; −1 Cruising MP for the rest of the game. If not a hovercraft, no additional effect.

[4] The turret locks in its current position and cannot be moved for the rest of the game; it can only fire out of its current arc. If there is no turret, no additional effect.

Note: If there is no turret, then all turret hits become normal armor hits.

*A result of 2 or 12 may inflict a critical hit. Apply damage to the armor in that section in the normal manner, but the attacking player also rolls once on the Determining Critical Hits Table, p. 29.

GROUND VEHICLE CRITICAL HITS TABLE

Die Roll (1D6)	Result
1	Crew stunned (No actions for next 2 turns)
2	Main weapon jams (No fire from largest system for 1 turn)
3	Engine hit (No movement for rest of game)
4	Crew killed (Vehicle out of game)
5	Fuel tank hit (Vehicle explodes)
6	Ammo/power plant hit (Vehicle explodes)

INFANTRY

While BattleMechs and vehicles can be expensive to manufacture and maintain, there is almost no limit to the number of men who can be thrown, willing or unwilling, into battle. Infantry units rarely last long against BattleMechs, but they can sometimes inflict enough damage to turn the tide of battle.

CityTech provides rules for four types of infantry: foot, motorized, jump infantry, and battle armor infantry. Foot and motorized units consist of 28-man platoons. Jump units consist of 21-man platoons. Battle armor units consist of 5-man Points equipped with powered combat suits.

Standard infantry units can be armed with one of five weapons: rifles, machine guns, flamers, portable lasers, or short-range missiles.

All members of a battle armor Point carry an SRM-2 launcher on their backs. The launcher holds four missiles, enough for two salvos of two missiles each. In addition, members of a Point also carry one anti-BattleMech weapon system, either a regular small laser, a flamer, or a machine gun. All personnel in a Point must carry the same type of anti-BattleMech weapon system because they fire as a combined unit in battle.

The Infantry Units Table illustrates the types of available units, their Movement Points, the number of men in a full-strength unit of each type, and the maximum amount of damage an undamaged unit can inflict on a target.

Before beginning the game, the players should fill out the appropriate record sheet for each unit, indicating the unit's type, weapons, and other statistics. Use this record sheet to keep track of the status of each unit during the game.

MOVEMENT

Infantry have no facing and can move in any direction unless blocked by terrain. In general, infantry must pay the same Movement Point costs as other units. However, infantry expend only 1 MP to enter or leave buildings, and may climb up interior stairs of buildings to reach different levels at a cost of 1 MP per level.

Infantry may not move into Depth 1 or deeper water and may only climb 1 elevation level per hex. Jump infantry and battle armor move per the jumping rules for BattleMechs (see **Movement**, p. 15).

An infantry platoon counts as one unit for stacking purposes.

INFANTRY CARRIERS

Infantry may ride inside a vehicle during the course of a game. Any vehicle equipped with cargo space may carry infantry. The carrying unit's capacity is limited to the tonnage of its cargo space. Battle armor Points occupy 1 ton of cargo space. A foot infantry platoon occupies 3 tons of cargo space. A jump infantry platoon occupies 4 tons of cargo space. A motorized infantry platoon occupies 6 tons of cargo space. Do not reduce these tonnages for units that have suffered casualties.

INFANTRY UNITS TABLE

Type	MP	Number of Men	Maximum Damage
Foot Infantry			
Rifles	1	28	7
Machine Guns	1	28	10
Flamers	1	28	10
Portable Lasers	1	28	14
SRMs	1	28	14
Motorized Infantry			
Rifles	3	28	7
Machine Guns	3	28	10
Flamers	3	28	10
Portable Lasers	2	28	14
SRMs	2	28	14
Jump Infantry			
Rifles	3	21	6
Machine Guns	3	21	7
Flamers	3	21	7
Portable Lasers	2	21	11
SRMs	2	21	11
Battle Armor	3	5	See **Combat**, p. 46

To mount a vehicle during a turn, an infantry unit must start its Movement Phase in the same hex as the vehicle. A platoon may dismount a vehicle only at the end of that vehicle's Movement Phase. A vehicle must spend 1 MP to mount or dismount a platoon. If infantry dismount in the current turn, they may not move or engage in combat in that turn.

A mounted infantry unit does not count toward stacking limits, but a dismounted infantry unit does count toward stacking limits.

Mounted infantry may not fire weapons. If the vehicle carrying infantry explodes during combat, all infantry units mounted in the vehicle are also destroyed. If a vehicle suffers a Crew Killed critical hit result, all infantry mounted in the vehicle are killed. If a vehicle suffers a Crew Stunned result, all infantry mounted in the vehicle are stunned and cannot act or move from the vehicle until the vehicle's crew has recovered. Infantry mounted in vehicles that are destroyed without exploding may move and fire normally in the turn after the vehicle was destroyed.

MECHANIZED BATTLE ARMOR

Clan battle armor units (made up of Elementals) train to work closely with OmniMechs in combat. Each OmniMech torso features handholds that allow up to 5 battle armor infantrymen to attach themselves to the OmniMech for transport. A Point can mount an OmniMech using the standard rules for mounting

and dismounting from conventional vehicles (see **Infantry Carriers,** p. 45). The OmniMech cannot use any torso-mounted weapons when carrying infantry. Infantry takes damage first from all hits on any of the OmniMech's torso locations except the Front Center torso. A randomly chosen trooper takes maximum damage before the OmniMech takes damage from successful attacks. Only one trooper takes damage from any single hit intended for the OmniMech; damage in excess of that required to kill the trooper transfers to the OmniMech.

COMBAT

Rules for infantry combat are divided into two main categories: standard infantry combat (foot, motorized, or jump), and battle armor combat.

Note that infantry may fire at units occupying the same hex. All damage from such attacks hits the Front side of the target.

STANDARD INFANTRY ATTACKS

Use the BattleMech rules for infantry-weapons fire and to-hit procedures, with the following modifications. Infantry have a 360-degree arc of fire, and their weapons have a limited range. Infantry units do not have Gunnery Skill levels or use range modifiers. See the Infantry Base To-Hit Table, below, for the to-hit numbers of standard infantry weapons by range.

INFANTRY BASE TO-HIT TABLE

Weapon Type	To-Hit Number (Range in Hexes)						
	0	1	2	3	4	5	6
Rifle	2	4	6	—	—	—	—
MG	2	4	6	8	—	—	—
Flamer	3	4	6	—	—	—	—
Laser	2	4	6	8	—	—	—
SRM	3	4	4	6	6	8	8

To calculate infantry to-hit numbers, use the BattleMech rules for line of sight, target movement, and terrain modifiers. However, infantry is not subject to the modifiers for attacker movement.

The amount of damage that a standard infantry platoon can inflict is based on its current number of men and the type of weapons with which it is armed. Consult the Infantry Record Sheet to determine how much damage each type and strength of unit can inflict. For example, a full-strength rifle platoon inflicts 7 points of damage each time it successfully attacks, while an 11-man laser platoon does 6.

Group standard infantry damage to targets into 5-point clusters and apply in the same fashion as LRM damage.

DAMAGE TO STANDARD INFANTRY

Standard infantry platoons take damage in the same manner as 'Mechs; attackers fire on infantry as normal units using appropriate modifiers, and infantry units take damage equal to the Damage Value of the weapon. As damage is taken, mark off the boxes indicating troopers on the platoon's record sheet, left to right, one for each Damage Point inflicted.

Unarmored infantry hit while in Clear terrain (no terrain modifiers for their hex) suffer twice the normal damage, even if mounted on another unit.

When a standard infantry platoon takes a hit from a vehicular or BattleMech-mounted machine gun, roll 2D6. The result is the damage inflicted on the infantry platoon. Double this damage if the infantry platoon is in Clear terrain.

Machine gun-equipped battle armor units that fire on an unarmored infantry platoon should roll 1D6 for each successful hit according to the Battle Armor Direct Fire Table. Add the die roll result for each hit to create a running total. This total is the damage inflicted on the unit. Double this damage if the infantry platoon is in Clear terrain.

Infantry in Buildings

Because buildings block line of sight, units outside a building cannot fire directly at infantry (standard or battle armor) inside a building and must fire at the building instead. Damage done to buildings affects the infantry units inside according to the Infantry Damage in Buildings Table.

Use this table only when damage is intentionally inflicted on the building from a weapon or physical attack, or from a BattleMech or vehicle moving into or out of a building containing infantry. For damage to battle-armored troops inside a building, group the damage into 5-point clusters and roll 1D6 for each cluster to determine hit location (see Damage to Battle Armor).

INFANTRY DAMAGE IN BUILDINGS TABLE

Building Type	Damage to Infantry Is:
Light	75% of damage to building
Medium	50% of damage to building
Heavy	25% of damage to building
Hardened	None

If a BattleMech is adjacent to an infantry unit occupying a building, all attacks, weapons fire, and physical attacks must be directed against the building rather than the unit itself. If the BattleMech is inside a building and in the same hex as an infantry unit, it may make a weapon attack against that unit, or fire at the building, or make a direct physical attack against the unit.

An Archer *wishes to attack an infantry unit hiding in a Medium Building, and so the 'Mech must attack the building rather than the infantry. The* Archer *inflicts 20 points of damage*

on the building, reducing its CF by 20. Ten points of damage (50 percent of damage to building) affect the infantry unit inside.

BATTLE ARMOR ATTACKS

When a Point of battle armor attacks, it fires as a single unit. In any combat round, the Point may fire twice, once with SRMs and once with its second weapon (small laser, flamer, or machine gun). These attacks use all range and line-of-sight restrictions appropriate for the weapon. Note that battle armor small lasers are considered to be standard Inner Sphere models, not ER or pulse lasers. All attacks against units in the same hex as the battle armor unit are considered to be at a Range of 1. Battle armor units have a 360-degree arc of fire.

All battle armor attacks have a Base To-Hit Number of 4. Calculate the modified to-hit number using the standard rules, modifying the number for defender movement, terrain, and all other appropriate modifiers. As with standard infantry, battle armor need not modify the to-hit number for attacker movement.

If a battle armor unit makes a successful SRM attack, roll 2D6 and consult the Battle Armor Missiles Table to determine the number of missiles that hit. Each hit inflicts 2 points of damage on the target. Determine a separate hit location for each missile.

BATTLE ARMOR MISSILES TABLE

Dice Roll (2D6)	Point Members Active (Number of Missiles Fired)				
	1 (2)	2 (4)	3 (6)	4 (8)	5 (10)
2	1	1	2	2	3
3	1	2	2	3	3
4	1	2	3	3	4
5	1	2	3	4	6
6	1	2	4	4	6
7	1	3	4	5	6
8	2	3	4	5	6
9	2	3	5	6	8
10	2	3	5	7	8
11	2	4	6	8	10
12	2	4	6	8	10

When an anti-BattleMech small laser, flamer, or machine gun attack hits its target, roll 2D6 and consult the Battle Armor Direct Fire Table to determine the number of troopers in the Point who scored a hit. Each trooper who hits inflicts normal damage for the weapon. Determine a hit location separately for each hit.

If the attacker uses a machine gun against a standard infantry platoon, determine the amount of damage by rolling 1D6 for each hit and adding the results in a running total.

Note that battle armor-equipped units are highly trained, elite troops and are automatically capable of delivering anti-BattleMech attacks as described in **Anti-BattleMech Infantry**, p. 48 in **Special Case Rules**.

BATTLE ARMOR DIRECT FIRE TABLE

Dice Roll (2D6)	Point Members Active				
	1	2	3	4	5
2	1	1	1	1	1
3	1	1	1	2	2
4	1	1	2	2	2
5	1	1	2	2	3
6	1	1	2	2	3
7	1	2	2	3	3
8	1	2	2	3	4
9	1	2	3	3	4
10	1	2	3	4	4
11	1	2	3	4	5
12	1	2	3	4	5

DAMAGE TO BATTLE ARMOR

When a unit attacks a Point of battle armor, the attack strikes the Point as a whole. Use all standard modifiers. In addition, BattleMechs and vehicles must modify their to-hit numbers for battle armor attacks by +1 to account for the spread-out formation and tactics of battle armor units.

On a successful attack against battle armor, roll 1D6, rerolling a 6. The result indicates which one of the troopers takes damage from the hit, rerolling hits on destroyed troopers. Treat long-range missile fire against battle armor as for BattleMechs; each five missiles that hit the unit strike a different, randomly selected trooper. Each weapon, SRM, or cluster of LRMs will only damage the trooper struck; excess damage is wasted.

Each suit of battle armor has an Armor Value of 10 points, plus an additional point of damage that represents the Elemental trooper inside. To inflict damage on the trooper, treat the 11th point of damage as "armor" occupying a single "location." If all 11 points of armor are destroyed, the trooper inside the battle armor is out of action.

INNER SPHERE BATTLE SUITS

The Clans developed their battle armor in the middle of the 29th century, and they immediately began using selective breeding techniques to develop a caste of Elemental pilots with the size, strength, and agility to make the most effective use of battle armor. The Successor States have begun fielding their own versions of these suits, but Inner Sphere infantry lack the physical development to use them as effectively as their Clan opponents. To reflect this fundamental inequity, each Inner Sphere battle-suited unit begins the game with only 9 points of armor, plus one additional point that represents the trooper inside. Inner Sphere battle suits do not carry the heavy SRM launchers, and are armed with only one anti-BattleMech weapon. In addition, Inner Sphere battle-suit units rarely organize into Points, and may contain anywhere from one to five soldiers at the start of battle.

SPECIAL CASE RULES
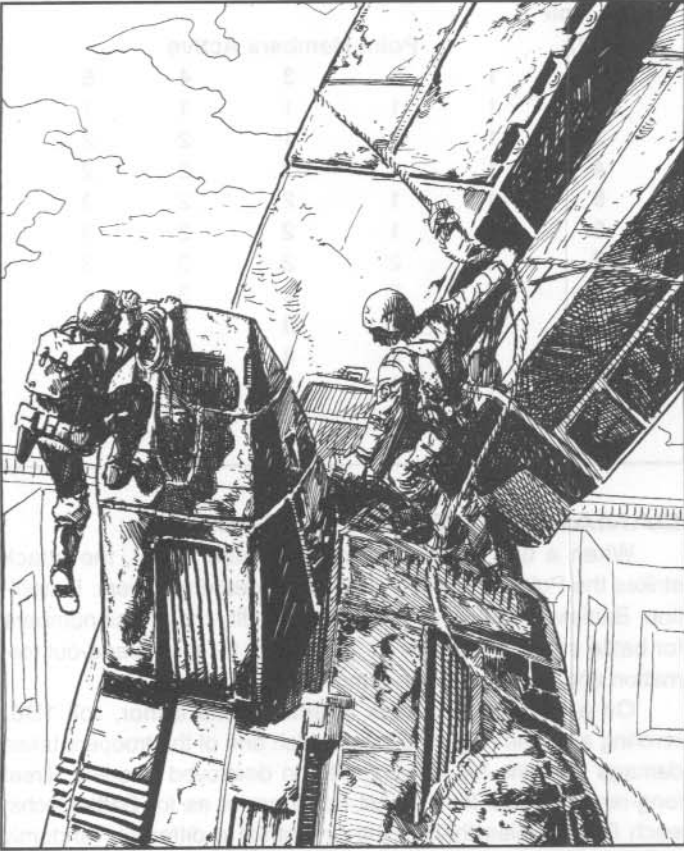
The **Special Case Rules** section offers detailed rules to resolve specific, strategically important situations that players may want to play out as part of their game. The following is only a brief selection of rules for use with **CityTech.** Many more special case rules can be found in the **BattleTech Compendium: The Rules of Warfare.**

All players should review the special-case rules and agree on those to be included in their game before beginning play.

ANTI-BATTLEMECH INFANTRY

Infantry trained in anti-BattleMech tactics learn to close with a BattleMech, climb it, and plant satchel charges in strategic, vulnerable locations. This dangerous tactic requires highly skilled and dedicated troops, but if successful, it can turn the tide of battle quickly.

Resolve anti-BattleMech attacks in the Weapon Attack Phase of the turn.

Note that anti-BattleMech-trained infantry platoons make a rare sight on the battlefield. Thorough training in this specialized technique is time-consuming and expensive, and so players should maintain a standard ratio of 1 anti-BattleMech platoon to 8 standard platoons.

LEG ATTACKS

Anti-BattleMech infantry platoons and battle armor-equipped infantry that begin a Weapon Attack Phase in the same hex as a BattleMech may choose to attack the BattleMech's legs instead of making a standard weapon attack. During leg attacks, infantry climb the BattleMech's legs and plant explosive charges in its joints to damage the actuators. Modify the infantry unit's base to-hit number as normal for movement and terrain, and subtract if the BattleMech is prone or immobile.

If the unit making a leg attack also uses the **Pointblank Shots from Hidden Units** rule (see **Hidden Units**, p. 53), do not modify the to-hit number for movement or terrain.

The base to-hit number is based on the number of men currently active in the unit. The more men, the greater the chance of success. Use the Leg Attacks Table to determine the base to-hit number.

If the to-hit roll is successful, the attacker rolls 1D6. A result of 1–3 means the attack hit the left leg, and a result of 4–6 means the attack hit the right leg. If one leg is destroyed, the attack automatically damages the other leg. The attacker then rolls 2D6 and consults the Determining Critical Hits Table. If the result is 7 or less, the leg takes 4 points of damage. If the attack results in one or more critical hits, resolve those normally.

LEG ATTACKS TABLE

Men in Platoon	Battle-Armored Troopers Active	Base To-Hit Number
28–22	4–5	4
21–16	3	7
15–10	2	10
9–5	1	12
4–1	—	No attack possible

SWARM ATTACKS

Swarm attacks represent the boldest and most dangerous attacks that infantry can perform against a BattleMech. A unit making a swarm attack rushes a BattleMech, grappling and climbing it, and then inflicts damage against the MechWarrior or the upper areas of the BattleMech the next turn.

Anti-BattleMech infantry platoons and battle armor-equipped infantry that begin a Weapon Attack Phase in the same hex as a BattleMech may choose to swarm the BattleMech, rather than use their weapons or attack its legs. Find the infantry unit's base to-hit number in the Swarm Attacks Table and modify it for movement and terrain, and by an additional –4 if the BattleMech is prone or immobile.

If the unit making this attack also uses the **Pointblank Shots from Hidden Units** rule, do not modify the to-hit number for movement or terrain.

SWARM ATTACKS TABLE

Men in Platoon	Battle-Armored Troopers Active	Base To-Hit Number
28–22	4–5	7
21–16	1–3	10
15–1	—	No attack possible

The swarm attack to-hit roll determines only if the infantry manages to gain secure footholds on the BattleMech. The infantry unit does not inflict damage on the BattleMech during either Combat Phase of this turn.

Fighting Off Swarm Attacks

If the infantry successfully swarms a BattleMech, the BattleMech can try to remove the swarming unit by using its arms during the Physical Attack Phase of the turn. The BattleMech can make a modified punch by making up to 2 Piloting Skill Rolls (one for each arm), adding a +4 modifier and any modifiers for damage or construction normally applied to a punching attack. A successful punching attack forces the infantry unit off the BattleMech and back into the hex, and the unit takes damage equal to a punch from that BattleMech. If the punching attack is unsuccessful, the BattleMech damages itself in the attempt to get rid of the infantry and must take punching damage from the appropriate arm (rather than falling from the failed Piloting Skill Roll). Roll 1D6 and consult the Front column of the BattleMech Punch Location Table to determine the location of the damage. If a BattleMech makes 2 punches, one may be successful and the other may fail. If the player declares that the 'Mech will make 2 punches, both must be resolved, even if the first is successful.

During the Movement Phase of the following turn, infantry units that have not been shaken off travel with the BattleMech. Jump-capable BattleMechs may attempt to shake off their attackers during the Movement Phase. If the BattleMech jumps, the player makes a Piloting Skill Roll with a +4 modifier upon landing (in addition to any other Piloting Skill Rolls required by the jump). On a successful roll, the infantry unit falls off into the hex in which the BattleMech landed. The infantry unit cannot move or shoot for the rest of the turn, and takes one hit of 11 points of damage.

If the BattleMech enters water of Depth 2 or deeper and the swarming infantry unit is an anti-BattleMech platoon (rather than a battle armor Point), the unit is destroyed. If the BattleMech ends its movement in a hex that is on fire and the swarming infantry unit is an anti-BattleMech platoon (not a bat-

tle armor Point), the infantry fall off. The infantry unit's player rolls 2D6. On a result of 8 or more, the infantry are destroyed. If the infantry unit survives the fall into the burning hex, it cannot move or shoot for the rest of the turn.

If the BattleMech falls (rather than going voluntarily prone) at any time prior to the next Weapon Attack Phase, the infantry unit falls off the BattleMech into that hex. The infantry unit cannot move or shoot for the rest of the turn and takes one hit of 11 points of damage. A BattleMech cannot intentionally go prone to roll and shake off its assailants.

Swarm Attack Damage

If the infantry unit succeeds in staying on the BattleMech, it may make a normal weapon attack during the Weapon Attack Phase of the turn after it successfully swarmed the BattleMech. SRMs may not be used. All attacks automatically hit. The player rolls 2D6 and consults the Swarm Hit Location Table to determine the location of the hit.

