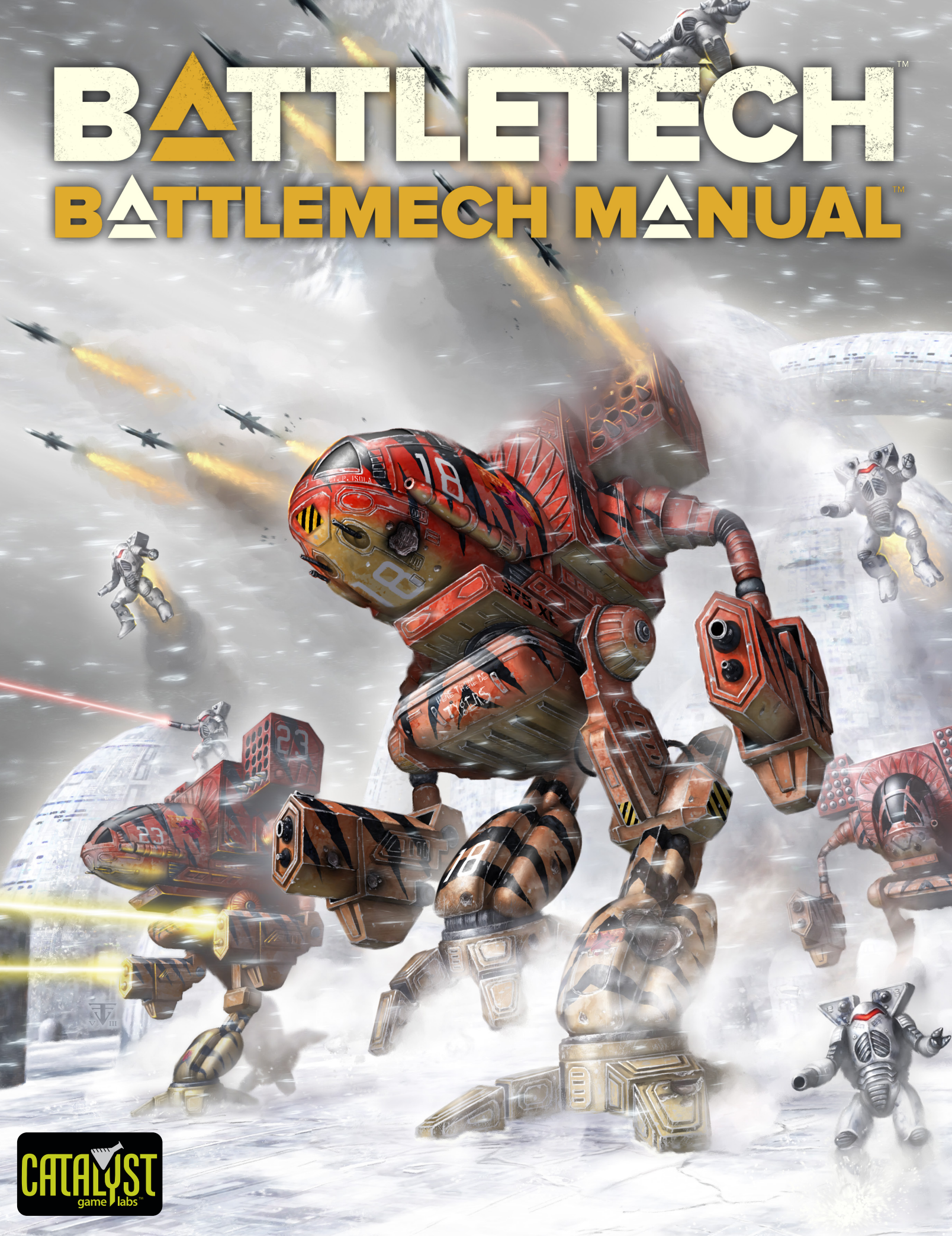
BATTLETECH™

BATTLEMECH MANUAL™



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YOUR AVATAR AWAITS!

- *Standing from seven to sixteen meters tall, and weighing from twenty to one hundred tons*
- *Powered by an armored and shielded fusion reactor*
- *Skeleton of honeycombed, foamed aluminum core wrapped with stressed silicon carbide monofilament and sheathed by a rigid, titanium-steel shell*
- *Locomotion generated via bundles of polyacetylene-fiber myomer muscles*
- *Protected by aligned-crystal steel over a layer of boron nitride impregnated with diamond monofilaments*
- *Mounting a swath of powerful weapons from charged particle beams to lasers, missiles to rapid-fire autocannons*
- *All at the command of the noble elite, the MechWarriors*

The modern BattleMech is the end result of more than three thousand years of battlefield technology development. Combining awesome destructive power and unparalleled maneuverability, the BattleMech is perhaps the most complex machine ever produced. The undisputed master of thirty-first century warfare, the BattleMech seems destined to reign supreme for centuries to come.

—Excerpts from a promotional pamphlet originally distributed by Defiance Industries of Hesperus, Lyran Commonwealth, 3007

Using the most up-to-date rules text, the *BattleMech Manual* has been designed from the ground up to cater to the *BattleTech* player wanting to engage in an all-'Mech battle. Includes a variety of optional rules, terrain and more.

Welcome to the most table-usage-friendly *BattleTech* rulebook ever published!

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BATTLEMECH MANUAL

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Thanks to everyone online that provided initial *BattleMech Manual* suggestions:

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Special Thanks From Keith Hann
To Ray, for a phone call out of the blue that got this ball rolling, and for making this baby look beautiful; to Randall, for trusting some random freelancer to run terrible experiments on his baby; to CA, Muninn, and Liao for invaluable help and fun IRC times; to c_gee, for a great chapter idea and putting some random stranger up; and lastly, to the helpful General and his staff, who lived up to their legendary reputation for polite, civil discourse and provided excellent feedback while piecing together this book.

Special Thanks From Randall Bills
This is the fourth *BattleTech* rulebook I've had the honor of working on across almost twenty years. It's because of you, the amazing community of *BattleTech* players, that this wonderful universe is still growing and experiencing a renaissance in so many ways. Thank you for the privilege of being a part of this brilliant experience.

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Printed in USA.

Published by Catalyst Game Labs,
an imprint of InMediaRes Productions, LLC.
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The following people have been involved in the creation and development of BattleTech *rules, either by writing material that was assimilated into the main body of the rules, serving as the* BattleTech *line developer in the past, or otherwise contributing to the game in a major way.*

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Acknowledgements
To the core group of people who, to one extent or another, have significantly contributed to keeping *BattleTech* not simply alive these last five years, but thriving once more: Ray Arrastia, Herb Beas, Loren Coleman, Warner Doles, David M. Stansel-Garner, Diane Piron-Gelman, Jason Hardy, Chris Hartford, Jason Knight, Chris Lewis, David McCulloch, Ben Rome, Matt Plog, Paul Sjardijn, Peter Smith, Scott Taylor, Christoffer Trossen, Øystein Tvedten, and Jason Vargas.

Playtesters/Proofers/Fact Checkers
The playtesters for any game line are a necessary component in the creation of a solid product. However, when tackling something on the scope of *Total Warfare*, which involves the melding of twenty years worth of rules into a unified whole that far exceeds it constitute parts (particular when set against the millions-of-words background of the vast scale of *BattleTech* history and continuity) their roles are not only greatly expanded, but become vital. A testament to the strength of the *BattleTech* community, their dedication knew no bounds: the product is far superior due to their significant contributions.

Joel Agee, Brian Alter, Ray Arrastia, Ron Barter, Terren "Tel Hazen" Bruce, Rick Casarez, Doug Davidhizar, Brent Dill, Benjamin Disher, John "Quentil" Dzieniszewski, Dave Fanjoy, David Ferguson, Thomas Ferrell, Bruce Ford, Eugen Fournes, John "AngelRipper" Frideres, Aaron "Bear" Gregory, Eric Hawkins, Glenn Hopkins, Ken Horner, John "Bleusman" Hudson, Darryl Hunt, Stephen "Blayde" King, Rod Klatt, Nadine Klatt, Michael "Konan" Koning, Peter LaCasse, Edward "Tenaka Furey" Lafferty, Mark Maestas, Eberhard "Rote Baron" von Massenbach, Brian McAuliffe, Tim McAuliffe, Mike Miller, Jeffrey "Fej" Morgan, Darrell "FlailingDeath" Myers, Lou "Nukeloader" Myers, Andrew Norris, Mike Pfister, Max "Medron Pryde" Prohaska, Ben Rome, Richard Sardiñas, Christopher K. Searls, Chris Sheldon, Alyson Sjardijn, Paul Sjardijn, Scott Stansbury, Joel "Septicemia" Steverson, Rob Strathmann, Terry Sweetapple, Dr. Geoff "97jedi" Swift, Lee Thoms, Roland Thigpen, Todd "BlueWeasel" Thrash, Andrew Timson, John Unchelenko, Chris Wheeler, Paul Wolf, Patrick Wynne; Gravedigger Arms Limited: James Humpula, Darlene Morgan, Aaron "Gravedigger" Pollyea, Jeff Skidmore, Charles "IronSphinx" Wilson; The Singapore Longshoremen: Jason Chodara, Leonard Conklin, Dan Eastwood, Tom Evans, Rick "Rick Steele" Remmer, Chris "Chungalo" Smith, Sam "Wasp" Snell, Jeremy Zuvich; Seacoast BattleTech Society: Debra Atkinson, David Baughman, James Bernard, Josh Carter, Alex Ellis, Korac MacArthur, Clayton Poland; Steel City MechWarriors: Rich Cencarik, Rich Darr, Brian Golightly, Dave Lang, Drew Martin.

And to all the players that fought through the endless delays to get on-line questions answered over the years; your questions generated numerous FAQs off of which much clarification came about in this book.

INTRODUCTION

—Excerpts from a promotional pamphlet originally distributed by Defiance Industries of Hesperus, Lyran Commonwealth, 3007

- *Standing from seven to sixteen meters tall, and weighing from twenty to one hundred tons*
- *Powered by an armored and shielded fusion reactor*
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The *BattleMech Manual* has been designed from the ground up to cater to the *BattleTech* player wishing to participate in an all-'Mech engagement. Using the most up-to-date rules text, the *BattleMech Manual* focuses on presenting the complete standard rules for BattleMechs in as clean and concise a manner as possible.

VS. TOTAL WARFARE

The *BattleMech Manual* is an alternate presentation of the *BattleTech* rules as seen in *Total Warfare*, not a new edition. Most of the rules as published in both books are the same, though the *BattleMech Manual* rewords many of them for clarity or reduced word count. It also incorporates all relevant errata as of its publishing date.

Additionally, the *Manual* adds rules and items of equipment from sources other than *Total Warfare*, such as combat-dropping BattleMechs and expanded terrain options. As many players regularly use such rules, the *Manual* includes them to provide a one-stop BattleMech play experience. However, some of these rules appear in a simplified or stripped-down form compared to their original form, in the interest of presenting a taste of the wider *BattleTech* ruleset but not overwhelming the reader with complexity.