SWARM HIT LOCATION TABLE

Dice Roll (2D6)	Location
2	Head
3	Rear Center Torso
4	Rear Right Torso
5	Front Right Torso
6	Right Arm
7	Front Center Torso
8	Left Arm
9	Front Left Torso
10	Rear Left Torso
11	Rear Center Torso
12	Head

Damage from a swarm attack equals the unit's standard weapon damage. Battle armor units apply all damage to one hit location. For example, a full-strength battle armor unit equipped with small lasers will inflict 15 points of damage on one location. Non-armored infantry groups its weapon damage into 5-point clusters and applies it as normal. By its nature, a swarm attack by an anti-BattleMech unit may also result in one or more critical hits. In addition to determining normal damage, the player automatically rolls on the Determining Critical Hits Table, p. 29, even if no internal structure took damage in the attack.

Infantry units can continue to make weapons attacks on the BattleMech per the swarm attack rules in subsequent Weapon Attack Phases until the BattleMech is destroyed or manages to shake off the attacking unit.

BASEMENTS

Most buildings have basements, a feature that can work to a BattleMech's advantage or disadvantage. For example, a heavy BattleMech might walk through a Light Building and unexpectedly crash through the floor, suffering damage. On the other hand, a BattleMech might be able to use a basement for partial cover. To determine if a building has a basement and the effect of a unit falling into a basement, roll 2D6 and consult the Basements Table. The dice roll result determines the type of basement a building has, if any; the damage from falling into a basement; the effects of a basement on vehicles and infantry; and the appropriate table to use for determining damage location.

Note that published scenario packs may state whether or not and what type of basements buildings contain. Only use the Basements Table if the scenario being played does not provide this information.

BASEMENTS TABLE

Dice Roll (2D6)	Effect
2	Double Basement. A BattleMech falls 2 levels. Apply all damage to the legs (use the Front column of the BattleMech Kick Location Table).
3	Basement. A BattleMech falls 1 level. Apply all damage to the legs (use the Front column of the BattleMech Kick Location Table).
4	Basement. A BattleMech falls 1 level (use the Front/Rear column of the BattleMech Hit Location Table).
5	No Basement.
6	No Basement.
7	No Basement.
8	No Basement.
9	Small Basement. Protects infantry from damage, but traps them if the building is destroyed while they are inside. No effect on BattleMechs. Vehicles that fall in cannot get out.
10	Basement. A BattleMech falls 1 level (use the Front/Rear column of the BattleMech Hit Location Table).
11	Basement. A BattleMech falls 1 level head first (use the Front/Rear column of the BattleMech Punch Location Table).
12	Double Basement. A BattleMech falls 2 levels head first (use the Front/Rear column of the BattleMech Punch Location Table).

A unit falls through the floor and into a basement only if the unit's tonnage is greater than the building's current CF.

A vehicle takes normal falling damage when it falls into a basement; use the Front column of the vehicle's Hit Location Table if it moved forward into the basement, or the Rear column if the vehicle reversed into the basement. Any vehicle lacking flight capability that falls into a basement is considered trapped there for the rest of the game. The trapped vehicle may only fire at targets in adjacent hexes, unless the target is higher than the ground floor of the building the trapped unit occupies. If the target occupies a higher elevation, the attack range increases by 1 hex for each level of elevation of the target above the building hex's terrain.

For example, in order for a trapped vehicle to fire on a target 2 hexes away, the target must be at least 1 level higher than the building's underlying terrain. However, the vehicle occupying the basement cannot be shot at except by units that it can hit. See the Basements Table for additional effects.

CARGO CARRIERS

During construction of any vehicle, a player may dedicate specific tonnage to function as cargo space. This tonnage is considered enclosed and protected by the unit's armor. The unit may carry any cargo weighing up to this tonnage without penalty.

A BattleMech or vehicle may also carry unprotected cargo (in slings, strapped to the top, in lightweight containers, and so on) equal to its own tonnage. However, a unit carrying external cargo weighing up to a quarter of its own weight must subtract 3 MP from its Walking/Cruising MP or half of its Walking/Cruising MP (round down), whichever is less. A unit carrying a load weighing more than a quarter of its own tonnage may only move at half its Walking/Cruising MP (round down).

Any successful attack on a unit carrying unprotected cargo also strikes the cargo. If the cargo is infantry, the attacking weapon does 4 times its Damage Value. Determine hit location and damage against the carrying unit as usual; unprotected cargo does not reduce this damage. When the armor that protects the cargo is destroyed, the cargo is destroyed at a rate of 1 ton per point of damage the unit takes.

The hauling unit may drop his cargo during his Movement Phase by expending 1 MP and declaring that he is dumping all his cargo. If the hauling unit is at ground level, the dropped cargo remains in the hex in which it was dropped. If the hauling unit is flying, the cargo takes normal falling damage from landing in the hex above which it was dropped.

FIRE

Many battles are decided not by the skill or abilities of the soldiers involved but by the spread of fire across the battlefield. Players may use the following rules to simulate the effects of fire.

Place a fire counter on any hex that is set on fire during the game. Once started, a fire will continue to burn for the rest of the game. For each turn that a building is on fire, it loses 2 CF. If a BattleMech moves through a burning building, it suffers normal heat build-up from fire as well as all other normal damage.

ACCIDENTAL FIRES

Weapons powerful enough to smash a BattleMech with one blow may also create extensive collateral damage, the most devastating of which is fire. Players may use the following rules to represent accidental fires.

If a weapon attack against a unit occupying a wooded hex misses its target, and the weapon can be used to start fires (see **Intentional Fires**, below), the attacking player rolls 2D6 to determine whether his attack accidentally set a fire or changed the terrain in the target's hex. On a result of 2 or 3, the hex catches fire. If the result is an 11 or 12 and the hex was Light Woods, it is now a Rough hex; if it was Heavy Woods, it is now Light Woods. A building cannot be unintentionally set on fire.

INTENTIONAL FIRES

BattleMechs carry many weapons capable of starting fires in wooded hexes. Once started, fires spread easily from hex to hex, producing heat build-up in BattleMechs moving through or standing in those hexes. Different weapons offer different chances of starting a fire.

Players who intend to start fires may declare that their unit will fire its weapons at any wooded or Building hex. Standard infantry weapons, with the exception of flamers, cannot be used

to start a fire. Modify the base to-hit number by −4 for a stationary target for this attack, as well as for the attacker's normal movement and other appropriate modifiers. On a successful attack, the player rolls 2D6 and consults the Fire Table to determine if the attack started a fire. If the attack starts a fire, place a fire counter on the target hex. Multiple successful attempts to start a fire do not make the fire larger.

A Marauder fires two PPCs at a Medium Building in an attempt to set it on fire. Both attacks hit. Energy weapons normally start fires on a die roll result of 7 or higher, but the player must modify this to-hit number by +1 because the target is a Medium Building, for a To-Hit Number of 8. The player rolls a 9 and a 10. Because the first attack succeeded, the second attack has no further effect, but the building is on fire.

EFFECTS OF FIRE

During the Heat Phase, a BattleMech occupying a burning hex absorbs an additional 5 Heat Points. A BattleMech also absorbs 2 Heat Points for each burning hex that it moved out of during the Movement Phase. A unit occupying a hex ignited during the Attack Phase of the turn will not be affected by the fire until the Heat Phase of the following turn.

Unless the controlling player rolls an 8 or higher on 2D6, any non-BattleMech unit that ends its Movement Phase on the ground in a burning hex or moves along the ground through a burning hex is destroyed. The player must make this roll each time a unit meets either condition.

SPREADING FIRES

Fires on the battlefield can spread from hex to hex in the direction of the wind through wooded and Building hexes, but cannot spread into Clear, Rough, or Water hexes.

Determining Wind Direction

At the beginning of the game, declare one side of a hex on the mapsheet to be Direction 1, numbering the remaining hexsides as 2 through 6, moving clockwise. Roll 1D6. The wind will blow in the direction indicated by the die roll result for the entire game.

Determining Spread

During the End Phase of every turn, check to see if any fires currently on the map spread to additional hexes. Roll 2D6 for the adjacent hex directly downwind of a fire hex. If the result is equal to or greater than 9 and if that hex can burn (see the Fire Table), the fire spreads into the hex. Also roll 2D6 for each of the two hexes adjacent to the burning hex at 60 degrees from downwind (the remaining two hexes in the fire's "forward arc"). If the result is equal to or greater than 11 and if the hex can burn, the fire will spread into that hex as well.

A flammable hex directly downwind from a fire but separated from it by a non-burning hex may also catch on fire. Roll 2D6. On a result of 12, the fire spreads to a flammable hex directly downwind from a fire.

FIRE TABLE

Starting Fires

| Weapon Type	Success Number
Flamer	4+
Energy Weapon[1]	7+
Missile or Ballistic[2]	9+
Inferno	Automatic
Modifiers	
Woods	0
Light Building	0
Medium Building	+1
Heavy Building	+2
Hardened Building	+3
Other terrain	Fire cannot start or spread

Spreading Fires

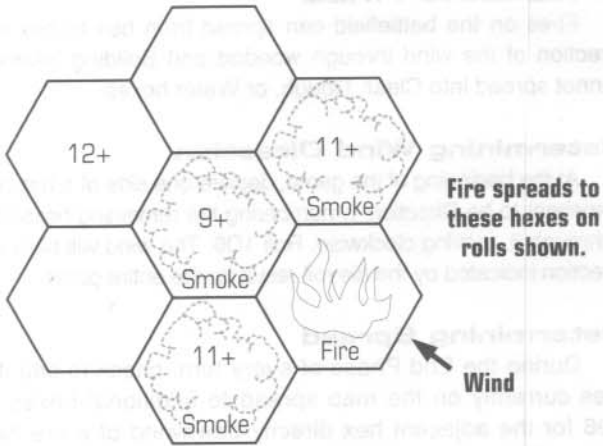|	
Hex is downwind	9+
Hex is 60° from downwind	11+
Crossing non-burning hex	+3

[1]May not use small laser or ER small laser.
[2]May not use Gauss rifle, SRM-2, and standard SRM infantry.
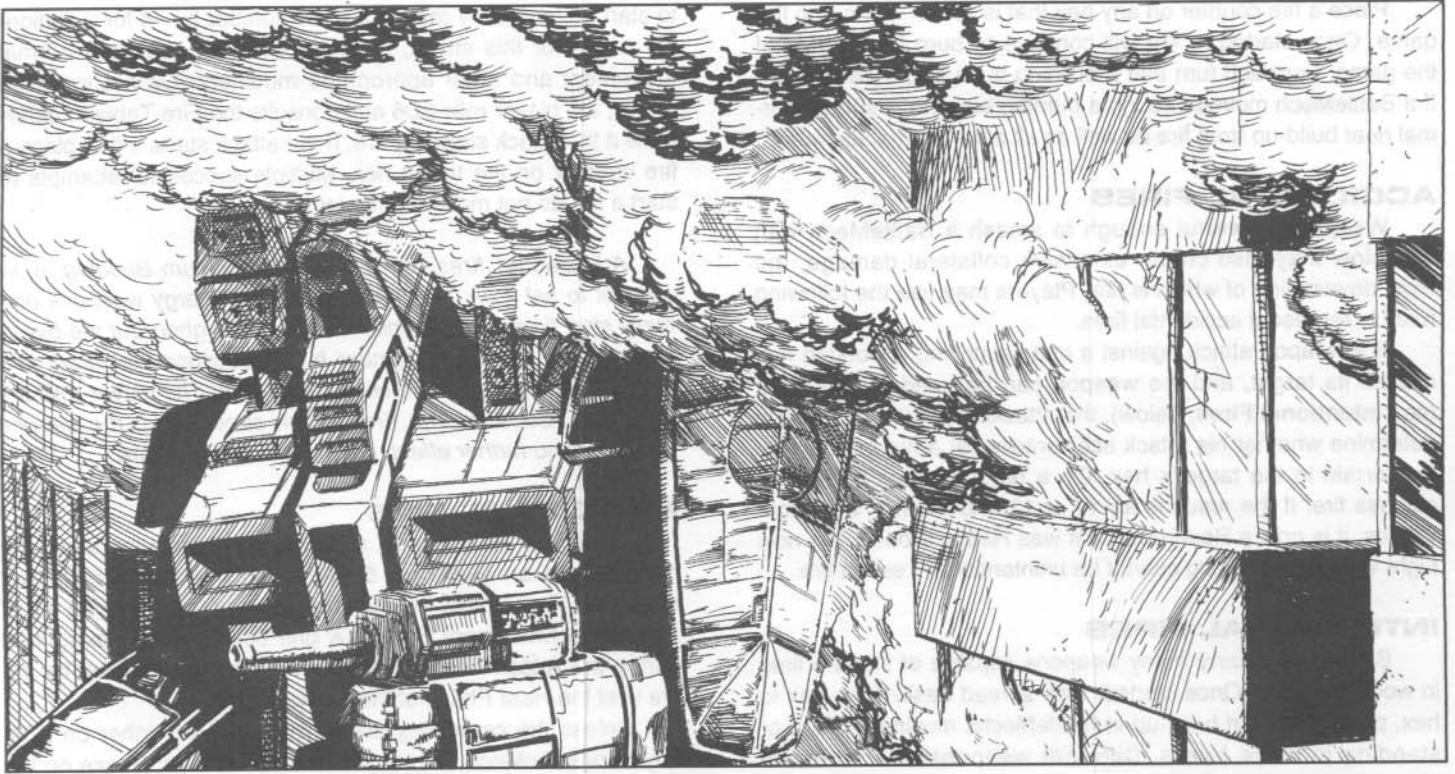
If one hex may catch fire because of its relationship to several burning hexes, roll for each possibility.

Fire spreads to these hexes on rolls shown.

SMOKE

A fire spreads smoke to the adjacent hex downwind and to the 2 adjacent hexes 60 degrees from downwind (i.e., the 3 adjacent hexes of the fire's "forward arc"). It does not create smoke in its own hex (though a fire upwind from it may do so). Treat a smoke-filled hex as though it were heavy woods for purposes of line of sight and to-hit modifiers, except that smoke only rises one level above the terrain it occupies. This means that under most circumstances, BattleMechs are unaffected by smoke.

GUN EMPLACEMENTS

The following rules describe gun emplacements, which serve as simplified, stripped-down versions of static defenses. For larger versions of gun emplacements and more detailed rules for using such defensive tactics, see the **Static Defenses** section of the **BattleTech Tactical Handbook**.

A gun emplacement is a building designed to provide a weapons platform and protection for the crew manning those weapons. Treat a gun emplacement as a standard building with a CF. Any type of weapon can be housed in a gun emplacement. Within the limits of these rules, any number of weapon systems may be fixed in an emplacement or located in a turret

FIRING ARCS

NORTH ARC

GUN EMPLACEMENT

EAST ARC

WEST ARC
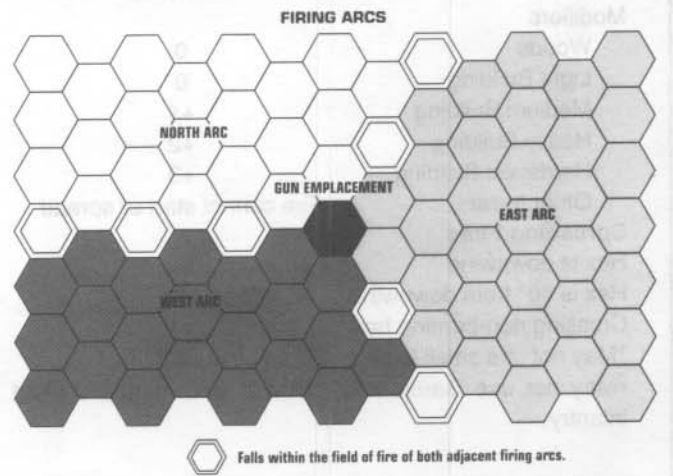
Falls within the field of fire of both adjacent firing arcs.

providing a 360-degree traverse and the same firing arcs as vehicles. Turrets have Armor Points separate from the CF of the emplacement itself.

Players may mount a weapon to fire into one of 3 fixed firing arcs: north, east, or west, as illustrated below.

The north fixed firing arc always lies toward the north side of the mapsheet.

In combat, treat a gun emplacement as a building of the appropriate CF. For example, treat a gun emplacement with a CF 45 as a Heavy Building. When a gun emplacement takes a hit, roll 2D6 and consult the Gun Emplacement Damage Table to determine the hit location.

Attackers firing at a gun emplacement use all standard rules for firing at buildings, including the appropriate to-hit modifiers and fire damage.

If a turret takes damage that locks it into place but leaves the weapons intact, it can fire those weapons into its current arc. If the turret takes damage exceeding its Armor Points, the turret and its weapons are destroyed, but any remaining weapons in the emplacement continue to function until the building itself is reduced to rubble. If the building has no turret and the die roll to determine hit location results in a 3–5 or 9–11, the building itself takes the damage.

GUN EMPLACEMENT DAMAGE TABLE

Dice Roll (2D6)	Effect
2	Critical hit: All weapons destroyed
3	Turret hit and locked (or normal damage)
4–5	Turret hit (or normal damage)
6–8	Building takes normal damage
9–10	Turret hit (or normal damage)
11	Turret hit and locked (or normal damage)
12	Crew killed, weapons intact

HIDDEN UNITS

At the start of a game, each side may secretly hide on the map a number of units determined by the scenario being played or agreed to by all players. Players should write down the number of each hex in which a unit is hidden, and designate the unit's facing.

BattleMechs cannot be hidden in Clear or Paved hexes.

Hidden units will remain hidden until they attack or move, or until an enemy unit moves into their hex, attempts to move into their hex, or ends its movement adjacent to their hex.

If a unit attempts to enter a hex containing a hidden unit, and if by doing so would violate the stacking rules (see **Stacking**, p. 17), the unit immediately ends its movement, and the hidden unit is revealed.

POINT BLANK SHOTS FROM HIDDEN UNITS

When an enemy unit moves into or ends its movement adjacent to a hex occupied by a hidden unit, the hidden unit may immediately fire a pointblank shot, but only if the unit was placed on the map as part of the game set-up and has not yet moved or fired. The unit may only fire weapons with a valid firing arc to the target, using a Range of 1. However, the hidden unit may immediately torso twist or rotate its turret in order to bring its weapons to bear against the target. Do not modify the base to-hit number for movement or terrain. Hidden units cannot make physical attacks. Any damage takes effect immediately during the Movement Phase, and the results may affect the actions of the target unit for the rest of the phase. A unit attacking with a pointblank shot may not move, fire again, or perform any other action during that turn.

IMPROVED POSITIONS

Given enough time, a defending unit can improve the natural defenses of the surrounding terrain. If both sides agree to use the improved positions rule, units that start on the mapsheet may begin the game in improved positions. Treat these field fortifications as a Light Building with a CF of 15. These positions do not affect line of sight or movement in any manner, and a unit cannot climb on top of an improved position to increase its elevation level. Apply standard terrain modifiers to any unit in an improved position. Units that begin the game in improved positions may also use the **Hidden Units** rule.

LRM INDIRECT FIRE

Units armed with LRM-type weapons may fire those missiles indirectly. Indirect fire allows a unit that does not have a direct line of sight to a target to attack that target, though some friendly unit must have a valid line of sight to the target. Resolve LRM indirect fire attacks in the turn they are launched (rather than allowing flight time as for artillery).

The base to-hit number is the Gunnery Skill of the firing unit. Use the following modifiers:

- Range modifier based on the range between the target and the firing unit,
  - +1 for indirect fire,
  - All standard modifiers for target movement,
  - All standard modifiers for attacker movement, and a modifier for the spotter's movement;
  - Terrain modifiers are based on line of sight from the spotting unit.

The spotting unit cannot make any attacks in the turn that it spots for another unit.

An Archer has walked into Hex A, which lies behind a Level 4 hill. On the other side of the hill, in the Light Woods of Hex B, stands a Clan Dragonfly. Normally, the Archer could not attack this target because it does not have a valid line of sight to the Clan 'Mech. However, a friendly Savannah Master, which cruised this turn, is in Hex C with a valid line of sight through a hex of light woods to the Dragonfly. The Archer may fire its LRMs indirectly at the Dragonfly, using the Savannah Master as a spotter. The modified To-Hit Number is 4 (Gunnery Skill) + 2 (medium range) + 1 (indirect fire) + 1 (Archer movement) + 1 (Savannah Master movement) + 1 (through light woods) + 1 (into light woods), for a total of 11.
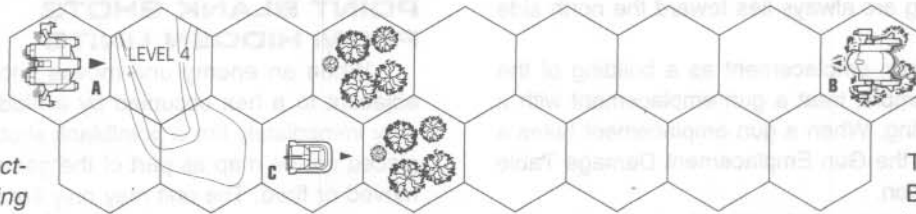
MINEFIELDS

The **CityTech** rules offer the use of three forms of minefields: conventional fields, command-detonated fields, and vibrabomb fields.

Players assign minefields to hexes during the initial game set-up, secretly noting the type and location of each field. The number of minefields available to each player may be determined by the scenario or agreed by all players before beginning play. Though some scenarios may designate minefield locations, only the referee or controlling player should know those locations.

CONVENTIONAL MINEFIELDS

At the start of play, the defending player receives a number of unspecified hexes that he can designate as conventional minefields. Whenever any ground unit (BattleMech, ground vehicle, or infantry, friend or foe) enters one or more of these designated hexes, the minefield automatically attacks the unit. The unit's player rolls 2D6. On a result of 7 or more, the unit has hit a mine. Resolve the attack and apply the damage before the unit continues its movement. The defending player may make this roll secretly, so that if the minefield does not explode, its location remains hidden.

Conventional minefields that explode inflict 6 points of damage to the Front of the unit entering the hex. To determine damage to BattleMechs entering a minefield, use the BattleMech Kick Location Table. A conventional minefield remains active and can make any number of attacks throughout the game, unless cleared (see **Clearing Minefields**, below).

COMMAND-DETONATED MINEFIELDS

At the start of play, the defending player receives a number of unspecified hexes that he can mine with command-detonated explosives. At any time during the turn sequence that the defending player has line of sight to the mined hex, he may detonate any or all of these mines.

Detonating the explosives does 10 points of damage to each unit occupying the hex and 4 points of damage to each unit in each adjacent hex. Buildings will absorb damage until reduced to rubble, then the remainder of the damage affects units in the building. This applies to buildings in the target or an adjacent hex.

Apply damage from command-detonated mines to the Front side of the unit. To determine damage to BattleMechs entering a minefield, use the BattleMech Kick Location Table. Resolve the attack and apply the damage as soon as the explosion occurs.

A command-detonated hex may only be exploded once during a game.

VIBRABOMB MINEFIELDS

At the start of play, the defending player receives a number of unspecified hexes that he can plant with vibrabombs. Treat a vibrabomb like a conventional mine, with the following exceptions. Vibrabombs can only be set off by the unique vibrations created by an approaching BattleMech. Vehicles and infantry cannot trigger vibrabombs. Any BattleMech can set off a vibrabomb, and vibrabombs go off automatically.

Vibrabombs have a variable sensitivity, and when placed must be set to respond to a specific mass. BattleMechs massing 10 or more tons lighter than the vibrabomb setting will not set off the minefield. A BattleMech massing more than 10 tons heavier than the setting will set off the mine at a distance of 1 hex for each 10 full tons by which it is heavier than the bomb's setting.

For example, if the bomb is set to respond to a 40-ton 'Mech, and a 75-ton *Marauder* enters a hex 3 hexes away, the bomb explodes. A 30-ton *Javelin* walking directly through the hex containing the bomb would not set it off.

A unit occupying the same hex as an exploding vibrabomb takes 10 points of damage to its Front side. Exploding vibrabombs do not affect adjacent hexes or the airspace above the target hex. Use the BattleMech Kick Location Table to determine damage to a BattleMech.

A vibrabomb only explodes once during a game.

CLEARING MINEFIELDS

Clearing minefields is a dangerous job requiring great skill and finesse, and so it is usually assigned to infantry. If an enemy infantry unit ends its turn in a mined hex, the opposing player must be informed, even if the field has not been detonated.

Infantry that spends 1 Movement Phase in a mined hex without moving may elect to clear the field instead of attacking during the Weapon and Physical Attack Phases. If the infantry unit rolls 2D6 with a result of 10 or higher in the Weapon Attack

Phase, they have successfully cleared the field. A die roll result of 5 or less means that the minefield exploded; the infantry takes normal damage. Conventional fields remain active after an accidental detonation, but accidental detonation clears vibrabomb and command-detonated minefields. If multiple infantry units are attempting to clear the same hex, all must make a successful roll to clear the minefield. If any unit rolls a 5 or less, all units attempting to clear the hex take damage.

The player may also use off-board artillery fire or an LRM-20 salvo to clear a minefield. The player must designate the fire mission to clear the minefield. When the fire mission hits the hex, the player rolls 2D6. On a result of 5 or better, the strike clears the minefield. Artillery fire also does normal damage to units occupying the mined hex, though an LRM-20 salvo does not. Mines cleared in this way do no damage, and clearing artillery fire does not affect adjacent hexes in any way.

CONSTRUCTION
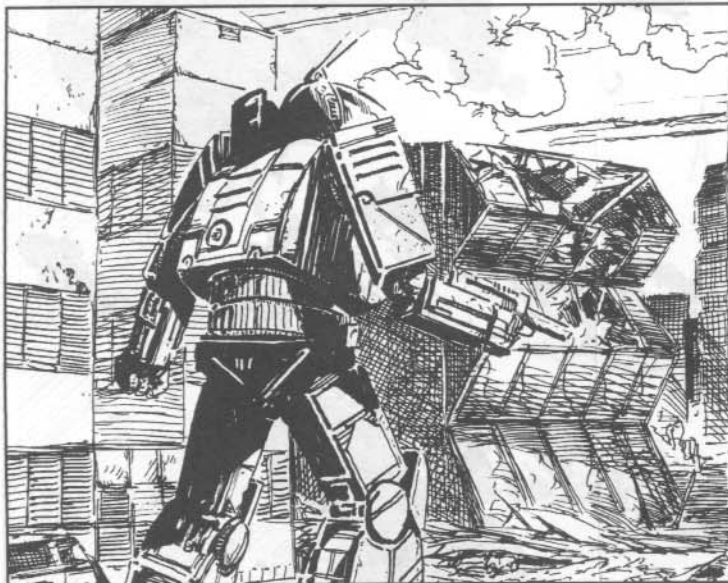
CityTech players may want to design BattleMechs and vehicles to fit certain specifications or to serve specific purposes. This chapter provides rules for constructing such custom machines, including comprehensive Clan and Inner Sphere Weapons and Equipment Tables. Detailed descriptions of the weapons and equipment used in BattleMech and vehicle construction appear in the **Equipment** section, p. 66.

BATTLEMECH CONSTRUCTION

The following system makes it possible for players to construct unique BattleMechs using any legal mix of speed, armor, and weapons they desire. These designs can then be pitted against other custom and standard machines on the battlefield.

In order to design a BattleMech, a player will need a piece of scratch paper, a pen, the appropriate Weapons and Equipment Table, and a blank BattleMech Record Sheet. BattleMech design requires the player to perform the following steps in the order given. Each step is explained in detail below.

1. Determine Technology Base
2. Choose Tonnage
3. Determine Engine Rating
4. Add Control Components
5. Allocate Tonnage for Internal Structure
6. Determine Jump Capability
7. Add Extra Heat Sinks
8. Add Armor
9. Add Weapons, Ammunition, and Other Equipment
10. Complete Critical Hit Table
11. Allocate Armor Points
12. Complete the Record Sheet

1. DETERMINE TECHNOLOGY BASE

BattleMechs can be constructed using one of two available technology bases, Inner Sphere or Clan. BattleMechs constructed using Clan technology tend to be lighter, more compact, and to generate less heat than their Inner Sphere counterparts. If a player uses Clan technology, he must also choose whether to design an OmniMech or a standard BattleMech.

Based on the chosen technology, the player must be sure to use the appropriate Weapons and Equipment Table for his BattleMech.

2. CHOOSE TONNAGE

BattleMechs weigh between 10 and 100 tons (increasing in increments of 5 tons). Within these limits, the player may choose any tonnage. Record the BattleMech tonnage at the top of the sheet of scratch paper. The total weight of the BattleMech's engine, weapons, armor, and other components may not exceed this amount.

3. DETERMINE ENGINE RATING

Each BattleMech carries one fusion plant to power its movement and other systems. The relative output of this power plant is measured by its engine rating. A BattleMech's engine rating is determined by the 'Mech's weight and desired speed. Multiply the BattleMech's tonnage by the desired Walking MP. The result is the 'Mech's engine rating.

Tonnage x Desired Walking MP = Engine Rating

The Fusion Engine Table, p. 59, lists the tonnage taken up by engines rated from 10 to 400. On the scratch paper, subtract the weight of the engine itself from the total tonnage of your BattleMech. The remaining tonnage provides room to add other components and systems. Note that a player may select an XL version of an engine if he wishes (see XL Engines, p. 72 in **Equipment**).

4. ADD CONTROL COMPONENTS

Every BattleMech must have a cockpit, which contains the MechWarrior's control station, life-support system, and electronic sensors. All BattleMech cockpits weigh 3 tons, regardless of the BattleMech's overall tonnage. Subtract 3 tons from the BattleMech's remaining tonnage.

In addition to its cockpit, every BattleMech must be equipped with a powerful gyroscope to keep it upright and able to move. The exact size of a BattleMech's gyroscope depends on its engine rating. Divide the BattleMech's engine rating by 100 (rounding up). The resulting number is the weight of the gyroscope in tons. Subtract this figure from the remaining tonnage.

5. ALLOCATE TONNAGE FOR INTERNAL STRUCTURE

The internal structure takes up 10 percent of a BattleMech's total weight. The Internal Structure Table shows the number of tons of internal structure required by every BattleMech of a given weight, and the number and allocation of the BattleMech's internal structure boxes. The head's internal structure is not listed on the table, because all BattleMech heads take up 3 internal structure boxes.

Mark out any excess boxes on the Internal Structure Diagram of the record sheet to indicate the number of boxes that make up each hit location.

Players may also choose to build their 'Mechs using endo steel technology. If the 'Mech will use endo steel in its construction, reduce the internal structure weight requirement by half.

JUMP JET WEIGHT TABLE

'Mech Tonnage	Jump Jet Weight
10–55	.5 tons/Jump MP
60–85	1 ton/Jump MP
90–100	2 tons/Jump MP

Note that players who choose endo steel technology for an Inner Sphere 'Mech must fill in 14 critical slots (with endo steel) on the BattleMech's Critical Hit Table. Players who add endo steel to a Clan BattleMech must fill in 7 critical slots on the BattleMech's Critical Hit Table. (See also **Endo Steel Internal Structure**, p. 68 in **Equipment**.)

6. DETERMINE JUMP CAPABILITY

BattleMechs may be equipped with jump jets in their legs and/or backs to allow jump movement. The weight of the jump jets depends on the weight of the BattleMech and the Jumping MP desired, as shown in the Jump Jet Weight Table. A BattleMech cannot be constructed with Jumping MP greater than its Walking MP.

Each jump jet gives the BattleMech one Jumping Movement Point, so that a BattleMech with 4 jump jets would have a Jumping MP of 4.

Subtract the total weight of the BattleMech's jump jets from the 'Mech's remaining tonnage.

INTERNAL STRUCTURE TABLE

Total 'Mech Tonnage	Tons of Internal Structure	Center Torso Boxes	L/R Torso Boxes	Each Arm Boxes	Each Leg Boxes
10	1	4	3	1	2
15	1.5	5	4	2	3
20	2.0	6	5	3	4
25	2.5	8	6	4	6
30	3.0	10	7	5	7
35	3.5	11	8	6	8
40	4.0	12	10	6	10
45	4.5	14	11	7	11
50	5.0	16	12	8	12
55	5.5	18	13	9	13
60	6.0	20	14	10	14
65	6.5	21	15	10	15
70	7.0	22	15	11	15
75	7.5	23	16	12	16
80	8.0	25	17	13	17
85	8.5	27	18	14	18
90	9.0	29	19	15	19
95	9.5	30	20	16	20
100	10.0	31	21	17	21

7. ADD EXTRA HEAT SINKS

Heat sinks dissipate heat produced by movement, weapons fire, and other actions. Every BattleMech comes equipped with 10 heat sinks integral to the design that do not take up tonnage. However, most BattleMechs need more than 10 heat sinks to get rid of excess heat efficiently. Extra heat sinks can be acquired at the cost of 1 ton per heat sink.

Players may choose either double or standard heat sinks (see **Heat Sinks**, p. 69 in **Equipment**). A BattleMech may only carry one type of heat sink, either standard or double heat sinks, but not a mixture of both. If the player chooses to equip the 'Mech with double heat sinks, the 10 heat sinks built into the 'Mech's design are double sinks. If standard heat sinks are selected, the 10 heat sinks that come with the 'Mech are standard heat sinks.

8. ADD ARMOR

Armor helps protect the BattleMech's internal structure and critical components. Armor can be standard or ferro-fibrous. For each ton of standard armor selected, the BattleMech has 16 Armor Points. Ferro-fibrous armor gives the 'Mech even more Armor Points (see **Ferro-Fibrous Armor**, p. 68 in **Equipment**). Note that carrying ferro-fibrous armor requires the player to fill in the same number of critical slots on the BattleMech's Critical Hit Table as for endo steel internal structure.

Determine the total number of Armor Points the BattleMech will carry. These points will be assigned to the BattleMech's locations in Step 11. Armor must be added in 1/2- or 1-ton lots.

9. ADD WEAPONS, AMMUNITION, AND OTHER EQUIPMENT

Every weapon or piece of equipment placed on a BattleMech weighs a certain amount, as shown in the Tons column of the Weapons and Equipment Tables. Select the weapons and equipment that the new BattleMech will carry. Add at least one ton (1/2 ton for machine guns) of ammunition for each class of missile launcher or ballistic weapon (except one-shot weapons, which can have no additional ammo). This required extra ammunition provides a varying number of shots, depending on the launcher or weapon. Note that certain pieces of equipment must be assigned to specific locations on the BattleMech's Critical Hit Table.

Players creating OmniMechs do not mount weapons at this stage. Instead, they allocate a specific tonnage to weapons and equipment pods. At the start of each game, a player with an OmniMech then adds appropriate weapons and equipment up to this allocated tonnage and available critical slots.

10. COMPLETE CRITICAL HIT TABLE

Each record sheet provides a Critical Hit Table describing every part of the BattleMech's body. Certain sections of this table are already filled in, because certain components and equipment must be located in specific body segments. In this step, the player assigns the BattleMech's additional heat sinks, jump jets, and weapons to different parts of its body, and places them in a slot for that location on the Critical Hit Table.

Remember that certain items take up more than one critical slot on the table. These items should be specially noted on the tables, because a critical hit to any one of these slots destroys the entire component or piece of equipment, and further hits to other slots assigned to the same item have no further effect (see sample record sheet, following).

Fill in critical slots for endo steel, ferro-fibrous armor and XL engines, as noted in their descriptions above and in the **Equipment** section.

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Assign one critical slot on either a leg or torso location to each jump jet's exhaust port.

Only a portion of the BattleMech's heat sinks require critical slots. A number of heat sinks equal to the engine rating divided by 25 (round down) are assumed to be an integral part of the engine. These heat sinks are only destroyed if the engine is totally destroyed, and so cannot take critical hits. For example, if the player adds 5 heat sinks (for a total of 15) to a BattleMech carrying an engine rated at 210, 8 of

these sinks (210 ÷ 25) are considered integral to the engine and do not have to be assigned to critical slots. The other 7 [10 (free) + 5 (extra) − 8 (unallocated)] must be assigned to critical slots.

The number of blank critical slots remaining on the table for a given location limits the number of weapons and other equipment that may be placed in that location. Many weapons take up more than one critical slot, as shown on the Weapons and Equipment Tables. For example, the center torso has only

FUSION ENGINE TABLE

Engine Rating	Engine Manufacturer	Tonnage	Engine Rating	Engine Manufacturer	Tonnage
10	Omni	0.5	210	GM	9.0
15	GM	0.5	215	Core Tek	9.5
20	Pitban	0.5	220	DAV	10.0
25	Omni	0.5	225	VOX	10.0
30	Nissan	1.0	230	Leenex	10.5
35	VOX	1.0	235	GM	11.0
40	GM	1.0	240	Pitban	11.5
45	GM	1.0	245	Magna	12.0
50	DAV	1.5	250	Magna	12.5
55	VOX	1.5	255	Strand	13.0
60	Leenex	1.5	260	Magna	13.5
65	Nissan	2.0	265	Vlar	14.0
70	Omni	2.0	270	GM	14.5
75	GM	2.0	275	Core Tek	15.5
80	VOX	2.5	280	Vox	16.0
85	DAV	2.5	285	Pitban	16.5
90	DAV	3.0	290	Omni	17.5
95	Nissan	3.0	295	GM	18.0
100	Hermes	3.0	300	Vlar	19.0
105	DAV	3.5	305	GM	19.5
110	GM	3.5	310	Magna	20.5
115	GM	4.0	315	GM	21.5
120	GM	4.0	320	Pitban	22.5
125	Vlar	4.0	325	VOX	23.5
130	Magna	4.5	330	VOX	24.5
135	Hermes	4.5	335	Leenex	25.5
140	Leenex	5.0	340	VOX	27.0
145	Omni	5.0	345	Vlar	28.5
150	GM	5.5	350	Magna	29.5
155	GM	5.5	355	LTV	31.5
160	LTV	6.0	360	Hermes	33.0
165	VOX	6.0	365	Hermes	34.5
170	DAV	6.0	370	Magna	36.5
175	Omni	7.0	375	GM	38.5
180	GM	7.0	380	GM	41.0
185	GM	7.5	385	LTV	43.5
190	DAV	7.5	390	Magna	46.0
195	Nissan	8.0	395	Hermes	49.0
200	Nissan	8.5	400	LTV	52.5
205	Vlar	8.5			

2 slots left empty on its Critical Hit Table, but a PPC takes up 3 spaces. Therefore, the player cannot place a PPC in a BattleMech's center torso. To free up more slots, a player may choose to remove arm actuators from his design. Only hand and lower arm actuators may be removed in this fashion. BattleMechs lacking these actuators suffer penalties when making certain types of physical attacks, as explained in **Combat**, p. 32.

The critical slots for AC/20-type weapons, Arrow IV missile systems, and artillery weapons (Long Tom, Thumper, and Sniper) can be split between two adjacent locations. For all other weapons and equipment, all critical slots must be in a single location.

Each ton of ammunition occupies 1 critical slot, but that slot need not be in the same location as the weapon that uses the ammo. Note that though machine gun ammo can be acquired in half-ton lots, a critical slot can accommodate a full ton of MG ammo.

11. ALLOCATE ARMOR POINTS

Divide the total Armor Points carried by the BattleMech among the 11 different locations shown on the Armor Diagram. The player chooses the exact number of Armor Points used to protect a given area, but the number of Armor Points in a single location may not exceed twice the number of Internal Structure boxes in that location, regardless of whether the armor is standard or ferro-fibrous. For example, if a BattleMech has 10 Internal Structure boxes in its left arm, then the left arm can carry no more than 20 Armor Points. The only exception to this rule is that all BattleMechs may place up to 9 Armor Points on their heads.

Note that the center, left, and right torso locations mount both Front and Rear armor. The armor allocated to the Front of a torso location cannot be used to protect the Rear of that location, and vice versa. The total armor allocated to the Front and Rear of a torso location cannot be greater than twice the number of the location's Internal Structure boxes.

Use the Armor Diagram on the record sheet to indicate the number of Armor Points protecting each part of the BattleMech's body. Mark out any excess boxes in the same way as for the Internal Structure Diagram.

12. COMPLETE THE RECORD SHEET

Complete the record sheet by listing the BattleMech's Mech Data and Warrior Data.

OUTFITTING AN OMNIMECH

Rather than using a standard OmniMech design, players may customize their OmniMechs to best suit the conditions of each battle by adding special equipment and weapons. Each OmniMech design indicates the machine's permanent features and specifies a number of tons available for additional gear. Certain types of equipment can be installed on any OmniMech, subject to weight and space limitations.

WEAPONS

Players can always install weapons, provided that sufficient slots and tonnage remain available. All Clan weapons may be fitted to an OmniMech. When mounting weapons, be sure to allow space and include ammunition for those that require it. Weapon pods for OmniMechs automatically include the CASE ammo-protection feature (see **CASE**, p. 68 in **Equipment**) at no cost in space or weight.

All OmniMechs may also carry the following optional features.

HEAT SINKS

Players may add additional heat sinks to an OmniMech if slots are available. Be sure to install compatible heat sinks; some OmniMech designs use standard heat sinks, but most use double heat sinks. If a player chooses to create an OmniMech that will carry weapons that produce a great deal of heat, he may add the heat sinks with the weapons themselves so that the sinks can be removed with the weapons. This choice gives the player greater design flexibility. For example, the player may decide to reconfigure the OmniMech for a mission best accomplished by using ballistic weapons, which produce less heat when fired than lasers, or that will take place in a cool atmosphere. Fewer heat sinks will be necessary, and the space can be better used for other equipment. Heat sinks may be mounted in pods attached to any portion of the OmniMech, provided sufficient critical slots are available in the chosen location.

JUMP JETS

Players may add jump jets to any OmniMech, whether or not its standard configuration has jump jets. Jump jets may only be mounted in pods on the left and right legs, the left and right torsos, and the center torso, and these locations must have sufficient critical slots available. Use the Determine Jump Capability rules, p. 57, for determining the necessary tonnage of jets to give the OmniMech the desired jump capacity.

ELECTRONICS

Probes, targeting gear, and other high-tech electronics may be mounted in OmniMech pods or individually elsewhere on the 'Mech, provided there are sufficient slots available in the chosen hit location to fit the gear.

OTHER EQUIPMENT

OmniMech pods can accommodate any of the equipment described in **Equipment**, p. 66, including anti-missile systems, A-pods, and so on. However, engines, endo steel, MASC, and armor cannot be added to an OmniMech using pod technology, for obvious reasons.