OPTIONAL RULES

Throughout the text, you will find rules labeled "**(Optional)**". These are variants that expand upon or slightly twist the existing rules to allow for a potentially more interesting game. As their label indicates, these rules are entirely optional: the use of each must be clearly detailed and agreed on by all players prior to setting up the game.

BEYOND THE BATTLEMECH MANUAL

While the *BattleMech Manual* is self-contained and there's literally hundreds of hours of enjoyment within its pages, there is an epic body of additional weapons, equipment and rules that cover a huge swath of the *BattleTech* experience: from vehicles to infantry to aerospace elements, much less a plethora of additional optional rules for expanding your BattleMech experience.

For many more optional rules to expand your *BattleTech* games, see *Tactical Operations* (*TO*), *Strategic Operations* (*SO*), *Interstellar Operations* (*IO*), *Campaign Operations* (*CO*), and *Alpha Strike* (*AS*).

GAME TERMS

The following terms describe important concepts used in the *BattleTech* rules.

'MECH

This is the common abbreviation for "BattleMech", and will be used throughout the text. Unless specified otherwise, this term refers to both biped and four-legged BattleMechs.

FOUR-LEGGED 'MECH

Often simply called "quads," rather than having two arms and two legs, these 'Mechs instead have four legs. Notable examples are the *Scorpion*, *Goliath*, and *Tarantula* 'Mechs.

STRATEGIC RULES

The players will find numerous "Strategic" sidebars in the pages of the *BattleMech Manual*. These are all optional rules. However, these are set-off in a sidebar style because there's a distinct difference. Unlike the rest of the optional rules that are concerned with the modification of specific mechanics within the game—a little more movement, or a different way for a BattleMech to stand up—these concentrate on different ways of running the game as a whole. Whether they're provided to help speed up game play or because it's an option that a large part of the community regularly uses: they're ultimately about ways to make the *BattleTech* gaming experience better.

MOVEMENT POINTS

Commonly abbreviated as "MP," the number of Movement Points a 'Mech generates in a turn is based on the movement mode the 'Mech chooses that turn. A 'Mech spends Movement Points in a Movement Phase based on how often it changes its facing, the terrain in each hex traveled through, and other factors (see *Movement*, p. 13).

TARGET

A target is anything a 'Mech may attack, typically an enemy 'Mech. A friendly 'Mech can never be the target of a direct attack, but may be damaged through friendly area-effect attacks. See *What Is A Target?* on page 22.

TARGET NUMBER

Any action requiring a dice roll has a Target Number, representing the action's difficulty. If the roll result equals or exceeds this Target Number, the action succeeds. If the result is less than the Target Number, the action fails. Base Target Numbers for each action are specified in the rules sections for that action. If the Target Number is 2 or less, the action automatically succeeds; if 13 or higher, it automatically fails.

MODIFIED TARGET NUMBER

A Target Number may be modified up (making the task more difficult) or down (less difficult), based on various circumstances such as terrain, range, and so on. The final number against which a player makes a dice roll is called the modified Target Number. For example, weapon attacks use the MechWarrior's Gunnery Skill as the base Target Number, which is then modified by factors such as how far the attacker and defender moved.

ATTACKER MOVEMENT MODIFIER

This modifier is applied when a 'Mech makes an attack during the same turn in which it moved, increasing the Target Number and thus making a successful attack more difficult. The exact modifier depends on the movement mode the attacker used that turn (see *Attacker Movement Modifier*, p. 25).

TARGET MOVEMENT MODIFIER

If a target moved during the turn in which an attack is made against it, the number of hexes it entered and the type of movement it used may increase the target number. The more hexes moved, the more difficult it is to hit the target (see *Target Movement Modifier*, p. 25).

MARGIN OF SUCCESS/ FAILURE (MOS/MOF)

Most actions in *BattleTech* have simple pass/fail results. The outcomes of some actions, however, depend on the amount by which the roll succeeds or fails. To determine the Margin of Success or Margin of Failure, sometimes abbreviated MoS or MoF, compare the roll result to the Target Number. If the result is greater, the difference is the Margin of Success. If the result is less, the difference is the Margin of Failure. If the dice roll matches the target number, the result is a success with a margin of 0.

ARMOR VALUE

Armor Value is defined as the total number of armor circles in a given location as shown in the Armor Diagram on a 'Mech Record Sheet. Some rules also use the terms "points of armor" or "armor points" to reference the number of armor circles in a location, or the number of remaining armor circles in a location.

DAMAGE VALUE

Damage Value is the amount of damage each weapon inflicts on a target. The Weapon and Equipment Tables list the Damage Values of each weapon.

Some weapons do not deal their full Damage Value to a single location. Instead, the points of damage from the weapon are divided into Damage Value groupings and then each grouping is assigned to a separate location (see *Cluster Weapons*, p. 96).

LOCATION

A BattleMech is comprised of eight locations. These are the left, right and center torsos, the head, and the four limbs (two arms and two legs for biped 'Mechs, four legs for quad 'Mechs). Damage is always applied to specific locations, and all 'Mech components are stored in these locations.

SLOT

On the Critical Hit Table of a 'Mech Record Sheet, each line within a location (six in the head and legs, twelve in other locations) is referred to as a "slot". Slots are where the weapons, equipment, and structural components that make up a 'Mech are placed. When critical hits are assigned, they are assigned to specific slots, disabling or even potentially exploding whatever is in that slot (see *Critical Hits*, p. 45). Many items require multiple slots.

LEVEL

Level refers to the height of ground terrain; i.e. a Level 2 hill hex, a Level 5 building hex, woods rising two levels above the underlying level of the hex and so on (see *Level Change*, p. 15). The term will also be used when referring to the height of a 'Mech; i.e. a 'Mech rises two levels above the underlying level of the hex.

SUBLEVELS AND DEPTHS

A subset of levels, *Sublevel* refers to any level below 0, while *Depth* refers to water hexes.

MAPSHEET

This general term refers to a single 18- by 22-inch playing map as printed by Catalyst (or FanPro/FASA) in the various map sets and HexPacks, or available electronically at bg.battletech.com.

PLAYING AREA

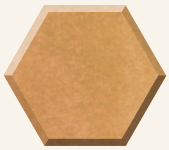
This general term refers to the total playing area of a given game, which consists of one or more mapsheets.

SCENARIO

This term usually describes a game with specific forces and set-up conditions. It can also be used to describe a single game—for example, a one-off game between the players.

TERRAIN HEX ICONS

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. Specific rules regarding the effect of terrain on movement and combat appear in *The Battlefield* chapter (p. 59).



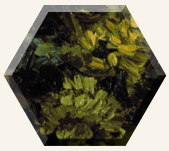
CLEAR

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

If a hex is not clearly marked as containing another terrain type, assume it is clear.

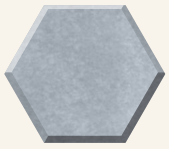
JUNGLE, LIGHT

Jungle terrain contains thick trees and shrubs, hanging vines and dense undergrowth that makes movement extremely slow and difficult.



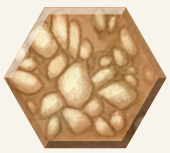
JUNGLE, HEAVY

Heavy jungle terrain is an even denser, taller growth of vegetation, impeding movement further.



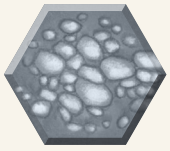
PAVEMENT

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.



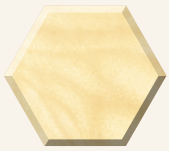
ROUGH

Rough terrain represents broken, rocky and jumbled ground. Though firm, the unevenness of this type of terrain makes it more difficult to cross than clear terrain.



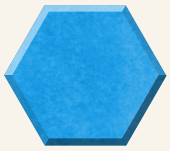
RUBBLE

Weapons fire, fire damage and physical damage inflicted by BattleMechs can reduce a building to a rubble terrain hex. A Rubble hex is difficult to move through.



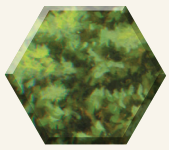
SAND

Sand terrain simulates the deep, shifting sands common to deserts and beaches throughout known space.



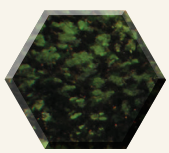
WATER

Streams, rivers, swamps, ponds and lakes are covered by Water terrain hexes. A Water hex is defined by depth levels (see *Level Change*, p. 16).



WOODS, LIGHT

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.



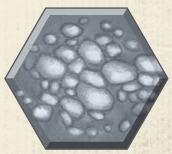
WOODS, HEAVY

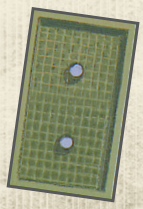
Heavily wooded terrain is covered thickly with 12-meter-tall trees, making movement through these areas very difficult. Light woods often border heavy woods.

COMPONENTS

BattleTech often employs a number of physical components, such as the following.

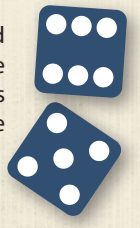
COUNTERS





Certain terrain features, such as rubble—or buildings, if players wish to add buildings to a mapsheet that does not have building hexes already printed on it—can be represented on the map by cardboard or paper counters. You can make your own, or purchase generic counters for use. Rather than printing such features on the maps, the use of counters to represent them allows the players to alter their locations before the game begins, based on the requirements of the scenario being played or by mutual player agreement for added variety.

DICE



BattleTech requires players to use two six-sided dice. If the situation requires the player to roll one die, the rules indicate this in shorthand as 1D6. Unless otherwise noted, the abbreviation 2D6 means the player rolls both dice and adds the results together.

MAPSHEETS

The 18- by 22-inch mapsheets used in *BattleTech* are divided into six-sided areas called hexes (short for hexagon); whether paper or game board-style, both are called "mapsheets" and treated identically in the rules. The players use these hexes to regulate movement and combat by moving 'Mechs from hex to hex during a turn.

'MECH RECORD SHEET

Players use a 'Mech Record Sheet to track damage done to a 'Mech during combat.

Open Information: Unless a scenario says otherwise, record sheets are always open information that your opponent can review at any time.

ARMOR DIAGRAM

The Armor Diagram on the top right-hand side of the record sheet shows the arrangement of a BattleMech's armor plating, while the Internal Structure Diagram directly below it shows the arrangement of a 'Mech's internal structure. Each circle on the Armor Diagram represents a point of armor. As armor is destroyed, the player marks off the appropriate circles. When all the circles in one location are filled in, damage transfers to the appropriate internal structure location, as shown on the Internal Structure Diagram. When all the circles in an internal structure location are filled in, that location is destroyed. This is covered in detail in the *Damage* chapter (see p. 41).

The Armor Diagram also shows the front and rear armor of the 'Mech's three torso locations (the arms, legs and head do not have rear armor locations). The Damage Transfer Diagram, which appears at the bottom of the Critical Hit Table, shows where the player must transfer damage when an already destroyed location takes additional damage.

For ease of reference, next to the name of each location on both the Armor Diagram, as well as the Internal Structure Diagram, a line is provided to fill in that section's starting Armor Value (or in the case of the internal structure, the starting internal structure value).