USING ADD-ON PODS

When preparing an OmniMech for battle, use the descriptions of the standard OmniMech designs of the appropriate

CLAN WEAPONS AND EQUIPMENT TABLE

Type	Heat	Damage	Minimum	Short	Range Medium	Long	Tons	Crit.	Ammo
Energy Weapons									
ER Laser (Large)	12	10	—	1–8	9–15	16–25	4	1	—
ER Laser (Medium)	5	7	—	1–5	6–10	11–15	1	1	—
ER Laser (Small)	2	5	—	1–2	3–4	5–6	.5	1	—
ER PPC	15	15	—	1–7	8–14	15–23	6	2	—
Flamer	3	2	—	1	2	3	.5	1	—
Pulse Laser (Large)	10	10	—	1–6	7–14	15–20	6	2	—
Pulse Laser (Medium)	4	7	—	1–4	5–8	9–12	2	1	—
Pulse Laser (Small)	2	3	—	1–2	3–4	5–6	1	1	—
Ballistic Weapons									
Anti-Missile System	1	*	—	—	—	—	.5	1	24
Flamer (Vehicle)	3	2	—	1	2	3	.5	1	20
Gauss Rifle	1	15	2	1–7	8–15	16–22	12	6	8
LB 2-X AC	1	2	4	1–10	11–20	21–30	5	3	45
LB 5-X AC	1	5	3	1–8	9–15	16–24	7	4	20
LB 10-X AC	2	10	—	1–6	7–12	13–18	10	5	10
LB 20-X AC	6	20	—	1–4	5–8	9–12	12	9	5
Machine Gun	0	2	—	1	2	3	.25	1	200
Ultra AC/2	1	2	2	1–9	10–18	19–27	5	2	45
Ultra AC/5	1	5	—	1–7	8–14	15–21	7	3	20
Ultra AC/10	3	10	—	1–6	7–12	13–18	10	4	10
Ultra AC/20	7	20	—	1–4	5–8	9–12	12	8	5
Missile Weapons									
LRM 5	2	1/missile	—	1–7	8–14	15–21	1	1	24
LRM 10	4	1/missile	—	1–7	8–14	15–21	2.5	1	12
LRM 15	5	1/missile	—	1–7	8–14	15–21	3.5	2	8
LRM 20	6	1/missile	—	1–7	8–14	15–21	5	4	6
Narc Missile Beacon	0	NA	—	1–4	5–8	9–12	2	1	6
SRM 2	2	2/missile	—	1–3	4–6	7–9	.5	1	50
SRM 4	3	2/missile	—	1–3	4–6	7–9	1	1	25
SRM 6	4	2/missile	—	1–3	4–6	7–9	1.5	1	15
Streak SRM-2	2	*	—	1–4	5–8	9–12	1	1	50
Streak SRM-4	3	*	—	1–4	5–8	9–12	2	1	25
Streak SRM-6	4	*	—	1–4	5–8	9–12	3	2	15
Other Equipment *									
Active Probe	—	—	—	—	—	5	1	1	—
Anti-Personnel Pod	0	*	—	—	—	—	.5	1	—
Artemis IV FCS	—	—	—	—	—	—	1	1	—
CASE	—	—	—	—	—	—	0	0	—
Double Heat Sink	–2	—	—	—	—	—	1	2	—
ECM Suite	—	—	—	—	—	6	1	1	—

CLAN WEAPONS AND EQUIPMENT TABLE

Type	Heat	Damage	Minimum	Short	Range Medium	Long	Tons	Crit.	Ammo
Other Equipment *									
Heat Sink	−1	—	—	—	—	—	1	1	—
MASC	—	—	—	—	—	—	**	**	—
Targeting Computer	—	—	—	—	—	—	*	*	—
*See special rules for this equipment.									
**'Mech Tonnage ÷ 25									

INNER SPHERE WEAPONS AND EQUIPMENT TABLE

Type	Heat	Damage	Minimum	Short	Range Medium	Long	Tons	Crit.	Ammo
Energy Weapons									
ER Large Laser	12	8	—	1–7	8–14	15–19	5	2	—
ER PPC	15	10	—	1–7	8–14	15–23	7	3	—
Flamer	3	2	—	1	2	3	1	1	—
Large Laser	8	8	—	1–5	6–10	11–15	5	2	—
Medium Laser	3	5	—	1–3	4–6	7–9	1	1	—
Small Laser	1	3	—	1	2	3	.5	1	—
PPC	10	10	3	1–6	7–12	13–18	7	3	—
Pulse Laser (Large)	10	9	—	1–3	4–7	8–10	7	2	—
Pulse Laser (Medium)	4	6	—	1–2	3–4	5–6	2	1	—
Pulse Laser (Small)	2	3	—	1	2	3	1	1	—
Ballistic Weapons									
Anti-Missile System	1	*	—	—	—	—	.5	1	12
Autocannon/2	1	2	4	1–8	9–16	17–24	6	1	45
Autocannon/5	1	5	3	1–6	7–12	13–18	8	4	20
Autocannon/10	3	10	—	1–5	6–10	11–15	12	7	10
Autocannon/20	7	20	—	1–3	4–6	7–9	14	10	5
Flamer (Vehicle)	3	2	—	1	2	3	.5	1	20
Gauss Rifle	1	15	2	1–7	8–15	16–22	15	7	8
LB 10-X AC	2	10	—	1–6	7–12	13–18	11	6	10
Machine Gun	0	2	—	1	2	3	.5	1	200
Ultra AC/5	1	5	2	1–6	7–13	14–20	9	5	20
Missile Weapons									
LRM 5	2	1/missile	6	1–7	8–14	15–21	2	1	24
LRM 10	4	1/missile	6	1–7	8–14	15–21	5	2	12
LRM 15	5	1/missile	6	1–7	8–14	15–21	7	3	8
LRM 20	6	1/missile	6	1–7	8–14	15–21	10	5	6
Narc Missile Beacon	0	—	—	1–3	4–6	7–9	3	2	6
SRM 2	2	2/missile	—	1–3	4–6	7–9	1	1	50
SRM 4	3	2/missile	—	1–3	4–6	7–9	2	1	25
SRM 6	4	2/missile	—	1–3	4–6	7–9	3	2	15
Streak SRM-2	2	*	—	1–3	4–6	7–9	1.5	1	50

INNER SPHERE WEAPONS AND EQUIPMENT TABLE

Type	Heat	Damage	Minimum	Short	Range Medium	Long	Tons	Crit.	Ammo
*Other Equipment**									
Artemis IV FCS	—	—	—	—	—	—	1	1	—
Beagle Active Probe	—	—	—	—	—	4	1.5	2	—
CASE	—	—	—	—	—	—	.5	1	—
Double Heat Sink	–2	—	—	—	—	—	1	3	—
Guardian ECM Suite	—	—	—	—	—	6	1.5	2	—
Hatchet	0	*	—	—	—	—	***	***	—
Heat Sink	–1	—	—	—	—	—	1	1	—
MASC	—	—	—	—	—	—	**	**	—

*See special rules for this equipment.
**'Mech Tonnage ÷20
***'Mech Tonnage ÷15

weight to determine the available tonnage for add-on pods. The equipment in the add-on pods cannot exceed this tonnage.

Designate a location for each pod to be attached to the OmniMech. The locations selected must have sufficient critical slots available for the systems being added.

Lower arm and hand actuators are themselves mounted as pods on OmniMechs, and so may be attached and detached freely between battles. They cannot be mounted on an arm that will carry any type of PPC, autocannon, or Gauss rifle. The player may choose whether to use actuators in conjunction with other arm-mounted weapons. If the player decides not to mount actuators, the appropriate arm actuator and hand actuator slots of the Arm Critical Hits Table are considered empty and may be used as extra critical slots for arm-mounted weapons. If an OmniMech's hand lacks a hand actuator, it cannot use that hand for any purpose (lifting, carrying, using clubs, and so on). OmniMechs without hand and/or arm actuators make less effective punching attacks.

The location and contents of all add-on pods must be designated before the battle begins.

VEHICLE CONSTRUCTION

The following system makes it possible for players to construct unique vehicles and pit these designs against other custom and standard machines on the battlefield.

In order to design a vehicle, a player will need a piece of scratch paper, a pen, the appropriate Weapons and Equipment Table, and a blank Vehicle Record Sheet. Vehicle design requires the player to perform the following steps in the order given. Each step is explained in detail below.

1. Determine Technology Base
2. Choose Tonnage
3. Determine Engine Rating

4. Add Cockpit and Control Components
5. Add Lift Equipment
6. Allocate Tonnage for Internal Structure
7. Add Armor
8. Add Weapons, Ammunition, and Other Equipment
9. Allocate Armor Points
10. Complete the Record Sheet

1. DETERMINE TECHNOLOGY BASE

Vehicles may be constructed using one of two available technology bases, Inner Sphere or Clan. Though they did not use them in the invasion of the Inner Sphere, the Clans can and do construct combat vehicles. Vehicles constructed using Clan technology tend to be lighter and more compact than their Inner Sphere counterparts.

Based on the chosen technology, the player must be sure to use the appropriate Weapons and Equipment Table for his vehicle.
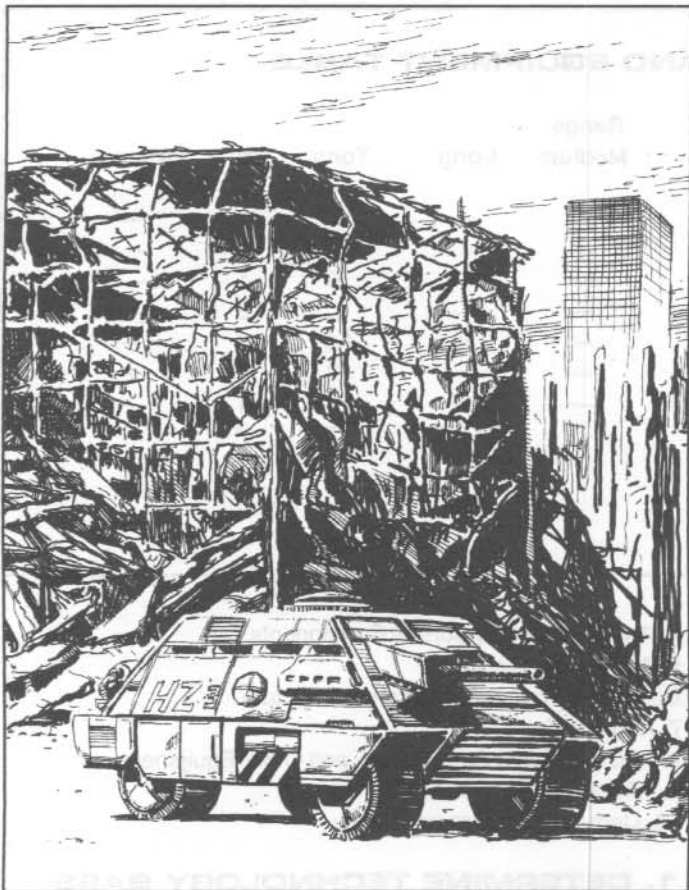
2. CHOOSE TONNAGE

Vehicle weight is limited by type, as shown in the Vehicle Table. Players may choose any tonnage within these limits. Record your vehicle's tonnage at the top of the sheet of scratch paper. The total weight of the vehicle's engine, weapons, armor, and other components may not exceed this amount.

3. DETERMINE ENGINE RATING

Each vehicle carries one power plant to power its movement and other systems. A vehicle's engine rating is determined by its weight, desired speed, and suspension or lift factor. Multiply the vehicle's tonnage by its desired Cruising MP, then subtract the suspension/lift factor (see Suspension Factor or Lift Factor in the Vehicle Table) from this total. The result is the vehicle's engine rating.

(Tonnage x Desired Cruising MP) – Suspension/Lift Factor = Engine Rating

VEHICLE TABLE

Ground Vehicles

Tracked

Maximum Tonnage	100
Suspension Factor	0
Terrain Restrictions	No Heavy Woods or Water

Wheeled

Maximum Tonnage	80
Suspension Factor	20
Terrain Restrictions	No Rough, Rubble, Woods, or Water

Hovercraft

Maximum Tonnage	50

Suspension Factor:

Vehicle Tons	Suspension Factor
01–10	40
11–20	85
21–30	130
31–40	175
41–50	235

Terrain Restrictions	No Woods
Lift Equipment	10 % of hovercraft tonnage
Minimum Engine Weight	20 % of hovercraft tonnage

Naval Vehicles

Hydrofoils

Maximum Tonnage	100

Suspension Factor:

Vehicle Tons	Suspension Factor
01–10	60
11–20	105
21–30	150
31–40	195
41–50	255
51–60	300
61–70	345
71–80	390
81–90	435
91–100	480

Terrain Restrictions	Water hexes of Depth 1+ only
Lift Equipment	10 % of hydrofoil tonnage

For example, a player creates a 25-ton hovercraft with a Cruising MP of 10 (25 x 10 = 250). The suspension factor for a 25-ton hovercraft is 130. This hovercraft needs an engine with a rating of 110 (250 − 130 = 120). A player may select an XL version of the engine if he wishes (see XL Engines, p. 72 in **Equipment**).

Players may choose whether their vehicle will use a fusion or internal combustion engine. An internal combustion engine (ICE) weighs twice as much as an identically rated fusion engine, but ICE engines are cheaper and more readily available. Also, vehicles with fusion engines must add extra shielding and transmission equipment, the weight of which equals one half the weight of the fusion plant itself. Internal combustion engines are not available in the XL variant. (See Fusion Engine Table, p. 59.)

4. ADD COCKPIT AND CONTROL COMPONENTS

Every vehicle must have a cockpit, which combines the equipment necessary to control the craft in combat. These control components take up 5 percent of the vehicle's total tonnage (rounded up to the nearest half ton).

5. ADD LIFT EQUIPMENT

Hovercraft use special equipment to achieve their unique movement. This equipment weighs 10 percent of the vehicle's total tonnage (rounded up to the nearest half ton).
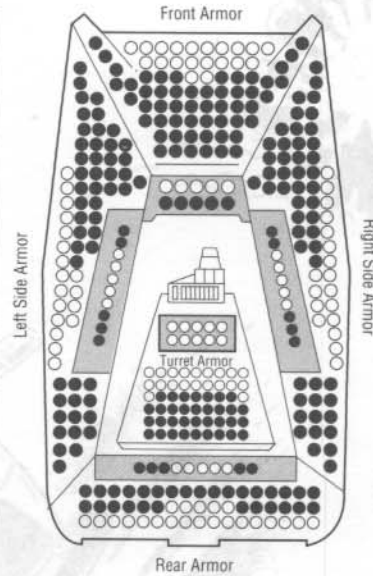
6. ALLOCATE TONNAGE FOR INTERNAL STRUCTURE

A vehicle's internal structure takes up 10 percent of its total weight (rounded up to the nearest half ton). Each of the vehicle's 5 damage locations (4 if it has no turret or rotor)

BATTLETECH®
GROUND VEHICLE RECORD SHEET

Unit Type: VEDETTE MED. TANK		Driving Skill: 5	
Movement Type: TRACK	Cruising MP:	Flank MP:	Gunnery Skill: 4
Tonnage: 50	5	8	**Weapons and Ammo**
Engine Rating: 250 Tonnage: 25	Fusion ☐ I.C.E. ☒		AC/5 TURRET
Control Tonnage: 2.5 Lift Equipment: 0			Ammo (AC/5) 20 BODY
Power Amplifier: 0 Heat Sinks: 0			MACHINE GUN FRONT
Internal Structure: 5.0			Ammo (MG) 200 BODY
Turret: 0.8			
Armor tons: 6 Armor points: 76			
Front: 20			
Left/Right side: 18 / 18			
Rear: 20			
Turret: 20			

Front Armor
Left Side Armor
Right Side Armor
Turret Armor
Rear Armor

ment, add 1 item to this base per 5 full tons of vehicle weight. For example, a 22-ton hovercraft can mount up to 9 items, while a 75-ton tank can mount as many as 20.

Each weapon and piece of special equipment counts as 1 item. For construction purposes, all ammunition carried for a particular type of launcher or weapon (LRM 10, AC/5, SRM 4, LRM 20) counts as 1 item, regardless of the number of tons carried. If the vehicle has a cargo hold or infantry bay, it counts as a single item, regardless of its size.

receives 1 internal structure box for every 10 tons of the vehicle's total tonnage (rounded up).

7. ADD ARMOR

Armor helps protect the vehicle's internal structure. Vehicles can mount standard or ferro-fibrous armor. For each ton of standard armor selected, the vehicle has 16 Armor Points. Ferro-fibrous armor gives the vehicle more Armor Points (see **Ferro-Fibrous Armor**, p. 68 in **Equipment**).

Determine the total number of Armor Points the vehicle will carry. These points will be assigned to the vehicle's locations in Step 9. Armor can only be added in 1/2- or 1-ton lots.

8. ADD WEAPONS, AMMUNITION, AND OTHER EQUIPMENT

Every weapon placed on a vehicle weighs a certain amount, as shown in the Tons column of the Weapons and Equipment Table. Select the weapons and equipment that the new vehicle will carry. Add at least 1 ton (1/2 ton for machine guns) of ammo for each class of missile launcher or ballistic weapon (except one-shot weapons, which can have no additional ammo). This required extra ammo provides a varying number of shots, depending on the launcher or weapon.

Though the open construction of vehicles allows them to carry more equipment than BattleMechs, limits do exist. Because vehicles do not have critical slots like 'Mechs, they are limited only by the total number of items they can carry, regardless of size. A vehicle can mount a base of 5 items of equipment. Because larger vehicles can carry more equip-

Energy weapons may require extra equipment, depending on the type of engine installed. The number of heat sinks must be equal to the number of Heat Points that all mounted energy weapons can generate in 1 turn. Remember that all fusion plants are designed with 10 integral heat sinks built in at no cost in tonnage. The player should add more heat sinks if the vehicle's weapons require more. Vehicles combining internal combustion engines and energy weapons also require power amplifiers at a ratio of 1 ton per 10 tons of energy weapons (round up to the nearest 0.1 ton). Vehicles cannot mount double heat sinks.

Most vehicles will mount some or all of their weapons in turrets. Any number of weapons can be mounted in a turret. A vehicle may have only 1 turret. A turret weighs 10 percent of the tonnage of the mounted weapons (round up to the nearest half ton). If a weapon is not mounted in a turret, it will have a fixed arc of fire, in the direction that it is mounted.

9. ALLOCATE ARMOR POINTS

Divide the total number of Armor Points carried by the vehicle among the 5 locations shown on the Vehicle Record Sheet (4 for vehicles without a turret). The player chooses the exact number of Armor Points used to protect each location—the number of Armor boxes and Internal Structure boxes on the record sheet are not limitations on how much armor may be assigned to a location.

10. COMPLETE THE RECORD SHEET

Fill in the remaining information on the record sheet.

EQUIPMENT
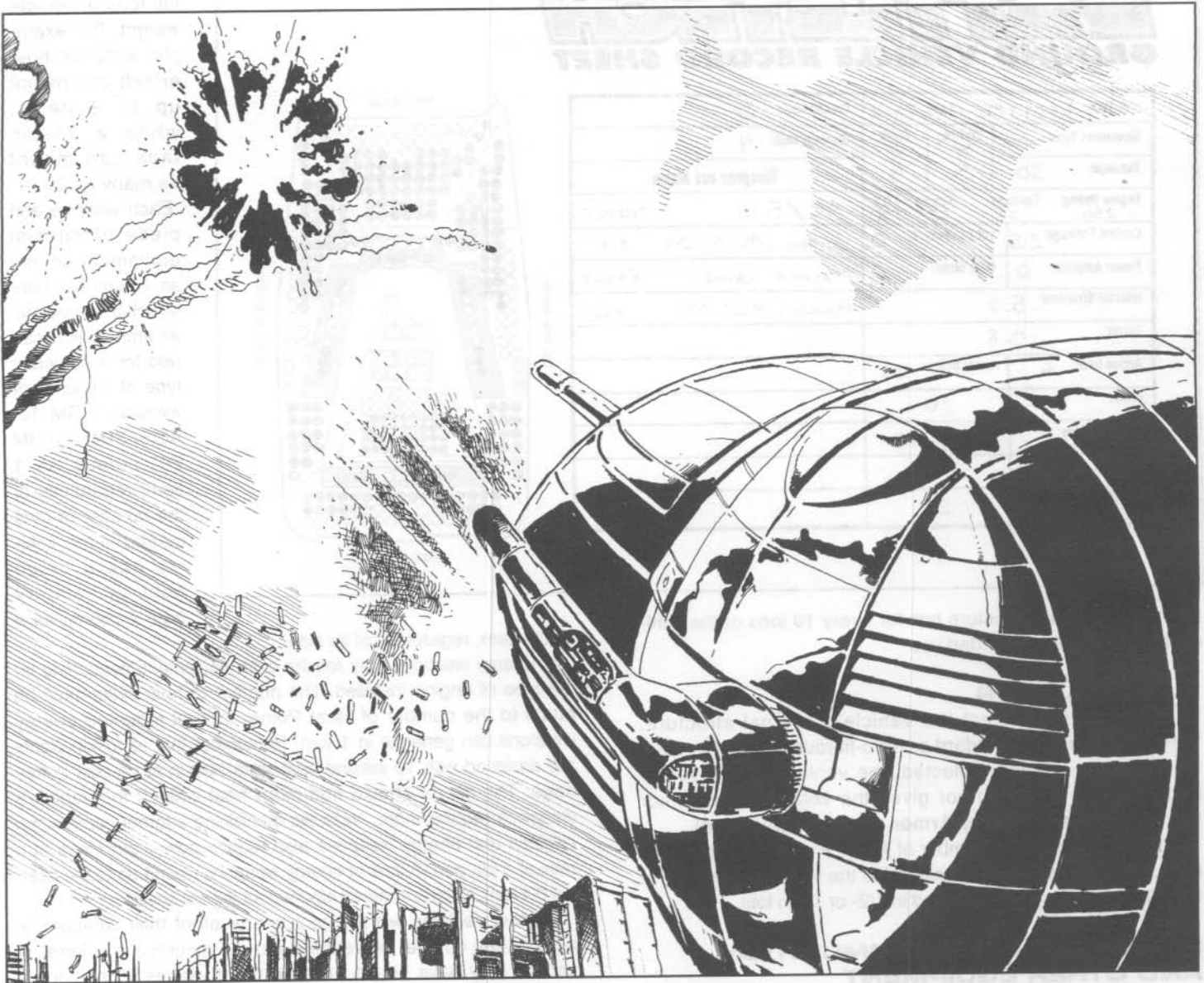
This section describes and provides rules for all weapons and equipment currently in use by Inner Sphere and occupying Clan forces. The statistics for heat produced, Damage Value, range, and tonnage of each weapon and piece of equipment appear in the Weapons and Equipment Tables in **Construction**, p. 61.