'MECH DATA

Located in the upper left-hand corner, this section of the record sheet lists the BattleMech's most important statistics, including type, tonnage, movement, and weapons inventory.

WARRIOR DATA

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

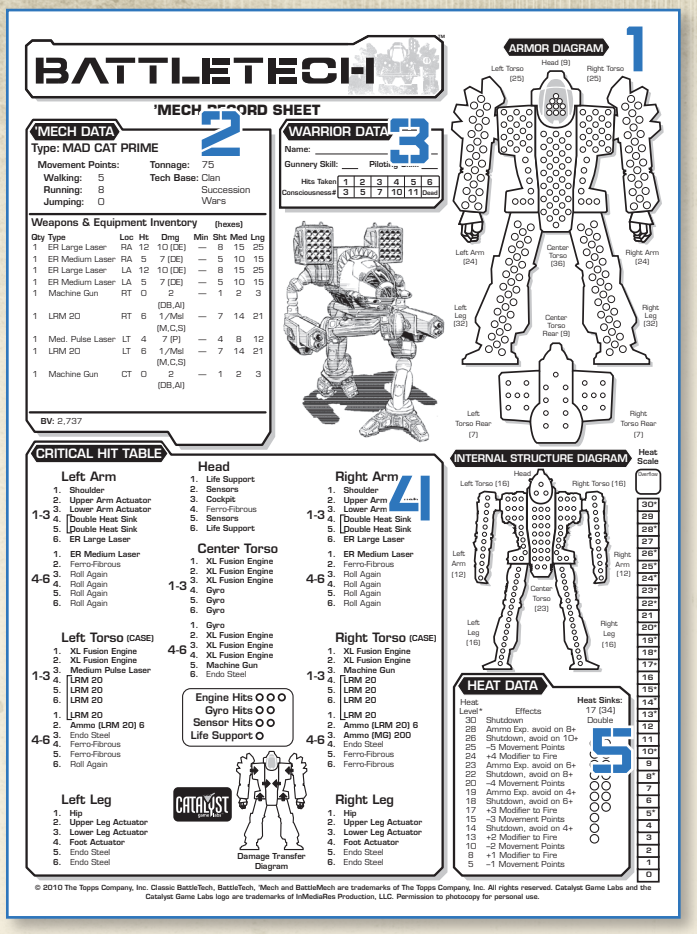
CRITICAL HIT TABLE

The Critical Hit Table shows the physical location of the BattleMech's critical equipment, weapons and ammunition for reference when applying critical hits. A BattleMech is usually destroyed through critical damage.

HEAT DATA AND HEAT SCALE

Located in the bottom right-hand corner of the Record Sheet, the Heat Data and Heat Scale help the player track the 'Mech's internal heat buildup, as well as indicate how many heat sinks a 'Mech mounts (circles underneath the numerical value in the Heat Data section allow players to mark off heat sinks as they are damaged). As heat builds up, the player checks off the boxes in the Heat Scale from low to high (usually with a pencil, as heat will fluctuate up and down the Heat Scale throughout a game).

Heat is a limiting factor. At certain levels of heat buildup (noted on the Heat Scale with asterisks), corresponding information in the Heat Data section describes the heat's effect on the 'Mech's operation. The blank space marked "Overflow" at the top of the Heat Scale is used to record heat generated in excess of 30 points.



A NOTE ON REALISM AND SCALE

Given the 30-meter area of each hex stated above, players may note various oddities in the weapon ranges presented in this book, such as the fact that the standard 'Mech-scale machine gun of the distant thirty-first century only reaches out to 3 hexes (90 meters). As today's machine guns have effective ranges of some 2,000 meters, this may seem somewhat absurd.

The reason for this is simple: *BattleTech* is a game. Because *BattleTech* mapsheets are only seventeen hexes long, recreating real-world ranges on a table would require more than seven mapsheets laid end to end, for a playing space greater than twelve feet in length. Few people have that much table space. Nor would it provide players with any tactical maneuvering room: anywhere a player might move a 'Mech on the map, an attacker could hit it. As such, while we may safely assume "real" *BattleTech* weapons have exceptional ranges, range abstractions are an absolute necessity unless one is regularly able to rent a tennis court for game time.

LEVEL

The level of a hex is the height to which it rises above the prevailing terrain. All terrain has a level, but the level of each hex is independent of the type of terrain it contains, such as woods or water. If it is not marked on the map, assume a hex's level is 0.

This height is expressed in terms of levels. Level 1 is approximately six meters high, waist-high to a 'Mech. Level 2 terrain is approximately twelve meters high. This is considered as being

the height of all 'Mechs for gameplay purposes. Level 3 terrain is approximately eighteen meters high, and so on. The level of a hex is considered equal to the highest level present in it.

Sublevels: Hexes with levels lower than 0 are referred to as sublevels. Such hexes are marked in sublevels that correspond to levels in reverse. For example, a Sublevel 1 hex is six meters deep, while a Sublevel 2 hex is twelve meters deep, and so on.

If any part of a hex contains a sublevel, the entire hex is considered to be the deepest sublevel marked in it. The exception to this rule occurs if the hex also contains a level greater than 0, in which case the level of the hill takes precedence as described above.

THE MECHWARRIOR

The soldiers who pilot BattleMechs are called MechWarriors.

SKILLS

MechWarriors use two skills in combat: Piloting and Gunnery. Each skill has a rating; the lower a MechWarrior's skill rating, the better the MechWarrior is at the skill—and the lower their base Target Number will be when using that skill during gameplay.

Piloting Skill represents a MechWarrior's ability to control his machine's movements. This skill includes keeping a 'Mech from falling down and striking targets in physical combat.

Gunnery Skill helps determine how easy or difficult it is for the MechWarrior to make a successful shot using his 'Mech's ranged weapons (see *Firing Weapons*, p. 25).

DEFAULT SKILL RATINGS

The average Inner Sphere MechWarrior has a Gunnery Skill of 4 and a Piloting Skill of 5. The average Clan MechWarrior is a superior pilot and marksman, with a Gunnery Skill of 3 and a Piloting Skill of 4. Unless otherwise stated in the scenario being played, all MechWarriors of these respective factions have these skill ratings.

Battle Value: In scenarios balanced using the Battle Value system, the improved Gunnery and Piloting Skills of Clan MechWarriors given above must still be paid for in BV. See the Master Unit List at *www.masterunitlist.info* for a comprehensive list of units and accompanying Battle Values.

PILOTING SKILL ROLLS (PSR)

When a 'Mech attempts a dangerous maneuver, or whenever the MechWarrior might lose control of the 'Mech, that 'Mech's controlling player must make a Piloting Skill Roll, commonly abbreviated as PSR (see *Piloting Skill Rolls*, p. 53).

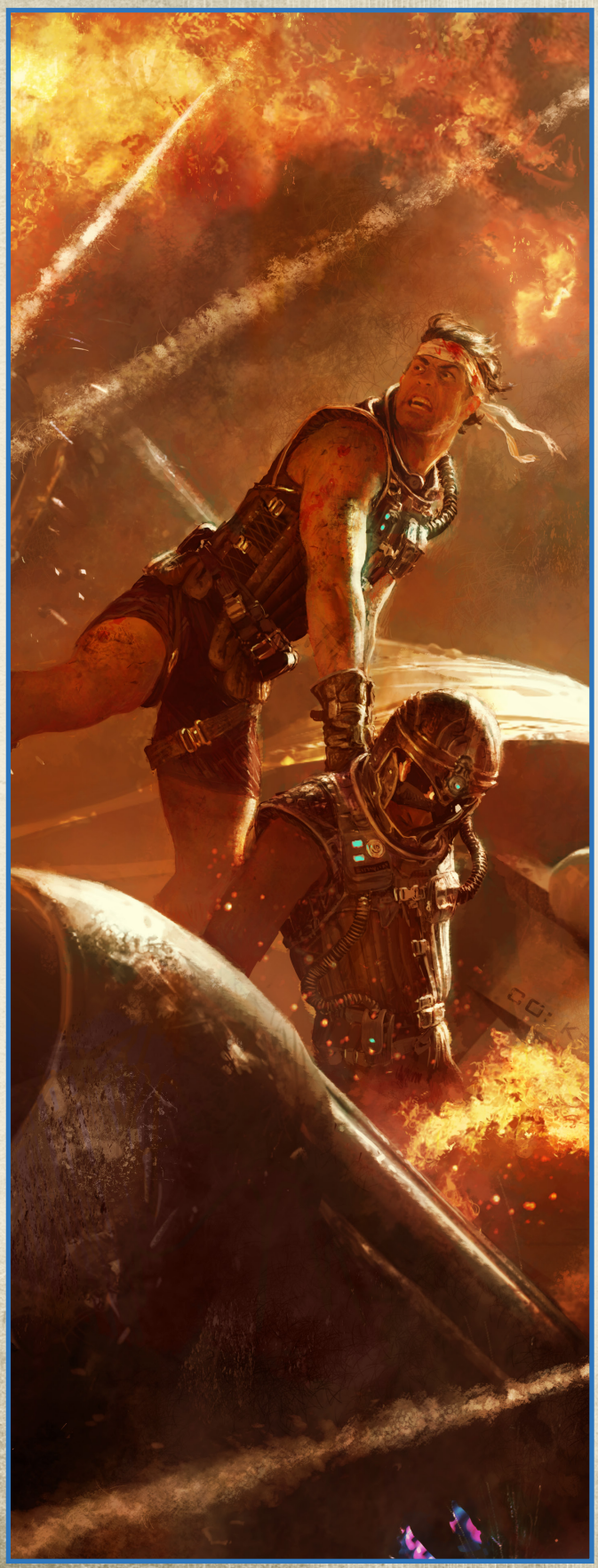
Additionally, a 'Mech's base Target Number for physical attacks is equal to the Piloting Skill rating of its MechWarrior. When adjusted for movement, damage, and other factors, this number becomes the modified Target Number for such attacks (see *Physical Attacks*, p. 34).

GUNNERY SKILL RATING

The base Target Number for ranged weapon attacks is equal to the Gunnery Skill rating of the MechWarrior making the attack (see *Firing Weapons*, p. 25).

DAMAGING A WARRIOR

Falls, ammunition explosions, heat, and other perils can wound and eventually kill a MechWarrior. See *Damaging a MechWarrior*, page 58.



PLAYING THE GAME

A *BattleTech* game consists of a series of turns, each being ten seconds of real time. This chapter breaks down how to play a game of *BattleTech* from start to finish.

DEPLOYING 'MECHS

There are no formal rules to how each side should deploy their 'Mech(s) on the mapsheet at the start of the game. Typically, instructions to this effect are laid out by a gamemaster (if any), or by the scenario being played. If there are no such instructions, players should come to an agreement regarding deployment before the game begins, or simply use the following informal guidelines:

- Both sides roll Initiative.
- The winning player chooses a side of the playing area they will enter; the losing player will enter the opposite side.
- Each 'Mech, when it is their turn to move, enters their side walking, running, or jumping, as announced by its controller, counting MP expenditure beginning with the first full hex of the playing area.