Except where otherwise indicated, the equipment in this section can be used in BattleMechs and vehicles. Both the Clans and the Inner Sphere have access to most of the technology discussed here, but the Clan versions of this equipment are generally lighter and more compact, and so considerably more efficient.

All equipment appears in alphabetical order.

ANTI-MISSILE SYSTEM

The anti-missile system is a rapid-fire, point-defense machine gun capable of tracking, engaging, and destroying incoming missiles. While very effective, the system's primary drawback is its high ammunition consumption. Both Clan and Inner Sphere anti-missile systems suffer from this handicap, though the Clans use flechette ammunition, increasing the number of rounds that can be stored in an ammo bin.

When a salvo of missiles attacks any BattleMech or vehicle equipped with an anti-missile system, the system automatically engages the salvo before the attacking player makes a to-hit roll for the missiles. Because the system engages automatically, it will attack the first salvo of missiles aimed at the defending

unit each turn. A salvo is defined as all of the missiles launched from a single rack. For example, the 15 missiles launched from an LRM-15 rack are considered a salvo, as are the 2 missiles launched from a Streak SRM-2 rack.

To determine the effect of an anti-missile system, the defending player rolls 1D6 if the BattleMech is using an Inner Sphere system, or 2D6 if the anti-missile system is Clan-built. The result is the number of missiles shot down. The defender makes another 1D6 roll and multiplies the result by 2 to determine how much anti-missile ammunition the system used shooting down the attacking missiles. If this result indicates that the system spent more ammunition than was actually available, the system is out of ammunition. As long as there was at least one shot available to fire, the number of missiles destroyed remains valid.

After the defender resolves the anti-missile fire, the attacking player resolves the attack of the surviving missiles. Use the number of missiles that survived to determine the appropriate column on the Missile Hits Table, p. 27, rounding to the closest column head. If the number of surviving missiles falls exactly between the value of two different column heads, use the smaller of the two. For example, an LRM-10 flight reduced to 9 missiles would still use the 10 column, but it would use the 6 column if it were reduced to 8 missiles. A flight reduced to 1 missile always hits with that 1 missile. A flight cannot hit with more missiles than the ones remaining after the anti-missile attack, regardless of the result of consulting the table.

The anti-missile system can be used only once per turn, and will not defend against anything but missiles. It cannot shoot down missiles aimed at any other target. The anti-missile system cannot be used against Thunder or Swarm LRMs, but can be used against a Narc pod and Streak SRMs. In the latter case, if the Streak to-hit roll fails and so the missiles fail to achieve lock-on (see **Streak Short-Range Missiles**, p. 71), the results of the anti-missile system's firing are disregarded; the weapon does not fire, uses no ammunition, and does not create heat.

An anti-missile system may be "turned off" during the End Phase of any turn. While it is turned off the system will not engage any incoming missiles. Anti-missile systems that have been turned off may only be turned back on again in subsequent End Phases.

Treat anti-missile system ammo as machine gun ammo for purposes of ammo explosions.

ANTI-PERSONNEL PODS

Anti-personnel pods (A-pods) consist of directional mines installed on the lower legs of a BattleMech—which is precisely where infantry must attack if they plan to plant explosives on the sensitive actuator mechanisms. When an A-pod is triggered, it blasts a cloud of shrapnel over an effective radius of roughly 15 meters, with a devastating effect against troops unfortunate enough to be in the open at the moment of the explosion.

Only Clan BattleMechs have access to A-pods. A-pods may only be mounted in the legs. Because A-pods are one-shot weapons, each can be used only once per game.

When infantry units make anti-Mech attacks or pointblank shots from hiding (see rules for **Anti-BattleMech Infantry**, p. 48, and **Hidden Units**, p. 53 in **Special Case Rules**), a BattleMech with an A-pod can defend itself by detonating the pod before the infantry player makes the to-hit roll. If the defender triggers an A-pod, any unarmored infantry platoon in the same hex as the BattleMech takes 1D6 – 1 points of damage before resolving its own attack. (This is an exception to the rule prohibiting weapons fire against units in the same hex.) Regardless of the damage caused, the A-pod is expended. A-pods do not affect battle armor.

Unexpended A-pods that take a critical hit do not explode, but simply become inoperative.

ARTEMIS IV FIRE-CONTROL SYSTEM

The Artemis IV fire-control system improves the accuracy of standard missile launchers. Mounted in a dome on the side of the launcher, the Artemis locks onto a target, illuminates it with an infrared beam, and fires a spread of missiles. The system provides constant course-correction data to the missiles in flight using a tight-beam microwave communications link, which increases the number of missiles that hit the target.

Resolve any missile attack from an Artemis-equipped launcher per the standard rules. However, before consulting the Missile Hits Table, add 2 to the die roll result. This potentially increases the number of hits against the target. If the Artemis system assigned to a specific launcher is destroyed, the missile launcher can still be fired as a normal launcher.

Artemis units can be attached to any standard long- or short-range missile launcher. The system must be mounted in the same location on the BattleMech as the launcher it controls (though missile launchers mounted in the center torso may be controlled by an Artemis system mounted in the head). Each launcher requires its own Artemis system. If any class of missile system (i.e., LRM or SRM) aboard the BattleMech or vehicle is outfitted with the Artemis IV, all Artemis-compatible delivery systems of that class must be equipped in the same way. The Artemis IV may only be mounted on standard missile launchers; it cannot be used with the Streak SRM, Narc missile beacon, or Swarm and Thunder munitions. It may be used with one-shot missile packs. The Artemis system uses special missiles that are identical to standard missiles for all game purposes except that they cost twice as much.

The Artemis system has no effect on LRM missiles that are fired indirectly.

AUTOCANNON

An autocannon is a rapid-firing, auto-loading weapon that fires high-speed streams of high-explosive, armor-piercing shells. Light autocannon range from 30 to 90mm, and heavy autocannon may be 80 to 120mm or larger.

Autocannon are also available in advanced LB-X (p. 70) and Ultra (p. 72) versions.

BEAGLE ACTIVE PROBE

Capable of detecting and identifying even shut-down and camouflaged units at distances much greater than standard-issue electronic warfare (EW) suites, the active probe makes a valuable addition to any recon unit.

In **CityTech**, the Beagle active probe will detect any hidden BattleMech or vehicle (but not infantry) if, at the end of a Movement Phase, the concealed unit lies inside the probe's operating radius (5 hexes for Clan probes and 4 hexes for Inner Sphere probes) and line of sight exists between the unit carrying the probe and the concealed unit. An active probe will not detect units hidden underwater.

Beagle active probes have no effect in the game unless the players are using the hidden units rules found on p. 53 in **Special Case Rules.**

CARGO SPACE

During construction of any vehicle, a player may devote tonnage to cargo space. This tonnage is considered enclosed and protected by the armor of the unit. The unit may carry any cargo weighing up to this tonnage without penalty.

When the armor protecting the cargo has been destroyed, the cargo itself is destroyed at a rate of 1 ton per point of damage.

Units can drop their cargoes. During the Movement Phase, the player may declare that his unit is dumping its cargo, then spend 1 MP to do so. If the hauling unit is at ground level, the dropped cargo simply remains in the hex in which it was dropped. If the hauling unit is flying above ground level, the cargo takes normal falling damage and lands in the hex above which it was dropped.

BattleMechs cannot allocate internal space to cargo but may carry unprotected cargo per the rules for cargo carriers, p. 50 in **Special Case Rules.**

CELLULAR AMMUNITION STORAGE EQUIPMENT (CASE)

CASE is a damage-control technology that mitigates the effects of internal ammunition explosions. When ammo explodes in a location protected by CASE, the force of the explosion blows out through specially designed panels and armor, directing the main force of the explosion away from the BattleMech's vital components, such as the cockpit or the engine.

If ammo in a CASE-equipped location explodes, it damages the weapons, internal structure, and equipment mounted in that location. Apply excess damage to the armor of the location (the rear armor, for torso locations); any remaining damage not absorbed by the armor simply dissipates. Remember that the loss of all internal structure in a side torso location also renders the corresponding arm useless.

In vehicles, the CASE system blows out the rear armor; the vehicle itself is crippled, but the crew members and passengers survive the explosion.

If an ammo explosion transfers into a location protected by CASE, the internal structure in that location takes damage as normal. All excess damage is blown out the armor, as above. For example, if an Inner Sphere BattleMech suffered an arm ammo explosion and damage transferred to a side torso equipped with CASE, the internal structure of the side torso would suffer damage as normal, then the excess damage would be applied to the rear torso armor for that side. Any remaining damage would harmlessly blow out the CASE panels.

All Clan weapon pods containing ammo-fed weapons automatically have CASE, at no cost in tonnage or critical slots. Inner Sphere 'Mechs and vehicles can have CASE built in. Inner Sphere BattleMechs can only carry CASE in torso locations; Clan BattleMechs may carry CASE in any location.

An Inner Sphere CASE system requires 1 critical slot and weighs half a ton per location protected. Critical hits on locations occupied by CASE have no effect and should be rerolled.

ENDO STEEL INTERNAL STRUCTURE

Endo steel was designed especially for use in BattleMech skeletons. Using zero-G manufacturing techniques that uniformly mix high-density steel with lower density titanium and aluminum, the process produces a metal twice as strong per unit of weight as standard skeleton materials, but at an increase in overall bulk. The Clans have refined endo steel production to the point of great efficiency, but the Successor States' use of the material is still severely hampered by the scarcity of orbital manufacturing facilities.

BattleMechs built with endo steel need allocate only half the standard weight to the internal structure (rounding up to the nearest half-ton), but the bulk of the alloy takes up 7 critical slots in Clan 'Mechs and 14 in Inner Sphere BattleMechs. The player may allocate these slots wherever he sees fit, even filling up whole locations if desired, but the indicated number of slots must be filled by the endo steel. Critical hits against an endo steel critical slot have no effect and should be rerolled.

FERRO-FIBROUS ARMOR

Ferro-fibrous armor is an improved version of ordinary BattleMech and vehicle armor that uses woven fibers of ferro-steel and ferro-titanium to greatly increase its tensile strength. However, like endo steel skeletons, ferro-fibrous armor is bulkier than standard armor plating of equivalent weight.

Units that use ferro-fibrous armor carry more Armor Points for the same weight. Calculate the normal number of Armor Points, then multiply this number by 1.12 (for Inner Sphere units) or by 1.2 (for Clan units), rounding to the

nearest whole number (round .5 down). The result is the number of Armor Points of ferro-fibrous armor. To account for the bulk of the armor, place ferro-fibrous armor in 7 critical slots for Clan 'Mechs and in 14 for Inner Sphere 'Mechs. Critical hits against slots filled by ferro-fibrous armor have no effect and should be rerolled.

FERRO-FIBROUS ARMOR

	Slots ('Mech)	Items (Vehicle)	Armor Multiplier
Clan	7	1	1.2
Inner Sphere	14	2	1.12

FLAMERS

Under normal circumstances, a flamer does not cause heat damage to a target. However, if all players agree, they may choose (each time the unit fires) to add 2 to a target BattleMech's Heat Scale for that turn as a result of the flamer attack, rather than doing 2 points of damage.

GAUSS RIFLE

The Gauss rifle uses a series of magnets to propel a projectile through the rifle barrel toward a target. While it requires a great deal of power to operate, this weapon generates very little heat and can achieve a muzzle velocity twice that of any conventional weapon.

Gauss rifle ammunition consists of a slug of nickel-ferrous metal. If a location containing Gauss ammunition takes a critical hit, the ammo does not explode, but the hit destroys the ammo-feed mechanism, rendering the rest of the ammunition in that location useless.

A critical hit on the Gauss rifle itself destroys the capacitors that power the weapon, causing a catastrophic discharge of the capacitor's stored energy, with results similar to an ammunition explosion. If a Gauss rifle takes a critical hit, treat the result as a 20-point ammunition explosion in the location containing the rifle.

GUARDIAN ECM SUITE

The Guardian ECM suite is a broad-spectrum jamming and electronic countermeasure device designed to reduce the effectiveness of enemy long-range scanning and surveillance equipment.

A Guardian system nullifies the effects of any enemy Beagle active probe (though that system would notice that it is being jammed), Artemis IV fire-control system, Narc missile beacon, or C3 computer, when any of these systems are within 6 hexes of a Guardian-equipped unit. Friendly systems of these types are not affected.

The Guardian ECM suite does not affect other scanning and targeting devices, such as TAG and Clan targeting computers.

A Guardian negates the systems listed above even if they are not being used against the Guardian-equipped unit. It also affects any enemy system whose path passes within 6 hexes of the Guardian. For example, if the LOS to a Narc or the LOS between two C3-linked units passes within 6 hexes of an enemy Guardian, the line of communication is broken until the Guardian no longer interferes. If the line of communication between a C3 command unit and the rest of its lance is broken, the entire network stops functioning. Individual slave units affected by a Guardian are simply cut off from the rest of the network.

Using the illustration for the C3 Computer, p. 115, the situation would be quite different if the BattleMech in Hex A was equipped with a Guardian ECM suite. The 'Mechs in Hexes B and C would be cut off from the network, since they are within 6 hexes of the Guardian unit. The 'Mech in Hex D is still connected to the network, but cannot use firing data from the cut-off units or the 'Mech in Hex E, which has no LOS. Furthermore, if the C3 command unit is carried by either of the 'Mechs in Hexes B or C, the entire network would collapse until they could destroy or move away from the Guardian-equipped unit.

HATCHET

Some Inner Sphere BattleMechs come equipped with hatchets. Like other weapons, hatchets account for part of a BattleMech's weight and take up one or more locations on the Arm section of the Critical Hit Table. To use the hatchet, a BattleMech must have a functioning hand actuator in the arm in which the hatchet is mounted.

A BattleMech uses a hatchet to make physical attacks per the standard clubbing attack rules, but can make this attack with only one arm, rather than the two needed to swing a club. Though a BattleMech may mount two hatchets, one in each arm, it can only make one hatchet attack per turn. Weapons mounted on the arm not carrying the attacking hatchet may be fired in the turn's Weapon Attack Phase. Hatchets weigh 1 ton for each 15 tons, or fraction thereof, of the BattleMech's total weight. Hatchets take up 1 critical location for each ton that they weigh.

Hits on a hatchet critical location represent damage to the shaft of the weapon. If a hatchet critical location is hit, the weapon can no longer be used.

Only Inner Sphere BattleMechs are known to mount hatchets; the Clans consider physical combat to be dishonorable.

HEAT SINKS

Heat sinks are devices designed to protect an engine and other components from heat build-up by shedding a certain amount of engine-and-weapons-generated heat. Standard heat

sinks dissipate 1 point of heat per turn; double heat sinks dissipate 2 points of heat per turn.

Because they dissipate heat at twice the rate of standard heat sinks, double heat sinks cool a BattleMech much more efficiently. Though they weigh the same as standard heat sinks, the double versions are considerably bulkier, taking up extra space aboard a BattleMech. The Clan version of the double heat sink takes up twice the room of standard sinks, while the Inner Sphere model is three times as bulky.

BattleMechs with double heat sinks dissipate 2 points of heat for each operating sink each turn. If the heat sink is submerged in water, it dissipates an additional 2 points, but the maximum additional heat that can be dissipated underwater is 6 points.

Single and double heat sinks cannot be mixed in any unit. Vehicles cannot carry double heat sinks.

LB-X AUTOCANNON

An improvement on the common autocannon, the LB-X makes use of light, heat-dissipating alloys to reduce weight and heat build-up. These materials make the weapon more expensive than the standard autocannon, but its advantages outweigh the higher cost.

The LB-X autocannon can fire cluster munitions, which act like an anti-BattleMech shotgun in combat. When fired, the ammunition fragments into several smaller submunitions. This improves the attacker's chances of striking a critical location, but disperses total damage by spreading hits over the target area rather than concentrating the damage on one location. Cluster munitions can be used only in LB-X autocannon, not in standard or Ultra autocannon types.

Note that the LB-X series of autocannon is not available in an Ultra configuration, and it cannot make use of that autocannon type's doubled fire rates.

Before the start of play, the player should designate any LB-X ammunition as either standard or cluster munitions. Ammo must be designated in full-ton lots. When declaring fire, the player must announce the type of ammo being used and mark it off his record sheet accordingly.

For LB-X attacks made with cluster munitions, apply a –1 modifier to the to-hit number at all ranges. Resolve successful attacks with cluster rounds like a missile hit, with the player rolling 2D6 and consulting the column of the Missile Hits Table that corresponds to the size of his LB-X autocannon to see how many submunitions strike the target. Roll a separate location for each hit, each of which causes 1 point of damage.

When firing cluster munitions, LB-X autocannons cannot be used to make aimed shots, and they also lose the benefits of the firing unit's Clan targeting computer (if any).

LB-X autocannon use all other restrictions and rules for normal autocannon of the appropriate size.

LASER

Laser is an acronym for "Light Amplification through Stimulated Emission of Radiation." When used as a weapon, a laser damages its target by concentrating extreme heat on a small area. BattleMech lasers are designated as small, medium, and large.

Lasers are also available in extended-range (ER) versions. These types of lasers offer longer range, but at a considerably higher cost in heat.

LONG-RANGE MISSILES (LRM)

Long-range missile racks fire indirect salvos of high-explosive missiles at distant targets.

MACHINE GUN

Though rarely carried by BattleMechs, the high rate of fire produced by machine guns makes them excellent anti-infantry weapons.

MYOMER ACCELERATOR SIGNAL CIRCUITRY (MASC)

Myomer accelerator signal circuitry (MASC) allows a BattleMech to put on a short burst of speed, at some risk to its fragile leg actuators. It works by boosting the signals to the myomer leg musculature, causing those muscles to contract and relax at a quicker rate than is usually possible. This increases speed, but the stress to the actuators and myomer can cause a catastrophic failure, especially after prolonged MASC use. Note that MASC only affects leg musculature.

Any BattleMech with MASC can activate the system before the Movement Phase of any turn. The player declares that he is using the MASC system and rolls 2D6. On a result of 3 or higher, the BattleMech can run that turn at a speed equal to double its standard Walking MP. On a result of 2, the leg actuators freeze up for the rest of the game, the effects of which are identical to the 'Mech taking a critical hit to both hip actuators.

The player must roll 2D6 every turn the 'Mech is using MASC to determine whether or not the system freezes up. On the second consecutive turn of MASC use, a result of 4 or less immobilizes the BattleMech. A result of 6 or less freezes the actuators on the third consecutive turn, 10 or less on the fourth, and the legs automatically fail on the fifth turn of MASC use.

For each turn the system is not used, reduce the number at which the muscles will freeze by one step, but never below 3. For example, a player using MASC for three consecutive turns needs a result of 7 or higher on the third turn to stay mobile. After an intervening turn of not using the system, the player would need a 5 or higher to avoid freezing up. Two turns without using MASC then reduces the threshold number to the original 3.

Both Clan and Inner Sphere BattleMechs can use MASC, with the Clans gaining a slight advantage in weight and bulk. To determine tonnage and critical slot requirements for MASC, divide an Inner Sphere 'Mech's tonnage by 20, and a Clan 'Mech's tonnage by 25. Round all fractions to the near-

est whole number, rounding .5 up. The result is the amount of 'Mech tonnage that must be allocated for MASC, and the number of critical slots it takes up. MASC is incompatible with triple-strength myomer.

NARC MISSILE BEACON

The Narc missile beacon is a heavily modified missile launcher that fires special missiles, called pods, made up of powerful homing beacons mounted behind a magnetic head. If the missile hits its target, the pod broadcasts a homing signal for any friendly missile systems equipped to receive Narc transmissions. Like the Artemis IV system, Narc pods potentially increase the number of missiles that hit a target. The Narc system is superior to the Artemis in that the signal lock cannot be broken once established, because the beacon is attached to the target and cannot be destroyed.

Players may fire 1 Narc pod per launcher each turn. If the attack hits, the pod is attached to the target unit. In all following combat phases, any unit attacking with Narc-equipped missiles adds +2 to the result of the roll on the Missile Hits Table. This modifier remains in effect for the targeted BattleMech for the duration of the battle.

The Narc system can be used to control both standard SRM and LRM missile attacks. It cannot affect Streak SRMs, Artemis IV, or Swarm or Thunder munitions. Missiles capable of homing in on a beacon cost twice as much as standard missiles because they carry special guidance links. Other Narc beacons in the target hex do not confuse Narc-guided missiles. Narc pods cannot be fired into or inside buildings.

Exploding Narc pods cause 2 points of damage per pod.

PARTICLE PROJECTOR CANNON (PPC)

A particle projector cannon (PPC) consists of a magnetic accelerator firing high-energy proton or ion bolts that cause damage through both impact and high temperature. PPCs are among the most effective weapons available to BattleMechs.

PPCs also come in extended-range (ER) versions, which fire at a longer range but produce considerably higher heat.

PULSE LASERS

The pulse laser uses a rapid-cycling, high-energy pulse to generate multiple laser beams, creating an effect comparable to machine-gun fire. This design improves the hit probability of laser attacks and causes more damage per hit, though at a cost of increased heat and a somewhat shorter effective range.

Treat pulse lasers the same as standard lasers, but apply a –2 modifier to the base to-hit number.

SHORT-RANGE MISSILES (SRM)

SRMs are direct-trajectory missiles with high-explosive or armor-piercing explosive warheads. They are accurate only at ranges of less than 300 meters, but more powerful than LRMs.

SINGLE-SHOT MISSILE LAUNCHERS

Vehicles and BattleMechs sometimes carry a single-shot version of a standard missile launcher. Such a system is designated by "OS" (one-shot) following the missile nomenclature, such as LRM-20 (OS).

The player does not purchase any ammunition for this launcher because it can be fired only once during the game. The single-shot missile launcher can be fitted to use special munitions, such as Swarm or Thunder LRM rounds, and special targeting devices (Streak, Narc, or Artemis), at double the base cost of the launcher. All other performance characteristics are the same as for multi-shot launchers of the same type and ordnance.

Single-shot launchers weigh half a ton more than the standard missile launcher of the same type.

STREAK SHORT-RANGE MISSILES

A Streak SRM missile contains a targeting device that prevents the missile from launching unless the missile has locked onto a target. Once locked on, the missile automatically hits.

A player attempting to lock a Streak missile on target must make a standard to-hit roll during the Weapon Attack Phase as if he were firing a standard SRM. If successful, the player may immediately fire his Streak SRM at the locked-on target. All Streak missiles automatically hit, and the player rolls as normal to determine the hit locations. If the roll fails, the player fails to achieve a lock and so does not fire the SRMs and does not build up any heat. The player must roll for a targeting lock each turn, even if he achieves a lock on the target in the previous turn. The player must make a separate to-hit roll for each individual Streak system being fired.

TARGETING COMPUTER

In addition to the various special targeting systems developed for missiles, the Clans have developed advanced targeting systems, unmatched by anything in the Inner Sphere, that can enhance the performance of the following types of direct-fire weapons: lasers, PPCs, Gauss rifles, and autocannon. This advanced targeting computer is only available to Clan units.

To make an attack using the targeting computer, use all standard rules for weapons of that type, but modify the to-hit number for any attack using the unit's direct-fire weapons by –1.

The player may use the targeting computer to attempt to attack a specific hit location. All direct-fire weapons used for this type of attack must fire at the same location, which must be visible to the firing unit. For example, an attack on the right side of the target cannot be directed against the left arm, left leg, or left torso. Because the player is effectively making a called shot, add a +3 modifier to the to-hit number for all weapons. (This modifier replaces the –1 modifier applied to standard attacks using this technology.) The head of a 'Mech may never be targeted in this manner.

The size and weight of an advanced targeting computer depends on the amount of direct-fire weaponry it will control.

For every 5 tons or fraction thereof of direct-fire weapons it will control, the targeting computer requires 1 ton and 1 critical space.

THUNDER LONG-RANGE MISSILES

Thunder LRMs deliver minefields that scatter. The "Thunder" warhead is the Inner Sphere designation for FAS-CAM (Field Artillery Scatterable Mines) and the Clans use a virtually identical warhead.

Players should note the number of tons of LRM ammo set aside as Thunder-FASCAM munitions before beginning play. Ammo must be designated in full-ton lots.

Thunder LRMs attack hexes rather than units. Modify the to-hit roll for these attacks for intervening terrain and the attacking unit's movement and condition only, never for the movement or condition of units in the target hex or for firing at an immobile target. If the attack misses the target hex, it lands 1D6 hexes in a random direction. The hex hit by a Thunder LRM attack is considered mined from that point on by a conventional minefield equal in strength to the number of missiles in the attack. An LRM-20 will lay a 20-point minefield, while an LRM-5 lays a 5-point field. Like other conventional minefields, a Thunder minefield remains active and can make any number of attacks throughout the game, unless cleared (see **Clearing Minefields**, p. 54 of **Special Case Rules**).

A unit that occupies a hex during the same round that hex is targeted with a Thunder LRM is not subject to a mine attack on leaving the hex. Because the unit's pilot or crew can easily see where the missile scatters its mines, the unit may safely exit the hex.

Any unit that attempts to move into a mined hex must roll 2D6 to determine if it encounters mines. On a result of 7 or more the unit hits a mine. The Damage Value varies according to the size of the LRM launcher. An LRM-15 will lay a field that does 15 points of damage, while an LRM-5 lays a field that inflicts 5 points of damage. Group the damage from a Thunder minefield into 5-point clusters, with each cluster hitting a different location. Use the Front column of the hit location table, with BattleMechs taking damage using the BattleMech Kick Location Table.

A Thunder LRM cannot deliver a command-detonated or vibrabomb field.

Add together the damage of multiple Thunder minefields in the same hex, but the total Damage Value in a hex cannot be greater than 20.

The Thunder-FASCAM missile is identical to a standard LRM round, except that it costs twice as much as standard rounds. Thunder missiles do not gain any advantages from working with a missile targeting system (Artemis IV or Narc).

ULTRA AUTOCANNON

A player firing an Ultra autocannon must specify whether it is firing at a normal or double rate of fire. If firing normally, all standard combat rules apply. If firing at a double rate, use the following special rules.

An Ultra autocannon firing at a double rate generates twice as much heat and uses 2 shots of ammunition instead of 1. If the standard to-hit roll is successful, the player rolls on the "2" column of the Missile Hits Table to determine how many shots struck the target. Roll separately for a hit location for each attack; each hit inflicts the full amount of damage possible for an autocannon of the size used. Both shots must be fired at the same target.

If the firing unit is using a Clan targeting computer to aim at a specific hit location, and both shots hit, both shots hit the targeted location.

If a player is using the double rate of fire and rolls a result of 2 on his to-hit roll, the autocannon's arming circuitry fails, making the weapon useless until repaired after the battle. For repair purposes, the autocannon is considered to have suffered 1 critical hit.

Ultra autocannon follow all other restrictions and rules for standard autocannon of the same size.

XL ENGINES

Advances in fusion power-plant shielding have allowed engineers to retro-fit standard engines with new and lighter shielding materials, greatly reducing overall engine weight, but at the cost of compactness. The Clan version of the XL engine is much less bulky than those developed so far in the Inner Sphere.

Players may designate any fusion plant as being built with XL technology. Halve the normal engine weight (rounding up to the half-ton), and allocate additional engine critical slots to both the right and left torsos as shown in the XL Engines Table. XL engines may be equipped with either standard or double heat sinks.

Note that any 3 engine critical hits destroys a BattleMech regardless of whether the critical slots are in the side or center torso.
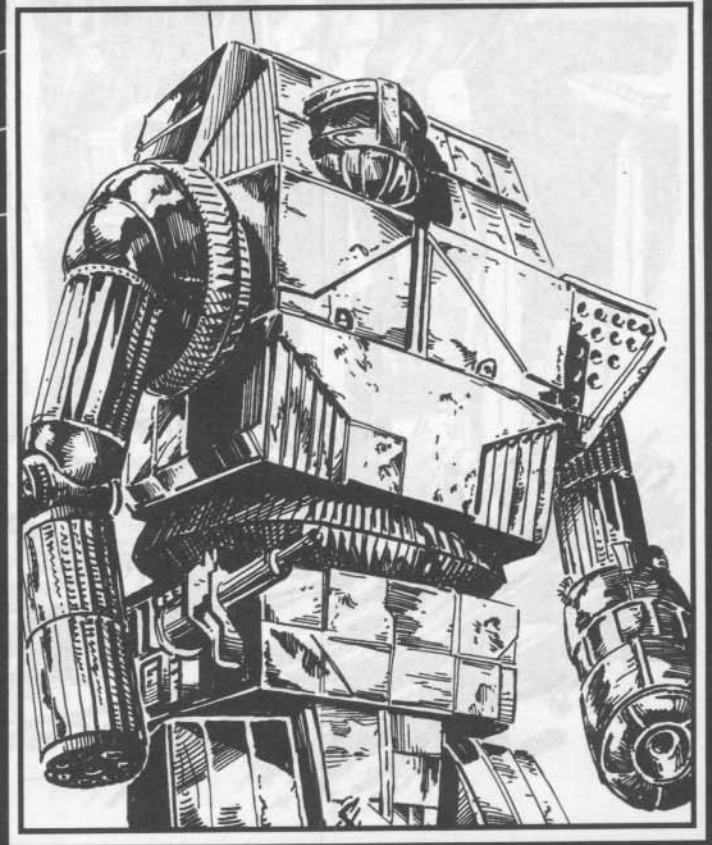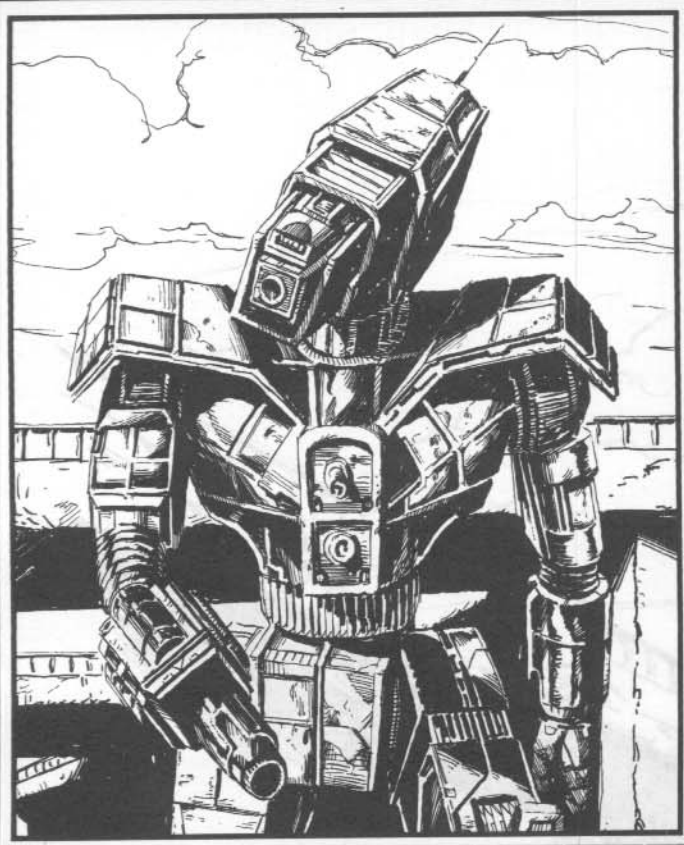
All BattleMechs and vehicles can use XL engines.

XL ENGINES TABLE

	Engine Tons	Critical Slots ('Mech)	Item Slots (Vehicle)
Clan	Half Standard	2 in LT, 2 in RT	1
Inner Sphere	Half Standard	3 in LT, 3 in RT	2

•INNER SPHERE 'MECHS•

TYPE: WLF-2 WOLFHOUND
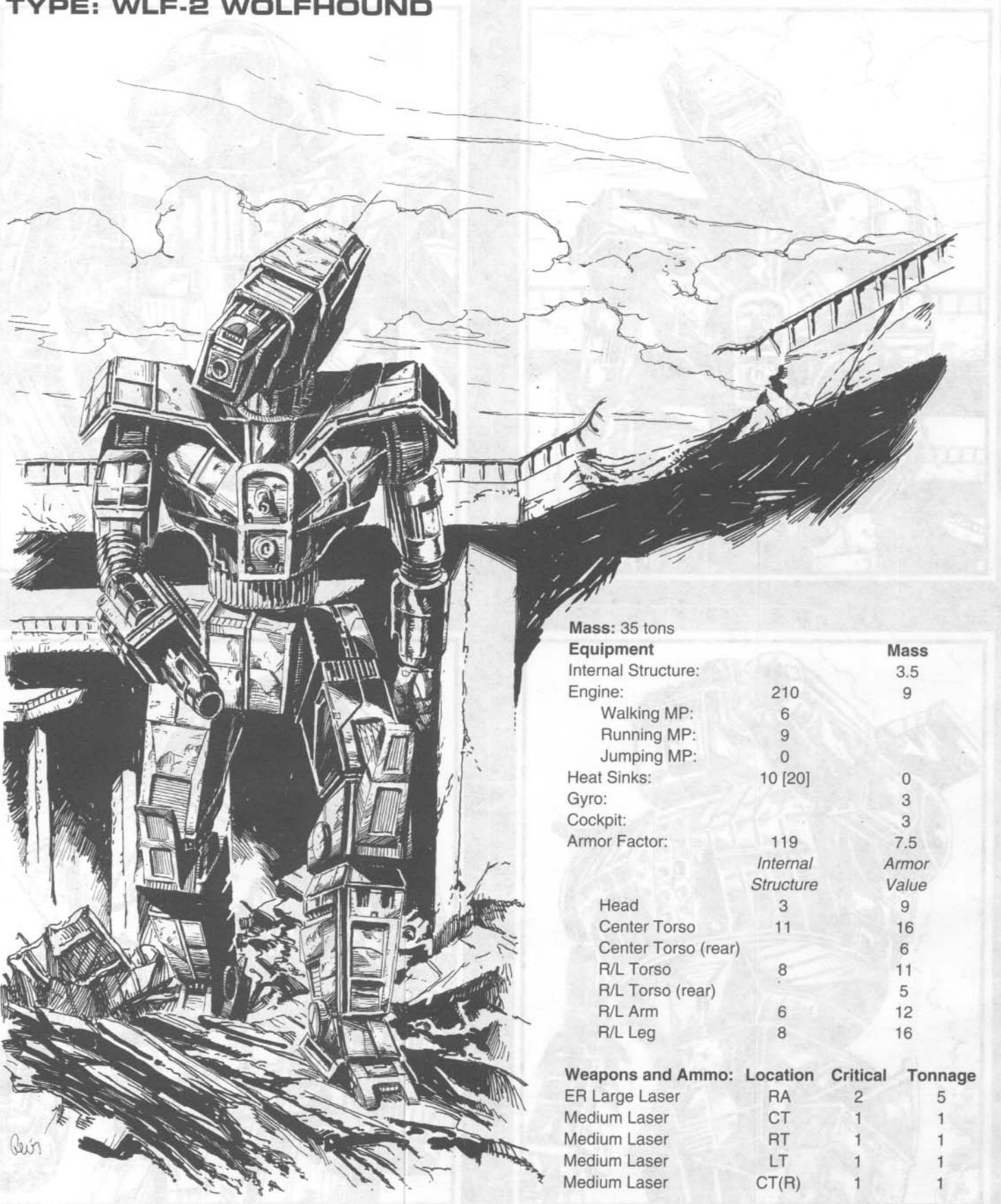
Mass: 35 tons

Equipment		Mass
Internal Structure:		3.5
Engine:	210	9
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	
Heat Sinks:	10 [20]	0
Gyro:		3
Cockpit:		3
Armor Factor:	119	7.5

	Internal Structure	Armor Value
Head	3	9
Center Torso	11	16
Center Torso (rear)		6
R/L Torso	8	11
R/L Torso (rear)		5
R/L Arm	6	12
R/L Leg	8	16

Weapons and Ammo:	Location	Critical	Tonnage
ER Large Laser	RA	2	5
Medium Laser	CT	1	1
Medium Laser	RT	1	1
Medium Laser	LT	1	1
Medium Laser	CT(R)	1	1

TYPE: CN9-D CENTURION

Mass: 50 tons

Equipment		Mass
Internal Structure:	Endo Steel	2.5
Engine:	300 XL	9.5
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	
Heat Sinks:	10	0
Gyro:		3
Cockpit:		3
Armor Factor:	136	8.5

	Internal Structure	Armor Value
Head	3	9
Center Torso	16	18
Center Torso (rear)		7
R/L Torso	12	13
R/L Torso (rear)		6
R/L Arm	8	16
R/L Leg	12	16

Weapons and Ammo:	Location	Critical	Tonnage
LB 10-X	RA	6	11
Ammo (LB 10-X) 20	RT	2	2
CASE	RT	1	0.5
LRM 10	LT	2	5
Ammo (LRM) 24	RT	2	2
Artemis IV FCS	LT	1	1
Medium Laser	CT	1	1
Medium Laser	CT(R)	1	1
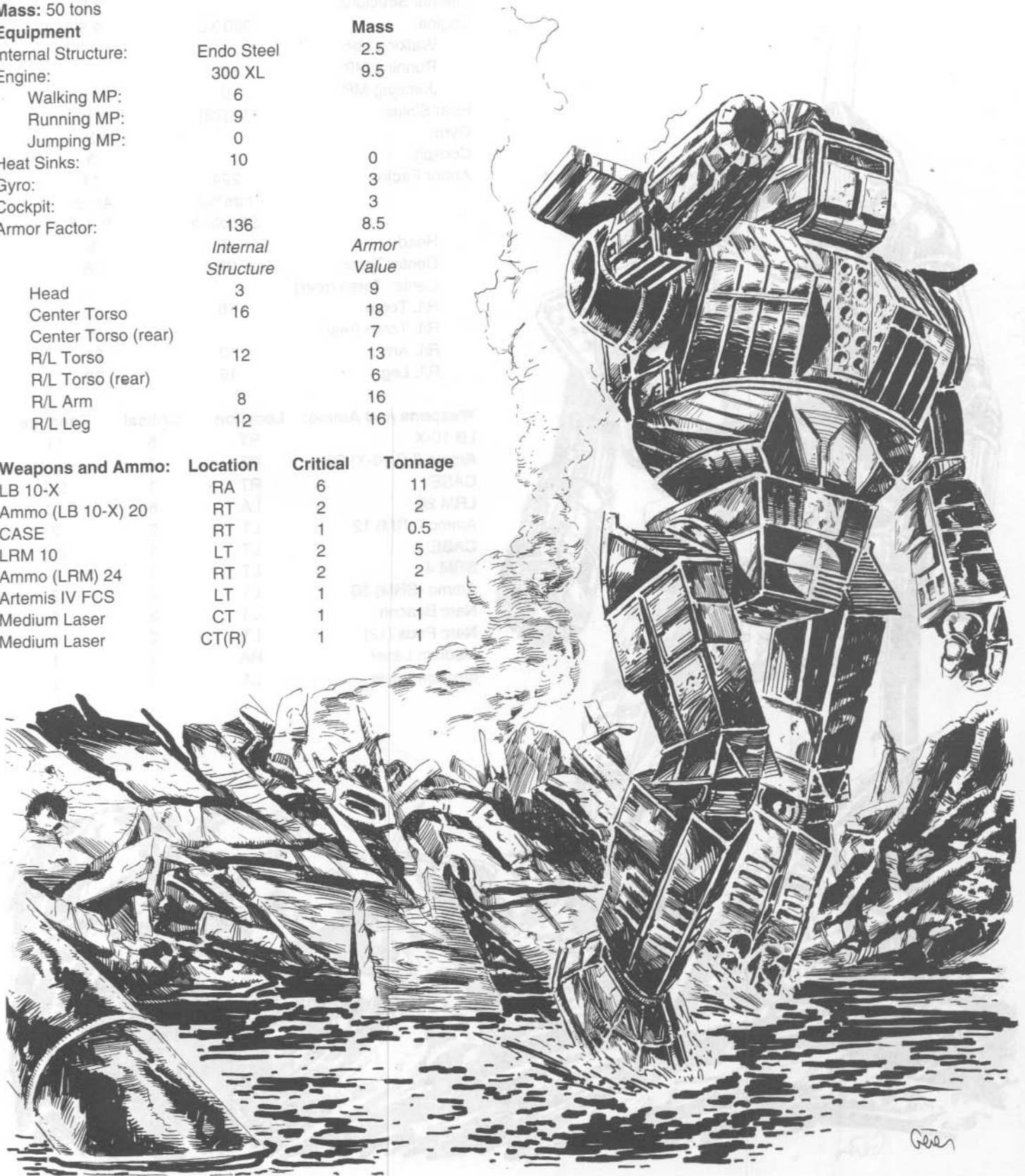
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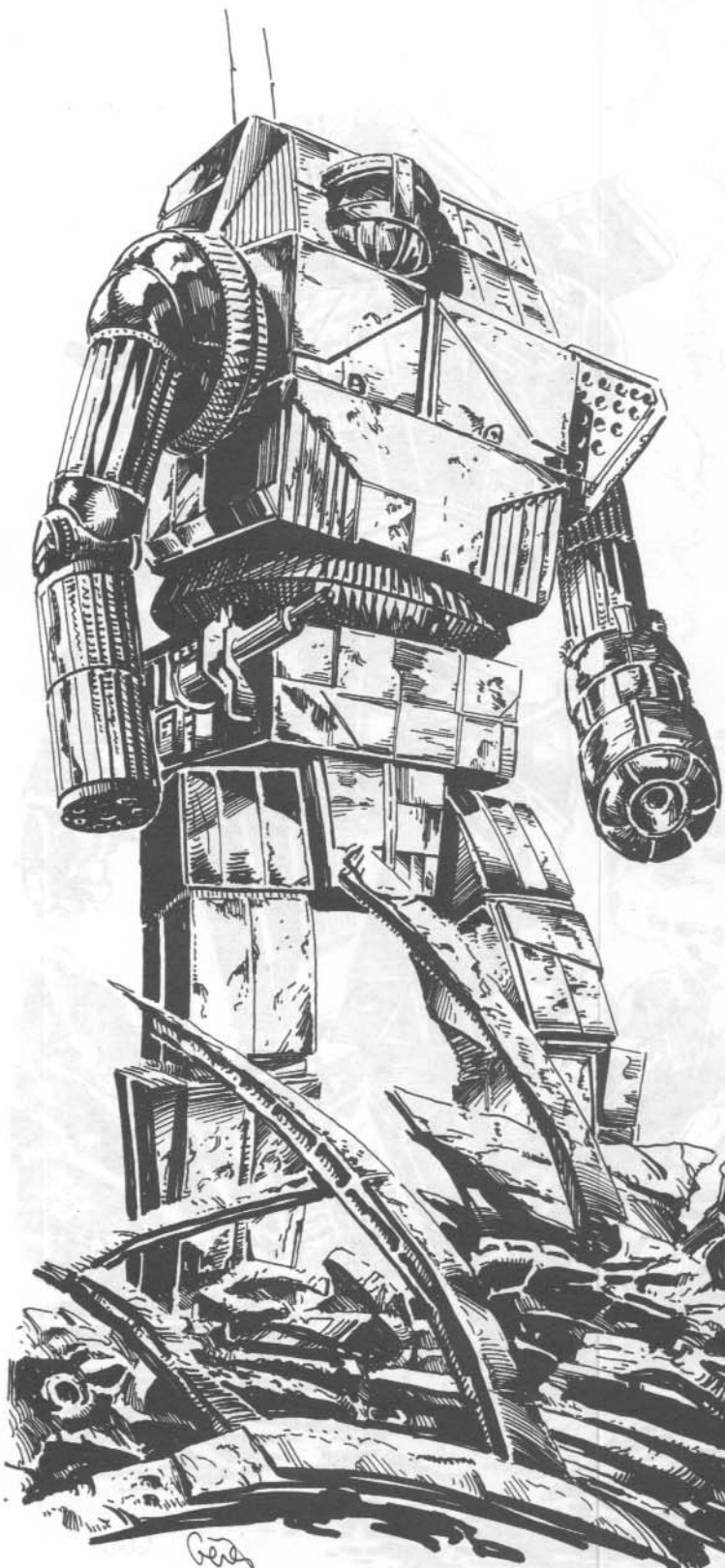
Mass: 75 tons