SEQUENCE OF PLAY

Each turn consists of several smaller segments, called phases. During each phase, players may take one type of action, such as movement or combat. The players execute the phases in a given order, with all players completing a phase before anyone moves onto the next phase. Details on each phase are fully explained in separate sections later in this book.

Each turn includes the following phases, performed in the following order:

1. Initiative Phase
2. Movement Phase
3. Weapon Attack Phase
4. Physical Attack Phase
5. Heat Phase
6. End Phase

STRATEGIC

ALTERNATE INITIATIVE

Occasionally other Initiative systems are used, due to preference for a different style or as a way to speed up play in larger games. For example, one common system deals playing cards to all players. These cards are shuffled by a gamemaster at the start of each turn, then flipped up in one at a time, activating each player in the order of the cards.

As long as the system is random and not weighted towards one side or another—and provided all players agree to its use—such alternates can work well.

INITIATIVE PHASE

One player from each side rolls 2D6 and adds the results together to determine their side's Initiative. The side with the higher result wins Initiative for that turn. Re-roll all ties.

MOVEMENT PHASE

The side that lost Initiative must act first. They choose one of their 'Mechs and assign it a movement action: this is called a movement selection. The side that won Initiative then does the same. Movement alternates between sides until all 'Mechs have been moved, with any Piloting Skill Rolls (see p. 53) required due to movement made the moment they are called for. If either side has more 'Mechs than the other, it may need to move more than one 'Mech at once (see *Unequal Numbers of 'Mechs*, p. 12).

STRATEGIC

MOVING MULTIPLE 'MECHS

Many scenarios have players move more than one 'Mech at a time (i.e. a lance or even all the 'Mechs on a side), since this greatly speeds up movement. Such Initiative modifications are optional, and so must be agreed on before play begins.

Remaining still is a valid movement action and still uses one movement selection. A player may assign a movement action to any 'Mech that has not been destroyed, even if it is completely immobile. For example, a 'Mech whose warrior is unconscious can still be given a movement action (in order to use up a movement selection), even though it must remain immobile.

WEAPON ATTACK PHASE

The side that lost Initiative must act first. They choose one of their 'Mechs to declare fire first: this is called a fire selection. The side that won Initiative then does the same. Fire selection alternates between players until all fire has been declared.

If either side has more 'Mechs than the other, the players of that side may need to declare fire for more than one 'Mech at once (see *Unequal Numbers of 'Mechs*, p. 12).

DECLARING WEAPONS FIRE

A player may declare fire with any 'Mech that has not been destroyed. For example, a 'Mech with no weapons or whose warrior is unconscious can still declare fire (in order to use up a fire selection), even though it cannot actually attack. Declaring that a 'Mech will not fire is a valid action and still uses one fire selection.

When declaring attacks, the player controlling the 'Mech chosen declares whether it will twist its torso or flip its arms, and in which direction. They must declare any attacks they plan to make, specifying which weapons they will fire and at what target(s). If a weapon uses special ammo loads, such as LB-X cluster munitions,

or can make special types of attacks, such as double-firing an Ultra autocannon, or can produce any other unusual effects, the player must declare any use of these at this time.

Players may not change an attack declaration once made.

TORSO TWIST

Torso twists are made when declaring a weapon attack; this affects physical attack arcs as well. A 'Mech that has torso-twisted changes its own firing arc, but this has no effect on damage it receives. See *Torso Twists*, page 25.

RESOLVING WEAPONS FIRE

After all attacks have been declared, players resolve weapons fire one 'Mech at a time. Again, the side that lost Initiative must act first. All declared attacks must be made, even if the intended target is destroyed before all attacks against it have been resolved. A 'Mech always gets to make its declared attacks for the phase, even if that 'Mech or its weapons winds up being destroyed in that phase.

All weapon attacks by one 'Mech should be resolved before those of the next 'Mech, in order for players to more easily track which weapons have fired. However, the order in which weapons are rolled and resolved is up to each 'Mech's controller. See the *Combat* chapter, page 25, for how to resolve weapon attacks.

STRATEGIC

SEGMENTED FIRE

As seen in the process outlined at left, after all players have declared their attacks, normally each player completely resolves the Weapon Attack Phase actions of each 'Mech one at a time, from resolution to damage, before moving on to the next 'Mech. As an option to speed up play, after all players have made their attack declarations, all players may then make all to-hit rolls for all attacks declared that phase, before any damage by any 'Mech is resolved.

RESOLVING DAMAGE

The damage inflicted by each weapon hit is fully resolved, from start to finish, before moving on to the next hit. If a single weapon attack inflicts multiple hits (possible with missiles, rapid-fire weapons, and the like), then each hit from that attack is fully resolved before moving on to its next hit. See the *Damage* chapter, page 41.

All Consciousness Rolls required due to damage inflicted in this phase are made the moment damage to the MechWarrior is applied (which is after all attacks are resolved; see p. 58). After this comes all Piloting Skill Rolls required (see p. 53), each taking into account all modifiers resulting from damage inflicted that phase.

PHYSICAL ATTACK PHASE

Players repeat the steps given for the Weapon Attack Phase, except for torso twisting, with all damage from physical attacks taking effect before the Heat Phase. See page 34.

HEAT PHASE

Players adjust their 'Mech's heat scales to reflect any heat built up or lost during the turn and resolve any effects caused by excessive heat. In particular, 'Mechs shutdown due to heat make their restart attempts in this phase. See the *Heat* chapter, page 50.

Heat may also damage a warrior, forcing one or more Consciousness Rolls (see p. 52).

END PHASE

A variety of miscellaneous actions can occur during this phase, some optional and some mandatory, if applicable. An action's description will state whether it occurs during the End Phase, but the following summarizes all such actions:

MANDATORY

- Any MechWarrior who was unconscious during the Initiative Phase of this turn rolls 2D6 to see if they regain consciousness (see *Recovering Consciousness*, p. 58).
- Torsos that were twisted return to a forward-facing position (see *Torso Twists*, p. 25).
- Reversed arms return to a forward-facing position (see *Reversing (Flipping) Arms*, p. 24).
- A pilot of a submerged 'Mech with critical damage to its life support system takes 1 damage (see *Life Support (Head)*, p. 48).
- A hex that started on fire this turn fills the first two hexes downwind from it with smoke (see *Effects of Fire*, p. 63).
- Smoke produced by extinguished fire hexes is removed from play (see *Extinguishing Fire*, p. 64).
- Cargo being unloaded always completes its unloading in this phase (see *Lifting Items (Simplified)*, p. 21).
- Ammunition announced the previous End Phase as being dumped is dumped at this time (see *Dumping Ammunition*, p. 58).

OPTIONAL

- Any player with a 'Mech which will attempt to clear a jammed rotary autocannon next turn must declare that attempt at this time (see *Rotary Autocannon (RAC)*, p. 98).
- Heat sinks can be switched on or off (see *Building Up Heat*, p. 50).
- Machine gun arrays, stealth armor, the auto-eject system, and any equipment listed in the *Electronics* section (see p. 109) can be switched on or off.
- 'Mechs can be voluntarily shut down, or restarted if voluntarily shut down in a previous End Phase (see *Shutdown*, p. 52).
- Ammunition dumping can be announced at this time (see *Dumping Ammunition*, p. 58).
- Searchlights can be switched on or off (see *Light*, p. 62).

VICTORY CONDITIONS

Players repeat the sequence of play given above until one side achieves victory. Under normal circumstances, the side with the last surviving 'Mech(s) on the map wins. If the last 'Mechs from each side are destroyed simultaneously in the same turn, or if the last 'Mechs from each side cannot move and have no ability to damage one another, the game is a draw. Players may set other victory conditions by mutual agreement before play begins. In addition, some scenarios may have special victory conditions of their own.

UNEQUAL NUMBERS OF 'MECHS

The Movement Phase, Weapon Attack Phase, and Physical Attack Phase require each player to alternate moving or declaring attacks with their 'Mechs. When both sides have an equal number of 'Mechs, each player simply takes a turn moving or declaring a single 'Mech's action, then the other player declares movement or an action for one 'Mech, and so on. If the number of 'Mechs on each side is not equal, however, this procedure must be altered.

If, prior to any pair of movement or attack declarations, one team has at least twice as many 'Mechs left to declare for as the other team, the team with twice as many 'Mechs declares for two 'Mechs rather than one. If one team has at least three times as many 'Mechs, it declares for three each time, and so on.

The following two tables provide examples of how this works across different force sizes.

UNEQUAL NUMBERS OF 'MECHS EXAMPLES

Move No.	Side B Units Left to Move	Side A Units Left to Move	Side B Moves	Side A Moves
1	10	18	1	1
2	9	17	1	1
3	8	16	1	2
4	7	14	1	2
5	6	12	1	2
6	5	10	1	2
7	4	8	1	2
8	3	6	1	2
9	2	4	1	2
10	1	2	1	2

Move No.	Side B Units Left to Move	Side A Units Left to Move	Side B Moves	Side A Moves
1	5	14	1	2
2	4	12	1	3
3	3	9	1	3
4	2	6	1	3
5	1	3	1	3

MOVEMENT

In the Movement Phase, BattleMechs have the opportunity to change their position on the mapsheet.

Buildings: Movement dealing specifically with buildings is largely covered in the *Urban Combat* chapter (see *Movement Effects*, p. 67).

Hidden 'Mechs: If using the *Hidden 'Mechs* rules (see p. 82), a hidden 'Mech is not counted when making movement selections unless the player plans to move that hidden 'Mech that turn. A player that plans to move it that turn must reveal it and place it on the map at the start of that turn's Movement Phase. Hidden 'Mechs revealed by enemy 'Mechs during the Movement Phase cannot move during that phase.

STRATEGIC

PILOTING SKILL ROLLS

As you move your 'Mech about, you'll almost certainly be called on to make a Piloting Skill Roll (a "PSR") to avoid falling. Typically this is due to entering difficult terrain, such as water and rubble, but damaged 'Mechs may fall when navigating even clear hexes, as shown on the Piloting Skill Roll Table on page 54. As PSRs can be called for as a result of combat as well, we've placed the rules for them in Chapter 7 (see p. 53). Players should familiarize themselves with the PSR rules before beginning play.

STRATEGIC

MOVEMENT DICE

To help remember which 'Mechs moved in what way, movement dice are often used. Commonly, white dice are used to mark 'Mechs that walked, black dice for those that ran, and red dice for those that jumped (if using the optional Sprinting rules, yellow dice are typically used when sprinting). The number displayed on the die is the Target Movement Modifier generated as a result of the move, with "6" traditionally indicating a TMM of 0 (or immobility). Also common is the rule that—like taking your hand off the piece you are moving in chess—once a movement die is placed, that move cannot be changed.

It's best to use dice of a different size and/or color than those used for rolling attacks, to prevent confusion. During the End Phase, remove all movement dice from the board.

MOVEMENT MODES

'Mechs are assigned movement actions in initiative order (see *Sequence of Play*, p. 10). Every 'Mech must be assigned one (and only one) of the movement modes available to it. In general, the more hexes a 'Mech moves, the harder it is to be hit. Modes that provide more Movement Points (MP) thus help keep a 'Mech safe. However, such modes generate more heat, and make it so that a 'Mech has a harder time hitting with its own attacks.

Minimum Movement: A 'Mech that intends to use the *Minimum Movement* rule (see p. 16) must run.

Prone 'Mechs: As a 'Mech is assigned a movement mode first, and then moves, a 'Mech that begins the Movement Phase prone (see p. 19) must declare whether it will walk or run before it attempts to stand.

Underwater Maneuvering Units (UMUs): A 'Mech must use the Jumping movement mode to use UMUs. For details on their use, see *Movement in Water*, p. 19.

XXL Engines: A 'Mech with an XXL engine generates heat even if standing still, and more heat than normal for each other movement mode. See *XXL Engine* on p. 50 for details.

STANDING STILL

A 'Mech that stands still remains in the hex in which it started the turn. It may not expend MP that turn, even just to change its facing.

Choosing this mode does not make a mobile 'Mech immobile (see *Immobile*, p. 18). However, this mode can be assigned to any 'Mech, even immobile ones. As "choosing" this mode for an immobile 'Mech still uses a movement selection, this is a good way to put off assigning actions to your more useful mobile 'Mechs until later in the initiative order.

- **Target Number Modifier as Attacker:** 0
- **Target Number Modifier as Target:** 0
- **Heat Generated:** 0

WALKING

A walking 'Mech may expend a number of MP up to its Walking MP rating (even spending 1 MP to turn a hexside facing counts as walking). 'Mechs may walk backward.

- **Target Number Modifier as Attacker:** +1
- **Target Number Modifier as Target:** Based on hexes traveled (see the Attacker Modifiers Table, p. 28)
- **Heat Generated:** 1 (total, not per hex traveled)

One-Legged 'Mechs: Walking is the only movement mode a one-legged 'Mech can use.

Triple-Strength Myomer: A 'Mech with active TSM (see p. 115) increases its Walking MP by 2. Recalculate its Running MP based on this new total, using the procedure described below.

RUNNING

A running 'Mech may expend a number of MP up to its Running MP rating. A 'Mech cannot move backward while running.

A 'Mech's Running MP rating is equal to its Walking MP times 1.5, rounding up, unless the 'Mech is using special equipment such as MASC or a supercharger (see below).

- **Target Number Modifier as Attacker:** +2
- **Target Number Modifier as Target:** Based on hexes traveled (see the Attacker Modifiers Table, p. 28)
- **Heat Generated:** 2 (total, not per hex traveled)

Critical Damage: If a 'Mech uses Running MP, each of the following forces a Piloting Skill Roll (see p. 53) after its movement in order to avoid falling: critical hit to the gyro, critical hit to a hip.

If damage reduces a 'Mech's Walking MP rating, the player must recalculate the 'Mech's Running MP rating.

MASC: A 'Mech that has successfully activated MASC that turn (see p. 115) may run at up to twice its Walking MP.

Pavement: A 'Mech using running movement on a paved surface risks skidding (see *Skidding*, p. 20).

Supercharger: A 'Mech that successfully activates a supercharger that turn (see p. 115) may run at up to twice its Walking MP.

If a 'Mech activates both a supercharger and MASC, it receives a Running MP equal to 2.5 times its Walking MP. If a 'Mech uses a supercharger with active triple-strength myomer in the same turn, the TSM modifier is added before applying the supercharger modifier.

Water: 'Mechs cannot enter a Depth 1 or deeper water hex while running (whether the 'Mech is already in water or not), though a running 'Mech may change facing in one, and/or move from a water hex to a land hex.

JUMPING

Only 'Mechs that possess Jumping MP and are standing at the start of the turn may select this mode; they may then expend a number of MP up to their Jumping MP rating. As jumping features numerous exceptions to the basic movement rules, see *Jumping Movement* on p. 18 for the full details.

- **Target Number Modifier as Attacker:** +3
- **Target Number Modifier as Target:** +1, plus a further modifier based on hexes travelled (see the Attacker Modifiers Table, p. 28).
- **Heat Generated:** 1 heat point for every hex jumped; improved jump jets generate half this much heat (round the final amount up). However, using jump jets always generates a minimum of 3 heat points, no matter how far a 'Mech jumps or what jump jet type is used.

Critical Damage: If a 'Mech uses Jumping MP, each of the following forces a Piloting Skill Roll (see p. 53) to avoid falling upon landing: loss of a leg, critical hit to the gyro, critical hit to a hip or any actuator in a leg location.

'Mechs lose one Jumping MP for each jump jet destroyed.

SPRINTING (OPTIONAL)

Sprinting is an optional movement mode. To sprint, a 'Mech must have two intact hip actuators.

A 'Mech's Sprinting MP is twice its current Walking MP. Sprinting generates 50% (round down) more heat points per turn than the 'Mech generates when running.

A 'Mech that sprints may not make any deliberate attacks that turn. Accidental charges as a result of skidding are still possible, and a 'Mech may still fire weapons to generate heat, though such firing has no chance of doing damage. Additionally, the 'Mech may not spot for indirect fire or take any action that would require it to sacrifice its attack. All restrictions that apply to a running 'Mech apply to a sprinting 'Mech.

Attacks against a sprinting 'Mech receive an additional –1 Target Number modifier. Piloting Skill Rolls made for a sprinting 'Mech apply a +2 Target Number modifier.

A 'Mech equipped with MASC or a supercharger may engage one or both systems and sprint during the same turn. Engaging one system provides MP equal to the current Walking MP multiplied by 2.5. However, any 'Mech that tries to sprint and use MASC or a supercharger must make a Piloting Skill Roll (see p. 53; apply the +2 modifier for sprinting) to avoid falling; the roll is made at the end of the 'Mech's movement.

If a 'Mech engages both MASC and a supercharger in the same turn and sprints, the 'Mech's MP is equal to its current Walking MP multiplied by 3. However, the 'Mech must make a PSR as described above for both the MASC and the supercharger.

MOVEMENT BASICS

After being assigned a movement mode, a 'Mech then spends the Movement Points (MP) provided. A 'Mech need not spend all its MP each turn, but no matter how few are spent, the 'Mech's movement mode does not change. MP left at the end of the turn are lost (i.e. you can't "bank" MP).

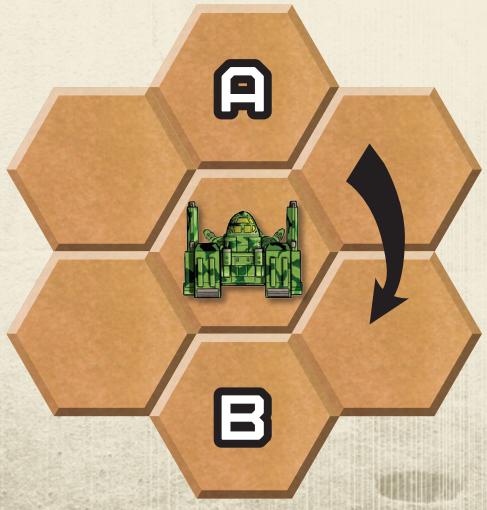
Key Reference: Movement Costs Table (see p. 17).

FACING

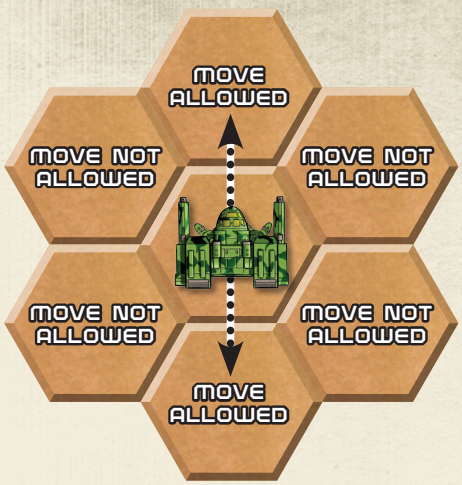
Every hex on the map has six edges, called hexsides. Every 'Mech must face one of those six hexsides: this is known as its facing. A 'Mech faces the way its feet are pointing.

Changing facing costs 1 MP per hexside. For example, in the diagram below, a 180-degree turn (three facings, from Hex A to Hex B) costs 3 MP. 'Mechs not clearly facing one hexside at the end of the Movement Phase must be realigned to one of the two closest hexsides by the gamemaster (or the opposing player, if there is no gamemaster).

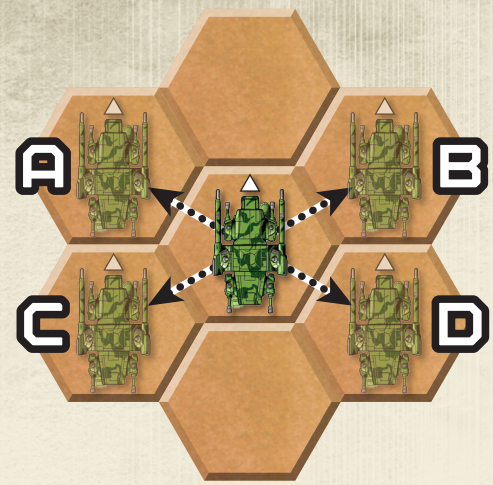
Torso Twisting: A 'Mech can twist its torso. This only changes its weapon arcs, not its facing, and occurs in the Weapon Attack Phase (see p. 25).



• FACING CHANGE DIAGRAM •



• MOVEMENT DIRECTION DIAGRAM •



• LATERAL SHIFT DIAGRAM (1 ADDITIONAL MP) •

GROUND MOVEMENT

A 'Mech 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 without first changing its facing (unless it is a quad 'Mech; see below).

To enter a clear hex costs 1 MP. Terrain in a hex often raises this cost (see *Terrain*, p. 15).

Lateral Shift: A quad 'Mech that still has all four of its legs may move laterally (sideways) without changing its facing. A quad 'Mech making a lateral shift moves into an adjacent hex that is not directly to its front or rear, while retaining its facing, for the same MP cost as if it walked forward into it.

A backward lateral shift—moving into hexes C or D in the diagram above—is considered backward movement; a 'Mech must walk to do this.

Partial Hexes: 'Mechs cannot voluntarily move into or through half- or quarter-hexes. 'Mechs forced into such hexes are considered destroyed for the remainder of the scenario.

BACKWARD MOVEMENT

A 'Mech can only move backward if it uses Walking MP that turn. Such a 'Mech can move forward, backward, or both in the same Movement Phase.

'Mechs moving backward may not change levels.

Backward Level Changes (Optional): If using this optional rule (see p. 15), a 'Mech may make a level change while moving backwards.

TERRAIN

While a 'Mech always spends at least 1 MP to enter a hex, terrain often raises this MP cost, as shown under the MP Cost Per Hex/Terrain Cost column of the Movement Costs Table (see p. 17). For example, entering a heavy woods hex costs 3 MP: the base 1 for entering any hex, and then another 2 for the heavy woods.

Difficult Terrain: Entering a hex containing certain terrain types requires a Piloting Skill Roll (see p. 53) to see if the 'Mech falls. Such information appears on the Movement Costs Table (see p. 17).