Equipment		Mass
Internal Structure:		7.5
Engine:	300 XL	9.5
Walking MP:	4	
Running MP:	6	
Jumping MP:	0	
Heat Sinks:	11 [22]	1
Gyro:		3
Cockpit:		3
Armor Factor:	224	14

	Internal Structure	Armor Value
Head	3	9
Center Torso	23	36
Center Torso (rear)		9
R/L Torso	16	22
R/L Torso (rear)		10
R/L Arm	12	21
R/L Leg	16	32

Weapons and Ammo:	Location	Critical	Tonnage
LB 10-X	RT	6	11
Ammo (LB 10-X) 20	RT	2	2
CASE	RT	1	0.5
LRM 20	LA	5	10
Ammo (LRM) 12	LT	2	2
CASE	LT	1	0.5
SRM 4	LT	1	1
Ammo (SRM) 50	LT	2	2
Narc Beacon	CT	2	3
Narc Pods (12)	LT	2	2
Medium Laser	RA	1	1
Medium Laser	LA	1	1

TYPE: VTR-9K VICTOR

Mass: 80 tons

Equipment		Mass
Internal Structure:	Endo Steel	4
Engine:	320	22.5
Walking MP:	4	
Running MP:	6	
Jumping MP:	4	
Heat Sinks:	15	5
Gyro:		4
Cockpit:		3
Armor Factor:	200	12.5
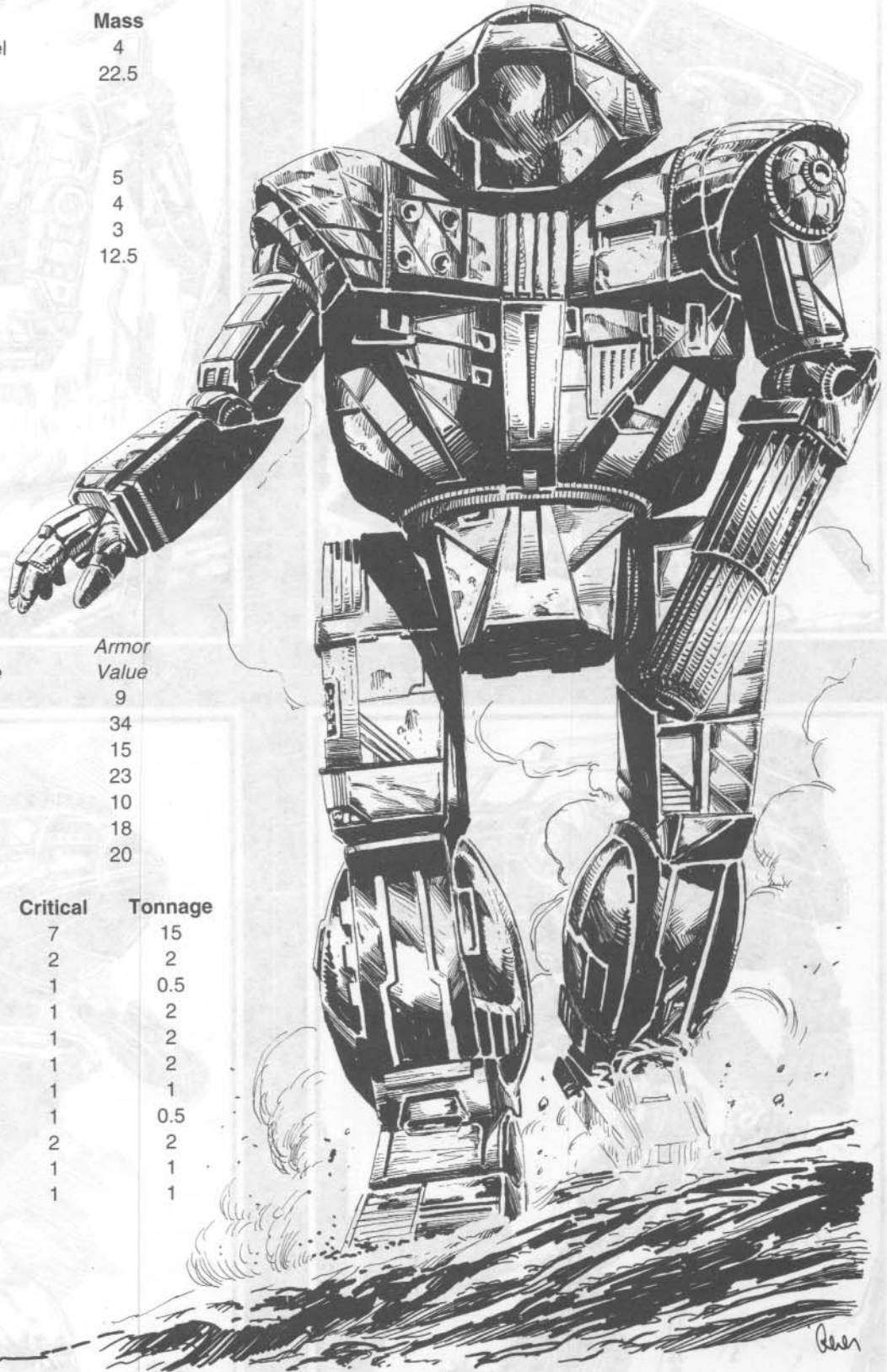
	Internal Structure	Armor Value
Head	3	9
Center Torso	25	34
Center Torso (rear)		15
R/L Torso	17	23
R/L Torso (rear)		10
R/L Arm	13	18
R/L Leg	17	20

Weapons and Ammo:	Location	Critical	Tonnage
Gauss Rifle	RA	7	15
Ammo (Gauss) 16	RT	2	2
CASE	RT	1	0.5
Medium Pulse Laser	LA	1	2
Medium Pulse Laser	LA	1	2
SRM 4	LT	1	2
Ammo (SRM) 25	LT	1	1
CASE	LT	1	0.5
Jump Jets	CT	2	2
Jump Jet	RL	1	1
Jump Jet	LL	1	1
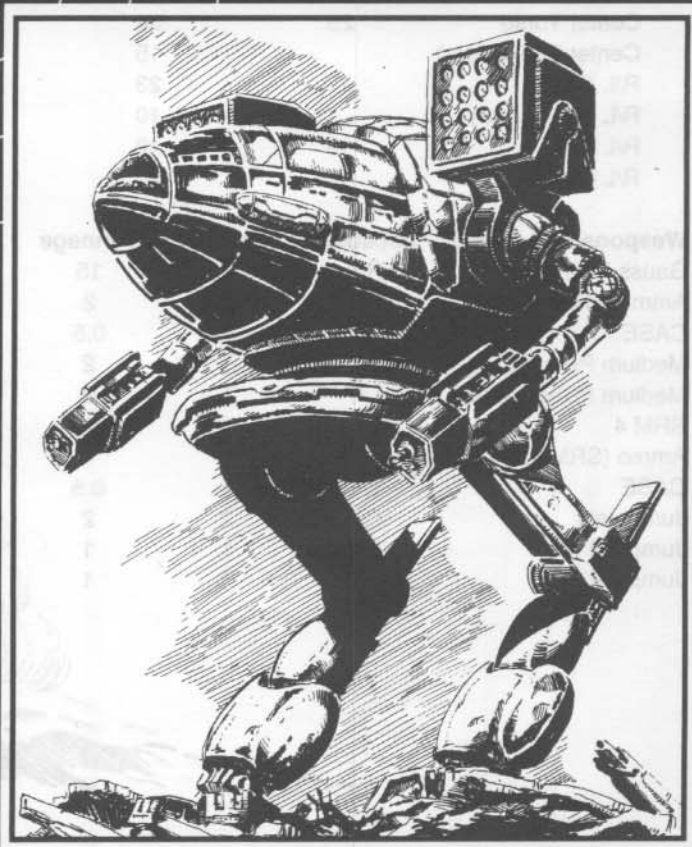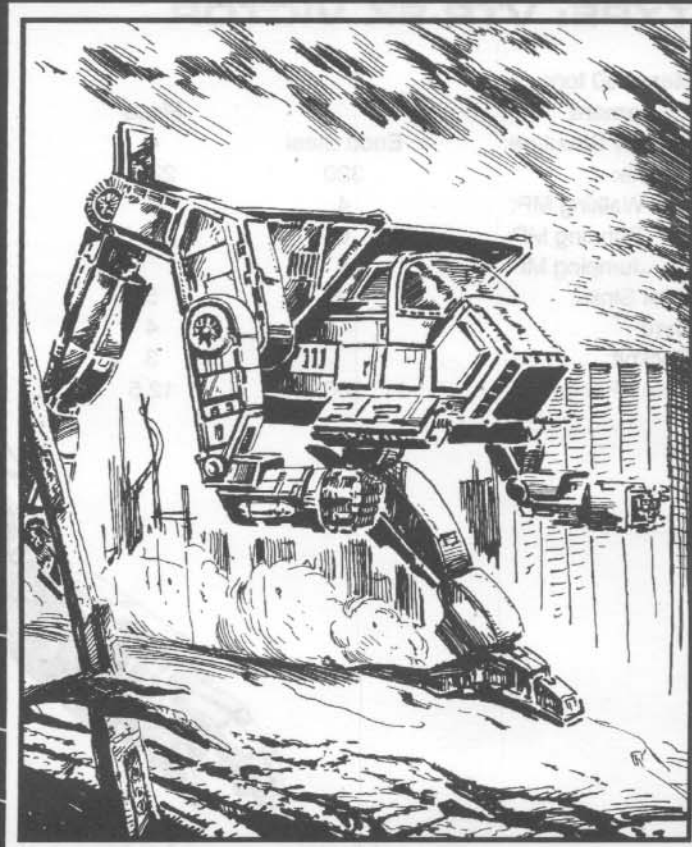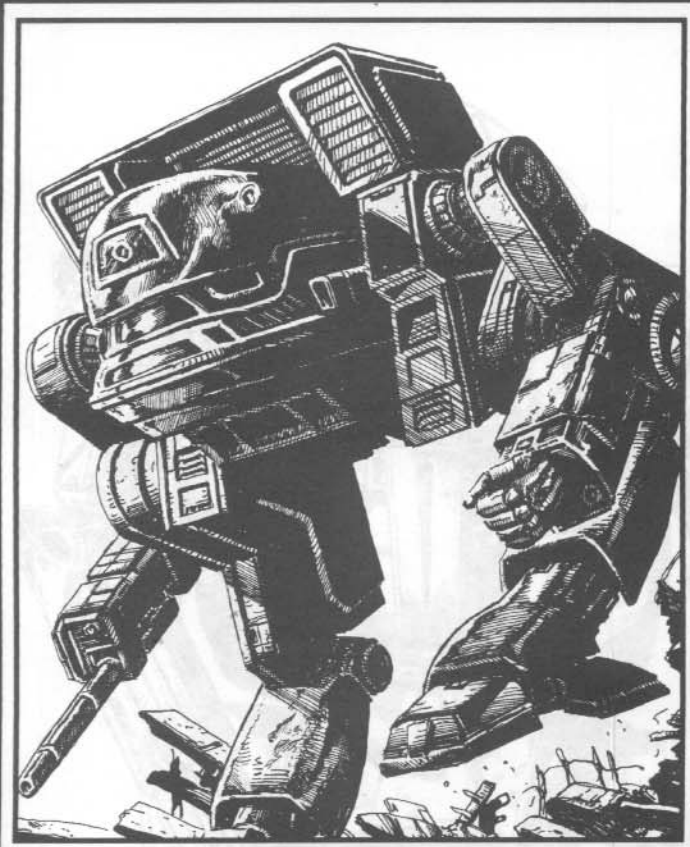
ULLER

Mass: 30 tons
Chassis: Endo Steel
Power Plant: 180 XL
Cruising Speed: 64.8 kph
Maximum Speed: 97.2 kph
Jump Jets: None
Jump Capacity: None
Armor: Ferro-Fibrous
Armament:
    16 tons of pod space available
Manufacturer: Unknown
Communications System: Unknown
Targeting and Tracking System: Unknown

Type: **Uller**

Equipment		Mass
Internal Structure:	Endo Steel	1.5
Engine:	180 XL	3.5
Walking MP:	6	
Running MP:	9	
Jumping MP:	0	
Heat Sinks:	10 [20]	0
Gyro:		2
Cockpit:		3
Armor Factor:	77	4

	Internal Structure	Armor Value
Head	3	9
Center Torso	10	9
Center Torso (rear)		5
R/L Torso	7	8
R/L Torso (rear)		4
R/L Arm	5	7
R/L Leg	7	8

Weight and Space Allocation

Location	Fixed	Spaces Remaining
Head	Ferro-Fibrous	0
Center Torso	Double Heat Sink	0
Right Torso	2 Engine	
	2 Ferro-Fibrous	
	3 Endo Steel	5
Left Torso	2 Engine	
	2 Ferro-Fibrous	
	2 Endo Steel	6
Right Arm	Ferro-Fibrous	
	Endo Steel	6
Left Arm	Ferro-Fibrous	
	Endo Steel	6
Right Leg	Double Heat Sink	0
Left Leg	Double Heat Sink	0

Primary Weapons Configuration

Weapons and Ammo	Location	Critical	Tonnage
ER Large Laser	LA	1	4
Small Pulse Laser	LA	1	1
Streak SRM 4	RA	1	2
Ammo (Streak) 25	RA	1	1
LB 5-X	RA	4	7
Ammo (AC) 20	RA	1	1
CASE	RA	0	0

BLACK HAWK

Mass: 50 tons
Chassis: Standard
Power Plant: 250 XL
Cruising Speed: 54 kph
Maximum Speed: 86.4 kph
Jump Jets: 5
    Jump Capacity: 150 meters
Armor: Standard
Armament:
    16 tons of pod space available
Manufacturer: Unknown
Communications System: Unknown
**Targeting and Tracking System:** Unknown

Type: **Black Hawk**

Equipment		Mass
Internal Structure:		5
Engine:	250 XL	6.5
Walking MP:	5	
Running MP:	8	
Jumping MP:	5	
Heat Sinks:	14 [28]	4
Gyro:		3
Cockpit:		3
Armor Factor:	160	10

	Internal Structure	Armor Value
Head	3	9
Center Torso	16	23
Center Torso (rear)		8
R/L Torso	16	15
R/L Torso (rear)	8	7
R/L Arm	8	16
R/L Leg	12	20

Weight and Space Allocation

Location	Fixed	Spaces Remaining
Head		1
Center Torso	Jump Jets	1
Right Torso	2 Engine	
	2 Double Heat Sinks	6
Left Torso	2 Engine	
	2 Double Heat Sinks	6
Right Arm		8
Left Arm		8
Right Leg	2 Jump Jets	0
Left Leg	2 Jump Jets	0

Primary Weapons Configuration

Weapons and Ammo	Location	Critical	Tonnage
ER Medium Laser	LA	1	1
ER Medium Laser	LA	1	1
ER Medium Laser	LA	1	1
ER Medium Laser	LA	1	1
ER Medium Laser	LA	1	1
ER Medium Laser	LA	1	1
Double Heat Sink (1)	LA	2	1
Double Heat Sink (1)	LT	2	1
ER Medium Laser	RA	1	1
ER Medium Laser	RA	1	1
ER Medium Laser	RA	1	1
ER Medium Laser	RA	1	1
ER Medium Laser	RA	1	1
ER Medium Laser	RA	1	1
Double Heat Sink (1)	RA	2	1
Double Heat Sink (1)	RT	2	1
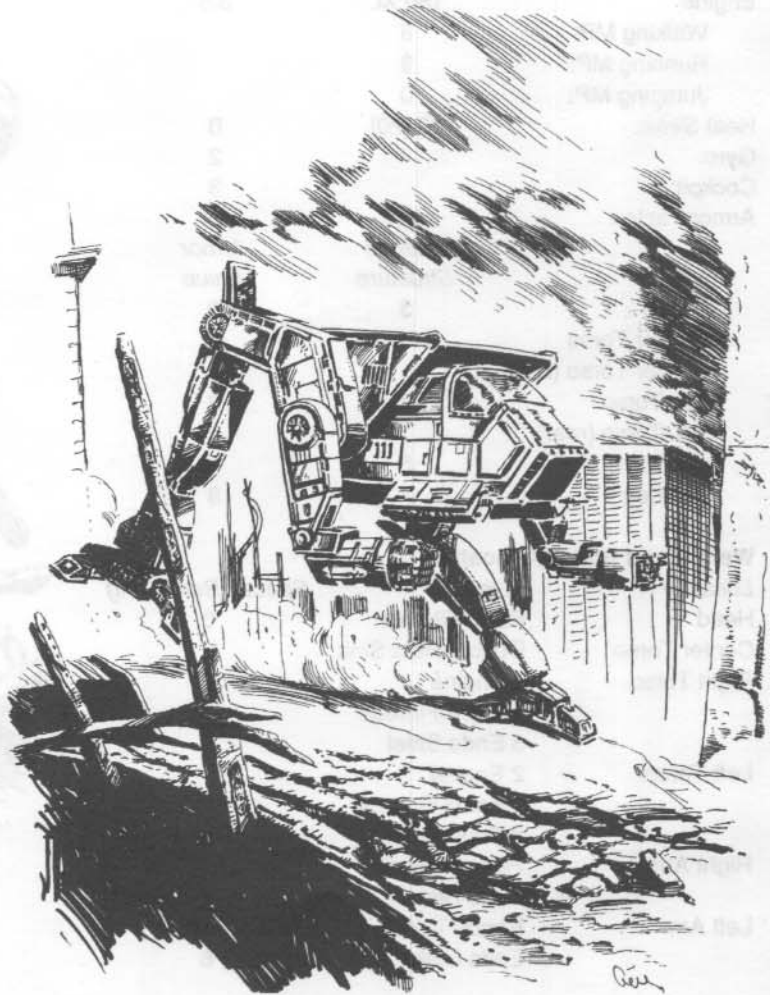
MAD CAT

Mass: 75 tons
Chassis: Endo Steel
Power Plant: 375 XL
Cruising Speed: 54 kph
Maximum Speed: 86.4 kph
Jump Jets: None
Jump Capacity: None
Armor: Ferro-Fibrous
Armament:
27.5 tons of pod space available
Manufacturer: Unknown
Communications System: Unknown
**Targeting and Tracking System:** Unknown

Type: Mad Cat

Equipment		Mass
Internal Structure:	Endo Steel	4
Engine:	375 XL	19.5
Walking MP:	5	
Running MP:	8	
Jumping MP:	0	
Heat Sinks:	15 [30]	5
Gyro:		4
Cockpit:		3
Armor Factor:	230	12

	Internal Structure	Armor Value
Head	3	9
Center Torso	23	36
Center Torso (rear)		9
R/L Torso	16	25
R/L Torso (rear)		7
R/L Arm	12	24
R/L Leg	16	32

Weight and Space Allocation

Location	Fixed	Spaces Remaining
Head	Ferro-Fibrous	0
Center Torso	Endo Steel	1
Right Torso	2 Engine	
	2 Ferro-Fibrous	
	Endo Steel	7
Left Torso	2 Engine	
	2 Ferro-Fibrous	
	Endo Steel	7
Right Arm	Ferro-Fibrous	7
Left Arm	Ferro-Fibrous	7
Right Leg	2 Endo Steel	0
Left Leg	2 Endo Steel	0