Water: If jumping into or out of water, see page 19. Otherwise, see *Movement in Water*, page 19.

LEVEL CHANGE

When moving forward a 'Mech may change levels (or depths) by only 1 or 2 levels per hex, at an additional cost of 1 MP per level (whether up or down). No 'Mech may "voluntarily fall" from a greater level in order to circumvent the maximum allowable level change in a single hex.

Backward Movement: 'Mechs moving backward may not change levels.

Prohibited Level Change: Even a forced level change (such as from a charge, push, or death from above attack) cannot force a 'Mech into a hex three or more levels higher than the hex it was in immediately prior. However, a 'Mech can be forced downward any number of levels; being forced two or more levels lower results in an automatic fall.

If a 'Mech is forced into a hex that already has a 'Mech, see *Displacement*, page 55.

BACKWARD LEVEL CHANGES (OPTIONAL)

This optional rule allows a backward moving 'Mech to change 1 level per hex. A Piloting Skill Roll (see p. 53) is required each time the 'Mech changes a level in this way.

If the roll fails, the 'Mech falls either into the hex it was moving into or the hex it was moving out of, whichever is lower. The change in levels is not taken into consideration for determining the number of levels fallen.

STACKED TERRAIN

Multiple terrain types can occur in the same hex. For example, a Level 2 hex might be rough, but might also be a rubble hex due to a destroyed building. In such situations, all modifiers (including Piloting Skill Rolls required) are cumulative.

Conflicting Terrain: Maps may feature conflicting terrain. If any part of a hex contains a sublevel, the entire hex is considered to be the deepest sublevel marked in it. The exception to this rule occurs if the hex also contains a level greater than 0, in which case the level of the hill takes precedence.

OCCUPIED HEXES

A 'Mech can move through a hex occupied by a friendly 'Mech, but cannot enter a hex occupied by an enemy 'Mech. There are some unusual cases/exceptions:

- You can deliberately try to collide with an enemy 'Mech. This is a charge attack (see p. 35).
- A skidding 'Mech might skid into or through hexes containing enemy 'Mechs (see p. 68).
- If conducting a 'Mech drop (see *Dropping 'Mechs (Simplified)*, p. 79), you can deliberately place your 'Mech in the same hex as an enemy 'Mech.
- A 'Mech attempting to enter a hex containing an enemy hidden 'Mech (see p. 82) immediately ends its movement before it can enter the hex.

Additionally, a 'Mech can never end its move in a hex with another 'Mech (friend or foe; see *Stacking*, p. 18).

PARTIALLY-OCCUPIED HEXES (OPTIONAL)

When using this option, a 'Mech can enter and then exit a hex occupied by an enemy 'Mech in the same move if the enemy 'Mech is abandoned (see p. 49), immobile (see p. 16), or prone (see p. 19).

MINIMUM MOVEMENT

A 'Mech can move into the hex directly in front of it, even if it does not have the MP normally required. A 'Mech can only do this if it meets all of the following conditions:

- It has at least 1 MP to spend
- It is not prohibited from entering the hex (see *Level Change*, p. 15)
- Such movement is the only MP it expends that turn (e.g. it cannot change its facing in the same turn)

To enter a hex in this fashion, a 'Mech must use running movement. 'Mechs using this rule can enter hexes that normally could not be entered by a running 'Mech (for example, Depth 1 or greater water hexes). Any Piloting Skill Rolls required for running still apply.

Prone 'Mechs: A prone 'Mech with only 1 MP available can make a single attempt to stand using this rule. See *Standing Up*, on page 19.

IMMOBILE

An immobile 'Mech cannot make movements of any kind. Attacks against an immobile target apply a –4 Target Number modifier, and aimed shots (see p. 30) can be made at the target.

MOVEMENT COSTS TABLE

Movement Action/Terrain Type	MP Cost Per Hex/Terrain Cost	Piloting Skill Roll
Cost to Enter Any Hex	1	—
Terrain Cost When Entering Any New Hex		
Clear	+0	—
Paved/Bridge	+0	—
Road	+0*	—
Rough	+1	—
Sand	+0	+1
Light woods	+1	—
Heavy woods	+2	—
Light jungle	+2	+1
Heavy jungle	+3	+2
Water		
Depth 1	+1† (Level change MP cost not included)	–1
Depth 2+	+3† (Level change MP cost not included)	+0 (+1 if Depth 3+)
Level change (up or down)		
1 level	+1	—
2 levels	+2	—
Rubble	+1	+0
Light building	+1	‡
Medium building	+2	‡
Heavy building	+3	‡
Hardened building	+4	‡
Additional Movement Actions		
Facing change	1/hexside	—
Dropping to the ground	1	—
Standing up	2/attempt	+0
Terrain Modifications		
Ice	+1	+3§
Mud	+1	+1§
Deep Snow	+1	+1§
Swamp	+1	+1§
Weather Conditions		
Light Fog	+1	—
Heavy Fog	+2	—
Full Moon Night	+1**	—
Moonless Night	+2**	—

* If traveling along road; otherwise cost of underlying terrain.
† MP cost to move along the bottom of the water hex.
‡ Piloting Skill Roll required to prevent damage. The roll is modified for the 'Mech's movement per the Building Movement Modifiers Table (see p. 67).
§ This penalty applies to all PSRs made in this hex (including the PSR made when entering it).
**A 'Mech with an activated searchlight ignores this penalty.

- **The following are immobile:** buildings; hexes; 'Mechs shutdown, abandoned, missing all four limbs, or with an unconscious MechWarrior.
- **The following are not immobile:** mobile 'Mechs that choose to stand still, prone 'Mechs, 'Mechs missing two legs (biped or quad), 'Mechs reduced to 0 MP by actuator damage and/or heat, a 'Mech with its gyro destroyed.

Unless a situation specifically states the target is immobile, it is not.

When making movement selections (see *Movement Phase*, p. 10), immobile 'Mechs may still be selected, even though they can do nothing but stand still.

Piloting Skill Rolls: An immobile 'Mech forced to make a Piloting Skill Roll (see p. 53) automatically fails, unless it is prone.

STACKING

At the end of the Movement Phase (after any 'Mechs destroyed that phase are removed from play), only one 'Mech can be in any single hex. This is called the stacking limit, and no 'Mech may deliberately violate it (unless conducting a 'Mech drop; see p. 79).

If the stacking rules are violated involuntarily, one of the 'Mechs in the hex will be forced out of that hex (see *Displacement*, p. 55).

Buildings: The stacking rules do not apply to 'Mechs in the same building hex but on different levels of it. Only apply the stacking limit to each level of the building hex (see *Building Levels*, p. 66).

JUMPING MOVEMENT

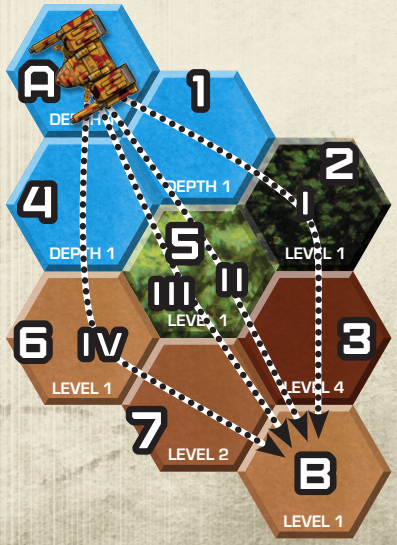
Jumping features numerous exceptions to the movement rules. To jump, a 'Mech must be standing at the start of the turn.

A jumping 'Mech can move 1 hex for each available Jumping MP. Terrain does not affect this MP cost: if a hex is legal to enter, it costs 1 MP to move over or into it, period. A 'Mech may jump into the same hex it began the turn in, for 1 MP.

A jumping 'Mech ignores terrain (and the presence of 'Mechs) in hexes it jumps over. As such, it need not make Piloting Skill Rolls if moving over hexes that normally force a PSR. However, it obeys the normal rules in the hex it lands in. A jumping 'Mech also ignores facing: it can jump in any direction for the same MP cost, regardless of its initial facing, and when it lands it chooses any facing desired.

A 'Mech with at least 1 Jumping MP may jump down any number of levels. However, a 'Mech cannot enter a hex with a level higher than the sum of its current Jumping MP plus the level of the hex its jump began in.

A 'Mech can only jump to its destination hex via the shortest path (i.e. the fewest number of hexes required to get there). If more than one such path exists, the player chooses which of these paths their 'Mech takes. If all such paths are illegal (for example, there is only one path, and one of the hexes in the path has a level too high for the 'Mech to enter via jumping), the 'Mech cannot jump to the destination hex at all.



• JUMPING DIAGRAM •

In the Jumping Diagram at left, the 'Mech in Hex A has a Jumping MP of 6. The 'Mech jumps to Hex B, four hexes away. Because the 'Mech is jumping, it spends only 1 MP for every hex that it moves, ignoring all terrain costs (including levels) for the hexes it passes over and for the hex in which it lands. (To reach Hex B with the facing shown by walking or running, the 'Mech would have had to spend at least 10 MP). As it lands, the player can face the 'Mech in any direction desired, at no extra cost.

The 'Mech is starting in Depth 1 water (Hex A), giving it a level of –1. Two of its jump jets are in its legs and so cannot be used, as they are submerged. Its other jump jets are located in the torsos, however, so it can still jump with a Jumping MP of 4.

At first, it appears the 'Mech could have jumped into Hex B by at least four different hex paths that are equally short (four hexes), as indicated on the diagram. There are actually two more paths (1-5-7-B and 4-5-3-B), but in this example only the primary four paths will be discussed.

Path I: 1, 2, 3, ending Hex B.
Path II: 1, 5, 3, ending Hex B.
Path III: 4, 5, 7, ending Hex B.
Path IV: 4, 6, 7, ending Hex B.

The player cannot choose Path I and II, however, because a hill in the intervening terrain (Hex 3) has a level of 4. The 'Mech has 4 Jumping MP, which would normally be enough, but as it is standing in Depth 1 water it has a starting level of –1, which means it can only jump over Level 3 terrain and lower this turn. As such, the 'Mech cannot jump over Hex 3. If Paths I or II were the only paths available, then the 'Mech could not jump to Hex B at all, because the shortest possible routes would both be illegal.

While the trees in Hex 5 rise two levels above the underlying terrain, they only rise to Level 3 (1 (underlying terrain) + 2 (trees) = 3). The 'Mech's Jumping MP equals or exceeds that level (4 Jumping MP – 1 = 3), but the 'Mech could cross that path regardless of the height of the trees, as trees do not affect jumping. As such, the player may still choose either Paths III or IV.

If the 'Mech had 5 or more Jumping MP available, it could have traveled to its destination along Paths I or II, because the 'Mech's Jumping MP (5) plus the level of the starting hex (–1) would equal or exceed the level of the intervening hilly terrain (4).

Death From Above: A 'Mech cannot jump into a hex that already contains a 'Mech unless it is making a Death From Above attack against an enemy 'Mech. See page 36 for details.

Into Water: A 'Mech cannot jump directly into water Depth 1 or deeper, but can end its jump over such a hex. If it does so, it must make a Piloting Skill Roll (see p. 53). If the PSR succeeds, the 'Mech is placed standing at the bottom of the hex. If it fails, the 'Mech tumbles to the bottom instead, falling a number of levels equal to the hex's depth (halve the resulting damage; round down).

Out of Water: Jump jets cannot be fired while submerged. As such, a 'Mech standing in Depth 1 water may not fire jump jets located in its legs, and a 'Mech standing in Depth 2 or deeper water cannot jump at all. For example, a 'Mech with a Jumping MP of 5 that has one jump jet in each leg and one in each torso location may only use 3 Jumping MP when jumping out of Depth 1 water.

Mechanical Jump Boosters: This piece of equipment (see p. 116) provides Jumping MP, but operates quite differently from jump jets. A 'Mech using mechanical jump boosters to jump generates no heat, must begin and end its jump with the same facing, cannot jump down levels, can use its full Jumping MP even when submerged, and cannot execute death from above attacks. A 'Mech cannot use both jump jets and mechanical jump boosters in the same turn.

Partial Wing: This item modifies a 'Mech's jump capabilities. See page 116 for details.

PRONE BATTLEMECHS

A 'Mech might drop to the ground to take cover, or be forced to the ground due to falls. Whether it fell or chose to drop, such a Mech is prone. Prone 'Mechs rise 1 level above the underlying hex.

DROPPING TO THE GROUND

A 'Mech may choose to drop to the ground if it did not using jumping movement that turn. This action creates no additional heat, causes no falling damage, and costs 1 MP. The 'Mech drops face down with the same facing it had while standing and is thereafter prone. To regain its feet, it must attempt to stand (see *Standing Up*, p. 19).

MOVING WHILE PRONE

A 'Mech lying prone at the beginning of its movement may declare walking or running movement, but may not jump. While prone, it can only change its facing in the hex or attempt to stand (see *Standing Up*, below).

STANDING UP

A 'Mech may attempt to regain its feet when on the ground. A 'Mech may attempt to stand even if missing one leg, or one arm and one leg, or both arms. A 'Mech missing all its legs, or one leg and both arms, cannot attempt to stand.

If a 'Mech begins the Movement Phase prone, it must declare whether it will walk or run before it attempts to stand. Each attempt to stand, successful or not, costs 2 MP. A 'Mech may attempt to stand in the same Movement Phase that it fell, as long as it has enough MP left and did not jump that turn.

To stand, the 'Mech's pilot must make a successful Piloting Skill Roll (see p. 53). If the PSR fails, the 'Mech falls again and takes additional falling damage, and its pilot may also take damage as per the normal falling rules. Use the same facing it had on the ground as its initial facing when rolling on the Facing After Fall Table (see p. 57). The 'Mech may make repeated attempts to stand as long as it has the MP required for each attempt.

When a 'Mech successfully stands, it may select any facing at no cost (regardless of its facing while on the ground), and may continue to expend any remaining MP in that phase.

Four-legged 'Mechs: A prone quad 'Mech need not make a Piloting Skill Roll to stand unless one or more legs have been destroyed.

Heat: Each attempt to stand creates 1 heat point, in addition to the heat generated by the movement mode the 'Mech is using that turn.

Leg Destruction: A prone biped 'Mech with only one leg (or a prone quad 'Mech with only two legs) may still attempt to stand. However, it may only make one attempt per turn. This attempt to stand is always considered running, and can still be made even though a 'Mech with one leg can normally only walk.

As an exception to the normal rules, only one Piloting Skill Roll is ever made for this attempt, regardless of the number of PSRs that might be required by the action. All modifiers to this PSR are still cumulative, however.

Minimum Movement: A prone 'Mech with only 1 MP available can use this rule (see p. 18) to make a single attempt to stand.

CAREFUL STAND (OPTIONAL)

With this optional rule, if a 'Mech takes its time, it can improve its chances of standing up successfully. A 'Mech can spend its entire Movement Phase standing up (i.e. only one careful stand attempt can be made per turn). In this case, the 'Mech is considered to have walked.

If the 'Mech had more than 2 Walking MP available, the Piloting Skill Roll applies a –2 Target Number modifier. This modifier is not applied if the 'Mech had 2 or fewer Walking MP available.

MOVEMENT IN WATER

Water hexes have a depth that functions as a level change (see p. 16). 'Mechs entering water hexes must pay:

- the base 1 MP for entering a hex
- plus the MP cost for entering water of that depth (1 MP if Depth 1, 3 MP if Depth 2 or greater)
- plus the cost for any level change

Entering a water hex of any Depth greater than 0 forces a 'Mech to make a Piloting Skill Roll (see p. 53). This includes moving between water hexes, but not standing up or making facing changes within one. The modifier applied to this PSR depends on the hex's depth (–1 if Depth 1, +1 if Depth 3 or greater).

A 'Mech standing in Depth 1 water has its legs submerged, and has partial cover (see p. 26). Underwater 'Mechs are completely submerged: this means a Depth 2 or greater water hex if standing, or Depth 1 or greater if prone.

A 'Mech that begins the turn standing in a clear hex wishes to move into a neighboring waterway, consisting of a series of Depth 2 water hexes. Because the 'Mech wants to enter a water hex with a Depth greater than 0, the 'Mech cannot run: its options are only walking or jumping.

The 'Mech chooses to walk. The first hex requires 6 MP to enter (1 for the hex, 3 MP for entering Depth 2+ water, and 2 more MP for moving from a clear hex to a Depth 2 hex: a 2-level change). A Piloting Skill Roll is also required (no PSR modifier is applied by the water, as the hex is not Depth 3+).

If the 'Mech has enough MP left (and assuming it doesn't fail its PSR), it can then immediately continue to the next hex in the pond. This would cost 4 MP (1 for the hex, and 3 MP for entering Depth 2+ water). As the 'Mech is moving into a water hex, another PSR is required, again with no modifier for the water.

The next turn, as the 'Mech is in water, it cannot run unless it only intends to change its facing or if the first hex it moves into is out of the pond and onto land. It also could not jump, as a Depth 2+ hex means the 'Mech is submerged, and jump jets cannot be used when submerged.

'Mechs cannot enter a Depth 1 or deeper water hex while running (unless using *Minimum Movement*; see p. 18). However, a 'Mech can run and change facing in water and/or move from a water hex to a land hex.

Hull Breaches: Submerging one or more locations without armor will automatically breach those locations (see p. 65).

Jumping: To resolve jumping into and out of water, see *Jumping Movement*, page 18.

Underwater Maneuvering Units (UMUs): If a 'Mech is standing and submerged at the start of the turn, it may use its UMUs (see p. 116). When doing so, it counts as having jumped that turn, and ignores the additional MP cost for entering a water hex. This means that a water hex with no obstructions or level changes would be treated as a clear hex, costing 1 MP to enter. It always costs just 1 heat point to use UMUs (regardless of how far a 'Mech moves).

UMUs cannot be used to move from a land hex into a water hex, or vice versa, and have no effect on a 'Mech's movement when it is not completely submerged.

MOVEMENT ON PAVEMENT

Movement on pavement is largely handled in the same way as movement through clear terrain, but with a few important exceptions.

ROAD MOVEMENT

A road is simply a paved hex that passes through terrain of some other type. A 'Mech is traveling on a road if it moves from one hex to the next on that road.

'Mechs traveling on roads pay only 1 MP per hex; however, any MP costs for changing levels are still required. 'Mechs may move through prohibited terrain while traveling on a road, but must begin and end their movement on the road and remain on it while traversing such terrain.

BRIDGE MOVEMENT

Roads that cross a water hex, or span a distance in which the underlying terrain of the hex is lower than the level of the bridge, are considered bridges.

Bridges are classified as light, medium, heavy, or hardened in the same manner as buildings, and have the same range of Construction Factors (CF) (see *Urban Combat*, p. 66). If the bridge type is not defined, assume it is a medium bridge with CF 40. Bridges can be attacked in the same manner as buildings. When a bridge's CF is reduced to 0, it collapses.

Capacity: As with buildings, each hex of a bridge will only support 'Mechs with a total tonnage equal to or less than the bridge's current CF. If the current CF is exceeded, the bridge hex collapses, and 'Mechs on it suffer normal falling damage.

If a bridge covers more than a single hex, CF values are assigned to each hex. The destruction of a single hex of a multi-hex bridge does not affect any other hex in that bridge, unless more than half its total hexes have been destroyed; in this case, the entire bridge collapses. If the collapse of the final hex that destroys the whole bridge occurs due to movement, the entire bridge collapses immediately; if the final hex is destroyed by an attack, the bridge collapses at the end of the phase the attack occurred in (see *Collapse*, p. 73).

Under-Bridge Movement: A 'Mech may enter a bridge hex and be considered underneath the bridge, provided the level of the underlying hex, plus the height of the 'Mech, is equal to or less than the level of the bridge. For 'Mechs, the level of the underlying hex is the bottom of the hex.

If a 'Mech cannot move on top of the bridge, or underneath it, the bridge is treated as a building hex for the purposes of movement (see *Urban Combat*, p. 66).

SKIDDING

If a running 'Mech makes a facing change in a paved hex at any point in the turn, and then attempts to enter a new hex in the same turn, before that 'Mech actually enters the new hex its controlling player must make a Piloting Skill Roll (see p. 53) to see if the 'Mech skids. The PSR is modified based on the total number of hexes moved in the turn so far (as shown on the Piloting Skill Roll Table, p. 54, under "Skidding Movement").

If the PSR is successful, the 'Mech does not skid, and may enter the new hex and continue its movement. If it fails, the 'Mech falls (see *Falling*, p. 56); it suffers normal falling damage and then skids.

See *Skidding*, page 68, for how to resolve the skid and the damage that results.

RECKLESS MOVEMENT

Applies to: Mud, Deep Snow, Swamp, Fog, Full-Moon Night, Moonless Night (see *The Battlefield*, pp. 59-65).

The increased MP cost imposed by the environmental conditions listed above represents the extra caution needed to avoid falling in such conditions. However, players who do not wish to pay this additional cost can accept the risks and announce their intention to pass through the terrain at full speed before moving their 'Mechs.

If a 'Mech chooses to move recklessly, when it moves into its first new hex that turn, its controller must make a Piloting Skill Roll (see p. 53). If the roll fails, the 'Mech immediately falls (if this fall occurs

on pavement, the 'Mech skids and its move is over; see *Skidding*, p. 68). If the roll succeeds, the 'Mech remains upright and may move as normal. However, the player must make an additional PSR for each level change and non-clear hex through which the 'Mech passes.

Jumping: 'Mechs expending Jumping MP ignore this rule.

OTHER ACTIONS

There are a few miscellaneous actions that also occur in or in close proximity to the Movement Phase.

HIDDEN 'MECHS

If a 'Mech attempts to enter a hex occupied by a hidden enemy 'Mech (jumping over it does not count), or ends its movement adjacent to such a hex, the hidden 'Mech is revealed. A hidden 'Mech revealed in these ways may immediately make a special point-blank weapon attack against the 'Mech that revealed it. See page 82 for the full details.