Primary Weapons Configuration

Weapons and Ammo	Location	Critical	Tonnage
Machine Gun	CT	1	.25
ER Large Laser	LA	1	4
ER Medium Laser	LA	1	1
Double Heat Sink (1)	LA	2	1
Medium Pulse Laser	LT	1	2
LRM 20	LT	4	5
Ammo (LRM) 6	LT	1	1
CASE	LT	0	0
ER Large Laser	RA	1	4
ER Medium Laser	RA	1	1
Double Heat Sink (1)	RA	2	1
Machine Gun	RT	1	.25
Ammo (MG) 200	RT	1	1
LRM 20	RT	4	5
Ammo (LRM) 6	RT	1	1
CASE	RT	0	0
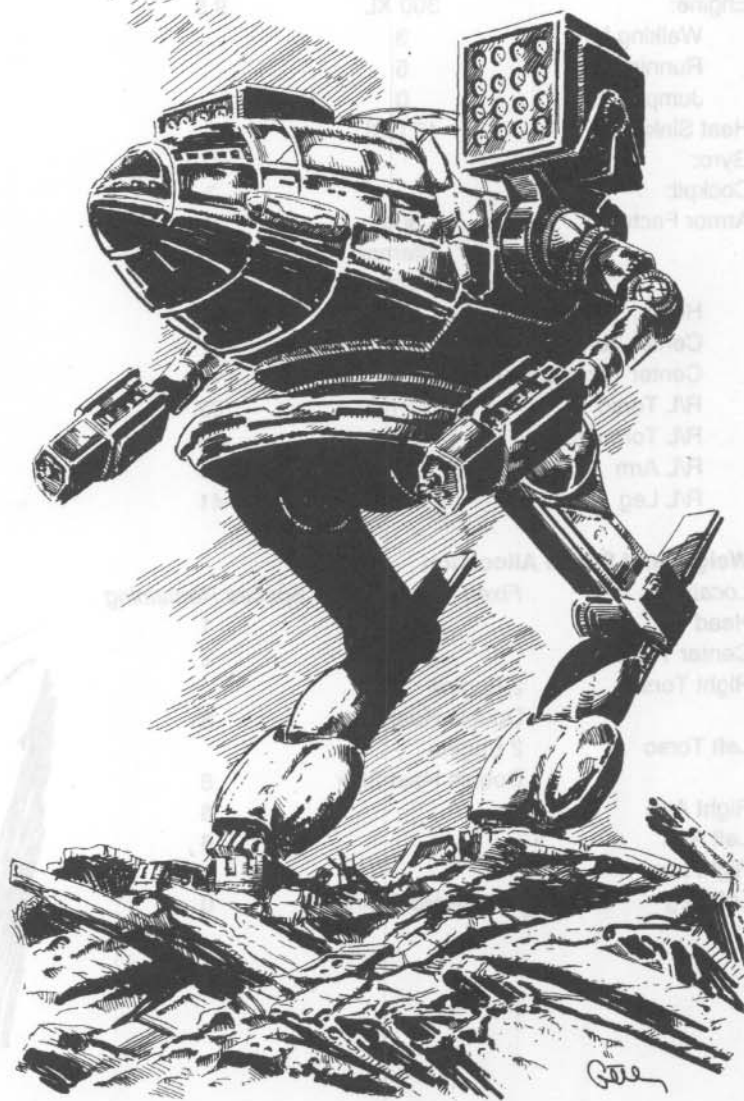
DAISHI

Mass: 100 tons
Chassis: Standard
Power Plant: 300 XL
Cruising Speed: 32.4 kph
Maximum Speed: 54 kph
Jump Jets: None
   Jump Capacity: None
Armor: Standard
Armament:
   50.5 tons of pod space available
Manufacturer: Unknown
Communications System: Unknown
**Targeting and Tracking System:** Unknown

Type: **Daishi**

Equipment		Mass
Internal Structure:		10
Engine:	300 XL	9.5
Walking MP:	3	
Running MP:	5	
Jumping MP:	0	
Heat Sinks:	15 [30]	5
Gyro:		3
Cockpit:		3
Armor Factor:	304	19
	Internal	Armor
	Structure	Value
Head	3	9
Center Torso	31	47
Center Torso (rear)		14
R/L Torso	21	32
R/L Torso (rear)		10
R/L Arm	17	34
R/L Leg	21	41

Weight and Space Allocation

Location	Fixed	Spaces Remaining
Head		1
Center Torso		2
Right Torso	2 Engine	
	Double Heat Sink	8
Left Torso	2 Engine	
	Double Heat Sink	8
Right Arm		8
Left Arm		8
Right Leg		2
Left Leg	Double Heat Sink	0

Primary Weapons Configuration

Weapons and Ammo	Location	Critical	Tonnage
Double Heat Sink (1)	CT	2	1
ER Large Laser	LA	1	4
ER Large Laser	LA	1	4
Medium Pulse Laser	LA	1	2
Medium Pulse Laser	LA	1	2
Ultra-5 AC	LA	3	7
Ammo (AC) 20	LA	1	1
CASE	LA	0	0
LRM 10	LT	1	2.5
Ammo (LRM) 12	LT	1	1
Double Heat Sinks (3)	LT	6	3
CASE	LT	0	0
ER Large Laser	RA	1	4
ER Large Laser	RA	1	4
Medium Pulse Laser	RA	1	2
Medium Pulse Laser	RA	1	2
Ultra-5 AC	RA	3	7
Ammo (AC) 20	RA	1	1
CASE	RA	0	0
Double Heat Sinks (3)	RT	6	3
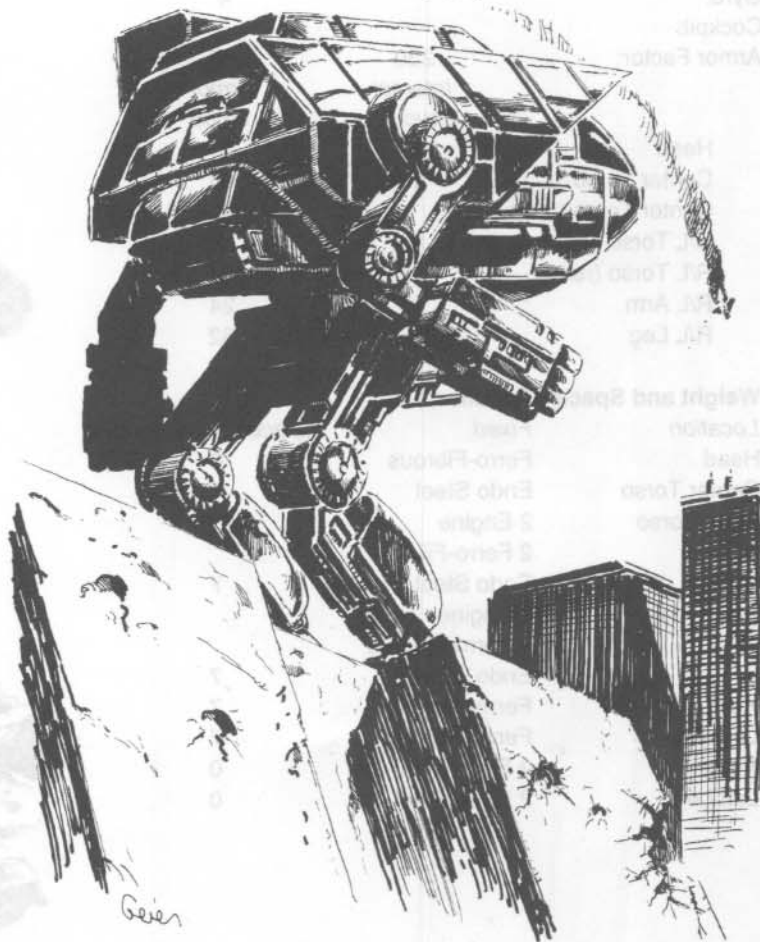
•INNER SPHERE VEHICLES•
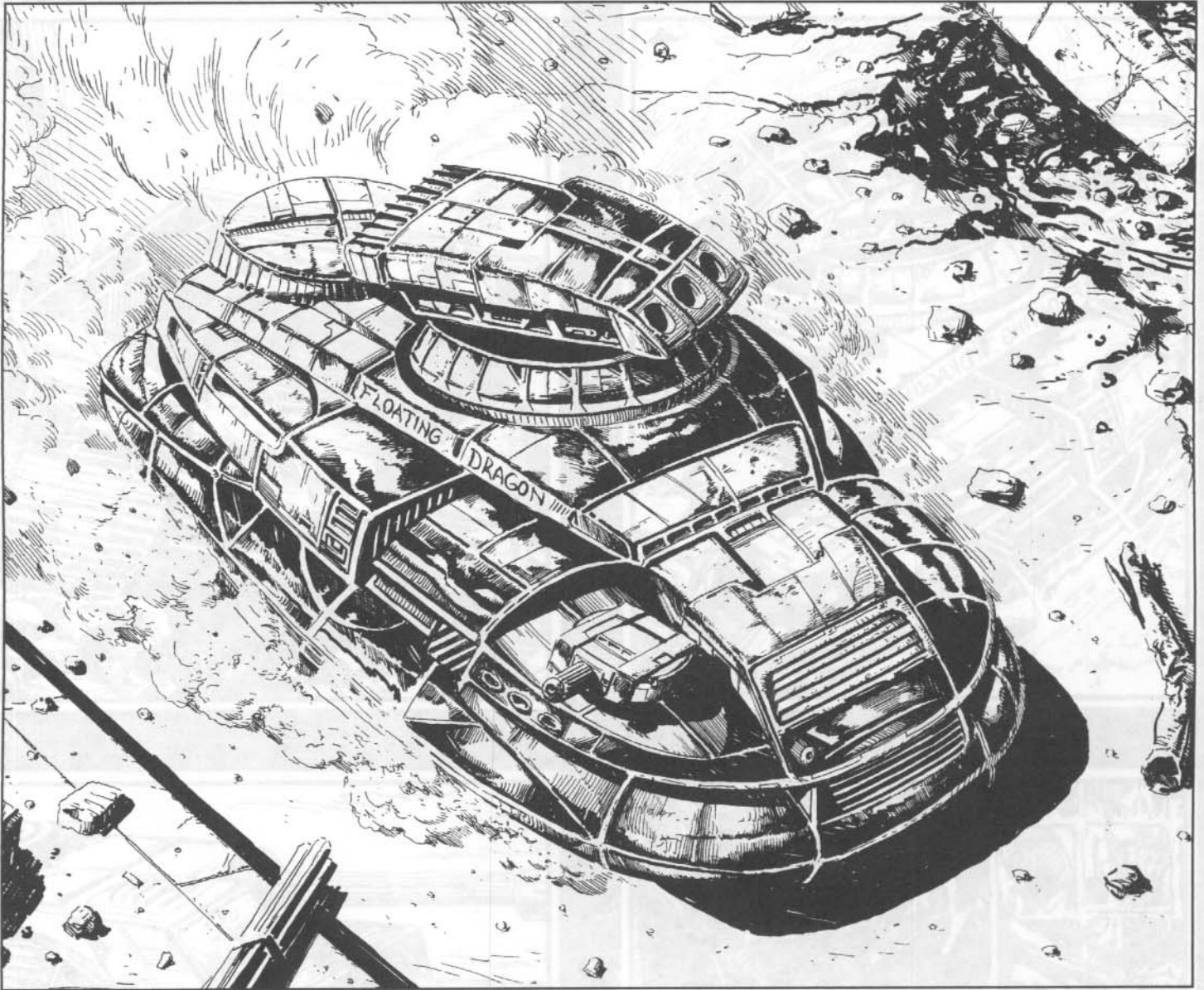
TYPE: CONDOR

Movement Type: Hover
Mass: 50 tons

Equipment		Mass
Cruise Speed:		8
Flank Speed:		12
Engine:	165 I.C.E	12
Control:		2.5
Lift Equipment:		5
Power Amplifier:		.2
Heat Sinks:	6	6
Internal Structure:		5
Turret:		1

Armor Factor:	96	6
	Armor	
	Points	
Front	30	
Lt./Rt. Side	15/15	
Rear	14	
Turret	22	

Weapons and Ammo	Location	
Medium Laser	Turret	1
Medium Laser	Turret	1
AC/5	Turret	8
Ammo (AC/5) 20	Body	1
Machine Gun	Front	.5
Ammo (MG) 100	Body	.5
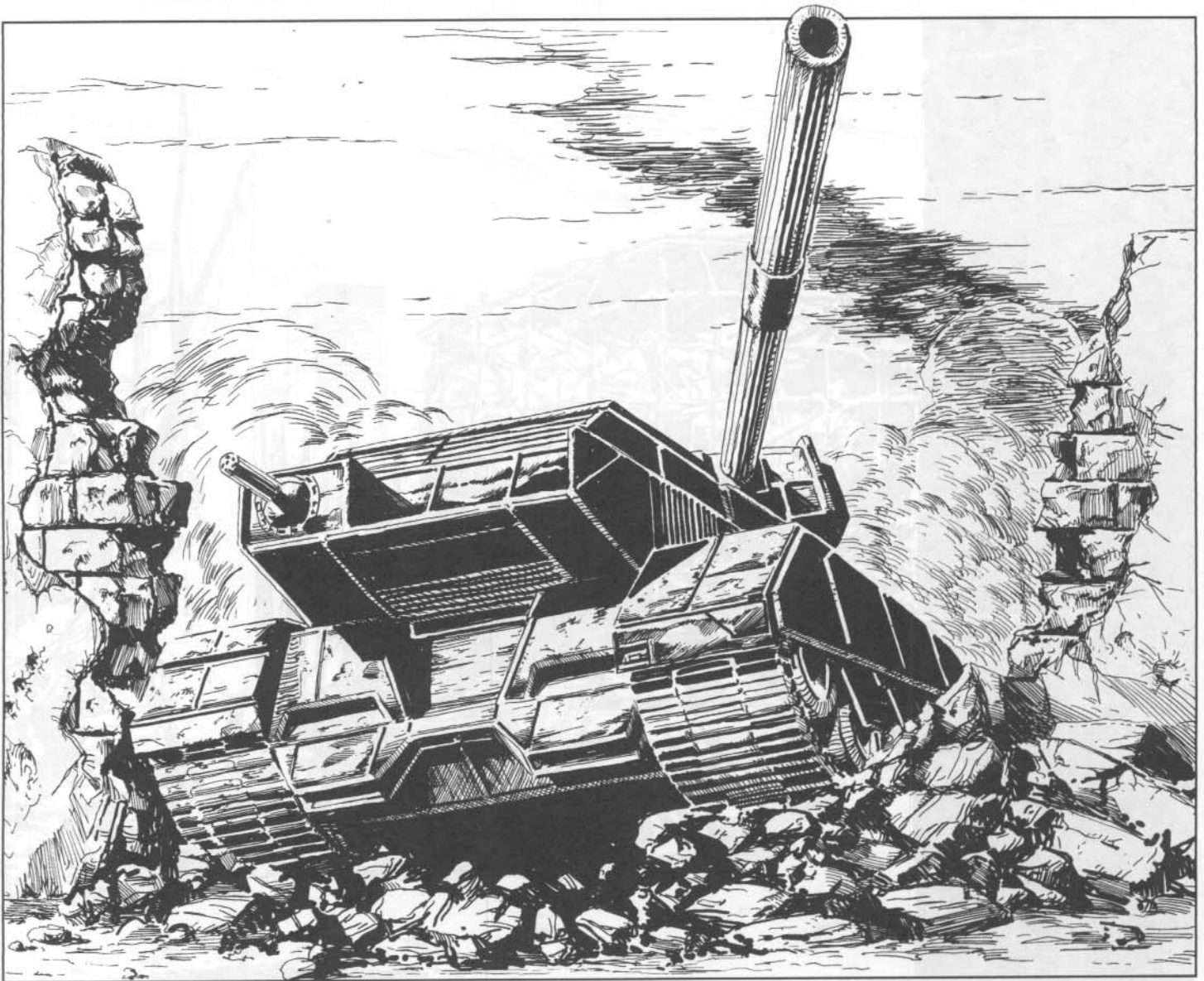
TYPE: VEDETTE

Movement Type: Tracked
Mass: 50 tons

Equipment		Mass
Cruise Speed:		5
Flank Speed:		8
Engine:	250 I.C.E.	25
Control:		2.5
Lift Equipment:		0
Power Amplifier:		0
Heat Sinks:	0	0
Internal Structure:		5
Turret:		1

Armor Factor:	96	6
Armor Points		
Front	20	
Lt./Rt. Side	18/18	
Rear	20	
Turret	20	

Weapons and Ammo	Location
AC/5	Turret
Ammo (AC/5) 20	Body
Machine Gun	Front
Ammo (MG)	Body

TYPE: HETZER

Movement Type: Wheeled
Mass: 40 tons

Equipment		Mass
Cruise Speed:		4
Flank Speed:		6
Engine:	140 I.C.E.	10
Control:		2
Lift Equipment:		0
Power Amplifier:		0
Heat Sinks:	0	0
Internal Structure:		4
Turret:		—

Armor Factor:	96	6
	Armor	
	Points	
Front	30	
Lt./Rt. Side	22/22	
Rear	22	
Turret	—	

Weapons and Ammo	Location	
AC/20	Front	14
Ammo (AC/20) 20	Body	4
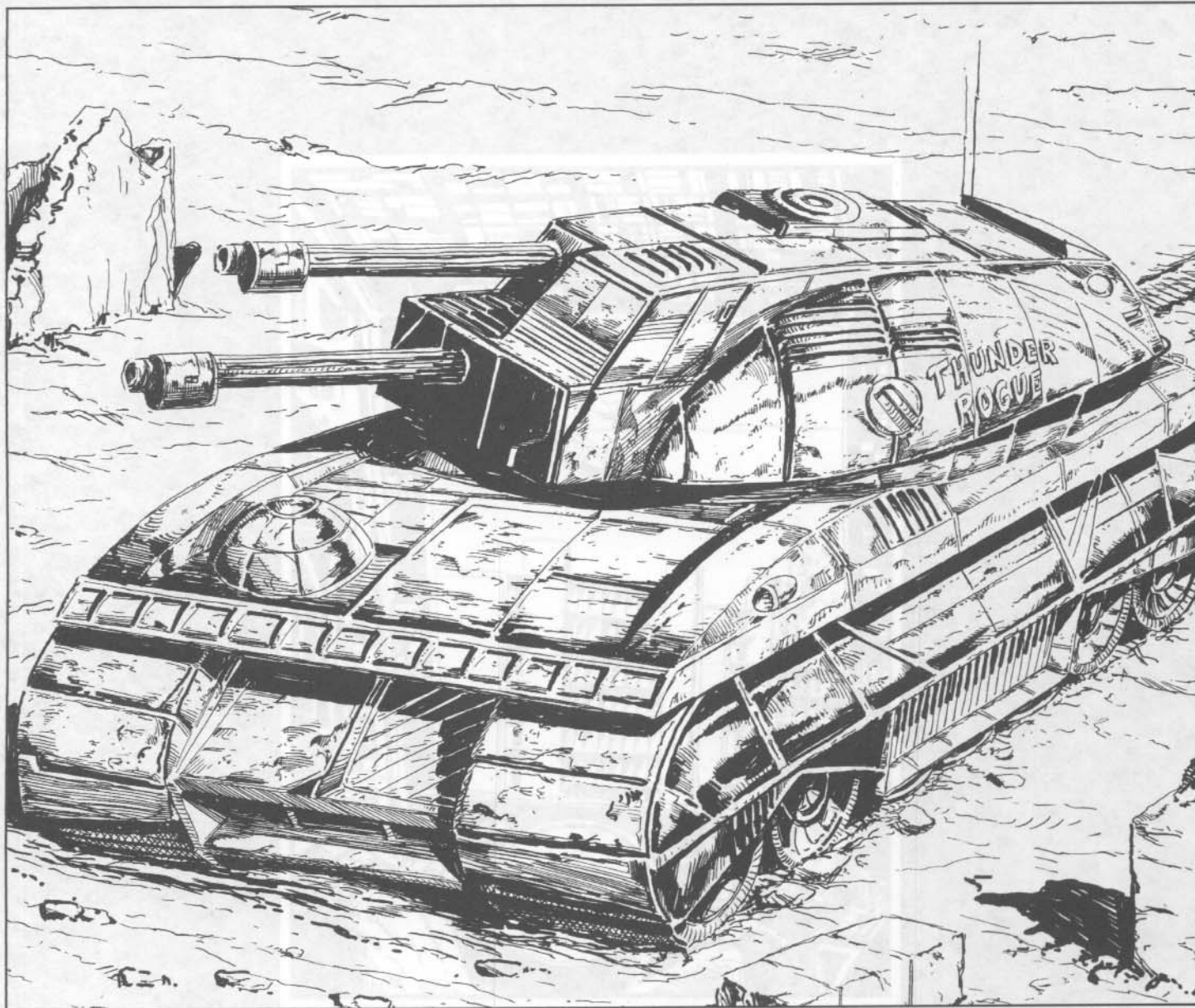
TYPE: DEMOLISHER

Movement Type: Tracked
Mass: 80 tons

Equipment		Mass
Cruise Speed:		3
Flank Speed:		5
Engine:	240 I.C.E.	23
Control:		4
Lift Equipment:		0
Power Amplifier:		0
Heat Sinks:	0	0
Internal Structure:		8
Turret:		3

Armor Factor:	160	10
	Armor	
	Points	
Front	40	
Lt./Rt. Side	30/30	
Rear	20	
Turret	40	

Weapons and Ammo	Location	
AC/20	Turret	14
AC/20	Turret	14
Ammo (AC/20) 20	Body	4