At the end of the Movement Phase, any hidden 'Mech within range of an enemy 'Mech's active probe and with line of sight to that enemy 'Mech is revealed.

LIFTING ITEMS (SIMPLIFIED)

A 'Mech may lift items using its hands. A 'Mech can lift and carry around cargo weighing up to 10 percent of the 'Mech's tonnage (this is increased to 20 percent if the 'Mech mounts active triple-strength myomer; see p. 115).

Lifting Restrictions: Only 'Mechs with functioning hand actuators may lift items.

A 'Mech carrying cargo cannot fire any arm or forward-firing torso-mounted weapons, and may not make club, punch, push, or physical weapon attacks. It may still charge, kick, and execute death from above attacks.

A 'Mech suffers no movement penalties when carrying cargo, and can still use Jumping MP.

Loading and Unloading: To pick up or drop items, a 'Mech must end its Movement Phase in the same hex as the item. One item is picked up (or unloaded in the same hex as the unloading 'Mech) in the End Phase of that turn.

A 'Mech cannot make any weapon or physical attacks in a turn it loads or unloads.

Dropping Cargo: During its movement, a 'Mech may drop all its cargo in the hex it is standing in (as opposed to properly unloading it, as described above) by expending 1 MP. Unlike regular loading/unloading, this does not affect its ability to make attacks.

Dropped items may be destroyed. Roll 1D6 for each item carried: on a result of 1–3, the item is destroyed, and on a result of 4–6, the item is undamaged and left in that hex.

If a 'Mech that is lifting items loses one or both hand actuators, it automatically drops all lifted items at the end of the phase in which the damage occurred. This does not require MP.

Combat: Any fall, or any damage dealt to an arm or front torso location, also damages that 'Mech's lifted cargo. For every such point of damage applied to the carrying 'Mech, a ton of cargo (or one item, whichever is more) is destroyed. The cargo does not reduce the damage.

Claws: A 'Mech with any claws must make a Piloting Skill Roll (see p. 53) with a +2 modifier when lifting items; if the object is very fragile (such as a human being), a further +1 modifier applies (at the gamemaster's discretion or mutual player agreement). If the PSR fails, the object is effectively destroyed.

TAG DESIGNATION

If using target acquisition gear (TAG; see p. 112), all 'Mechs making attempts to designate a target do so after the end of the Movement Phase, but before the beginning of the Weapon Attack Phase (Initiative order is still followed, however).

COMBAT

After all players complete the Movement Phase, 'Mechs engage in combat. BattleMechs use two forms of combat: weapon attacks and physical attacks. Weapon attacks are made using ranged armaments such as missiles, lasers, and autocannons. For physical attacks (see p. 34), each 'Mech has a variety of options, most of which rely on the 'Mech's own weight to inflict damage.

Hidden 'Mechs: If a player plans to attack using a hidden 'Mech (see p. 82), they must reveal that 'Mech and place it on the map at the beginning of the Weapon Attack Phase.

WHAT IS A TARGET?

The target of an attack can be almost anything, even if the result will not inflict damage. For example, by firing at an empty hex, a player can expend unwanted ammunition or heat up their 'Mech to activate triple-strength myomer. Regardless of the target, all effects of an attack must be taken into account (ammunition used, heat generated, multiple-target modifiers, etc.).

You can never deliberately target a friendly 'Mech. However, an area-effect attack (AE; see p. 96) damages everything in its blast radius, even friendly 'Mechs.

Clearing Woods or Jungle: 'Mechs can target woods or jungle hexes in order to transform them into clear hexes (see p. 61).

LINE OF SIGHT

Normally, in order to attack a target, a clear line of sight (LOS) must exist between the attacker and the target. A straight line running from the center of the attacker's hex to the center of the target's hex defines the LOS between two 'Mechs. Any hexes through which this line passes lie along the LOS, even if the line barely touches the corner of a hex.

If the LOS passes exactly between two hexes, the player controlling the targeted 'Mech decides which of the two hexes lie along the LOS. If a target is not controlled by any player (for example, a building, woods, a clear hex), randomly determine which path the LOS will use. In both cases, this hex is used for all attacks between the attacker and that target for the rest of that turn (see the Line of Sight between Two Hexes diagram at right). This choice can also affect the attack direction for incoming attacks (see *Attack Direction*, p. 32).

The hexes containing the attacking and target 'Mechs are not considered when determining LOS (see *Water Hexes*, p. 23, for the sole exception to this rule).

LOS is always mutual. That is, if you can see a target, that target can see you (excepting Hidden 'Mechs, if that optional rule is in use; see p. 82).

Adjacent 'Mechs: 'Mechs in adjacent hexes always have LOS to each other, unless one 'Mech is completely underwater and a 'Mech in an adjacent hex is not (see *Terrain Modifiers*, p. 26). Likewise, if both 'Mechs are in adjacent building hexes but at different levels, LOS may not exist (see *Combat within Buildings*, p. 72).

Indirect Fire: LRMs and Thunderbolts may be fired indirectly, as long as a valid LOS does not exist to the target (see *Indirect Fire*, p. 30).

LEVELS AND HEIGHT

Apply the following rules for the purposes of terrain and LOS.

• LINE OF SIGHT BETWEEN TWO HEXES DIAGRAM •

'MECH HEIGHTS

Standing 'Mechs are 2 levels in height; prone 'Mechs are 1 level in height. 'Mechs are treated as at the level of their underlying hex plus their current height when calculating LOS.

TERRAIN HEIGHT AND DEPTH

A hex's level is marked on the map. Hexes with levels higher than 0 represents hills. Hexes with levels lower than 0 represents sinkholes.

Buildings: Buildings rise above the level of the underlying hex they occupy for a number of levels equal to the level listed for the building. For example, a Level 2 building on a Level 4 hex makes the total height of the hex Level 6.

Hexes as Targets: If firing at a hex, the level of the hex adjacent to it along the LOS from the attacker is considered to be 1 level lower than it actually is.

Water: Water hexes descend to a specific depth below the surface (from Depth 0 onwards). The depth represents the bottom of the body of water. Water intervenes for LOS purposes as if it is at the level of the surrounding terrain. A 'Mech in water stands on the bottom of the hex, at its depth; the 'Mech rises 2 levels above that depth.

Woods/Jungle: Woods and jungles rise 2 levels above the level of the underlying hex they occupy (for example, a jungle on a Level 2 hex would rise 2 levels above that, reaching Level 4). 'Mechs occupying these hexes are standing on the underlying terrain, not on top of the trees.

INTERVENING TERRAIN

Terrain between the attacker and the target that lies along the LOS (not including the hexes occupied by the attacker and target) may intervene in LOS, depending on the terrain's level relative to the attacker and target. Only terrain features that have levels, such as trees and buildings, can intervene in LOS. For example, rubble itself would not intervene, though the hex containing the rubble might (depending on its underlying level).

Terrain along the LOS between two 'Mechs intervenes if:

- The level of the terrain or feature is equal to or higher than the level of both 'Mechs; or
- The level of the terrain or feature is equal to or higher than the attacker's level and adjacent to it (regardless of the level the target is on); or
- The level of the terrain or feature is equal to or higher than the target's level and adjacent to it (regardless of the level the attacker is on).

EFFECTS OF INTERVENING TERRAIN

Again, intervening terrain does not include the hexes either the attacker or target are standing in. Intervening terrain has the following effects on line of sight.

Buildings and Bridges: Intervening building hexes block LOS; bridges, however, do not.

Woods/Jungle: Three or more points of intervening woods/jungle block LOS. Light woods/jungle is worth 1 point, and heavy woods/jungle is worth 2 points.

Hills: Intervening hills block LOS.

Partial Cover: While partial cover (see p. 26) conceals part of a 'Mech, it does not block LOS to that 'Mech.

Water: Intervening water blocks LOS unless both attacker and target are completely submerged and no other terrain intervenes.

INTERVENING 'MECHS

Intervening 'Mechs have no effect on LOS or attacks.

The LOS diagram on the right illustrates many of the principles governing line of sight.

The BattleMech in Hex A wants to attack in this turn. It is standing in a Level 0 hex, and is therefore considered to be at Level 2 for purposes of LOS. Checking LOS for the BattleMech in Hex A to the other 'Mechs shown, we find the following conditions:

LOS to the 'Mech in Hex B passes through one light woods and one heavy woods hex, and so is blocked.

LOS to the 'Mech in Hex C passes through two light woods and a heavy woods hex, and so is blocked.

The 'Mech in Hex D is standing in a Level 1 hex, and is therefore considered to be at Level 3 for LOS purposes. Even though the LOS passes through hexes 2 and 3, those woods are at Level 2 for purposes of LOS and so do not intervene. The woods in Hex 1, however, are in the LOS and are at Level 3 for purposes of LOS. Because these woods are equal to or higher than both attacker and target, they intervene. The woods in Hex 4 are equal to or higher than the attacker and adjacent to the attacker, and so they intervene as well; only two of these light woods hexes intervene, however, and so they do not block LOS.

Finally, the 'Mech in Hex E is in a Level 3 hex, within Depth 1 water, and so is at Level 4 for LOS purposes. LOS is blocked by Hex 5.

Use the diagram to practice finding LOS with the other 'Mechs. Try to determine how many targets each 'Mech can see, and compare your results to the correct results that follow: Hex B has 2 targets, Hex C has 2 targets, Hex D has 3 targets and Hex E has 0 targets.

• LINE OF SIGHT DIAGRAM •

WATER HEXES

A standing 'Mech in Depth 2 or deeper water (or a prone 'Mech in Depth 1 or deeper water) is submerged. Being submerged completely blocks LOS to and from the 'Mech in that hex, unless the 'Mech attempting to draw LOS to it is submerged as well.

See the Underwater Line of Sight Table, on page 65, for a summary of LOS involving water.

FIRING ARCS

If an attacker has LOS to its intended target, the attacking player then checks the firing arcs of his 'Mech's weapons to see which weapons can hit the target. There are four firing arcs as shown on the Firing Arcs diagram: the forward arc (in yellow), left side arc (in blue), right side arc (also in blue), and rear arc (in red).

Note that the firing arcs extend from the attacker to the edge of the playing area, and there are no "blind spots".

Prone 'Mechs: Arcs do not change if the attacker is prone.

FORWARD ARC

All weapons may fire into the forward arc unless they are rear-mounted. Arm-mounted weapons may fire into the forward arc plus the appropriate side arc.

Leg-Mounted Weapons: Leg-mounted weapons may not fire through a hex that provides the firing 'Mech with partial cover, unless the partial cover is provided by water (see *Combat in Water*, p. 27). The firing arc is always forward for forward-mounted leg weapons, and is not affected by torso twisting.

LEFT SIDE ARC

Weapons in a 'Mech's left arm may fire at targets in the left side arc and forward arc.

RIGHT SIDE ARC

Weapons in a 'Mech's right arm may fire at targets in the right side arc and forward arc.

REAR ARC

Only rear-mounted weapons may fire into the rear arc. Weapons which are rear-mounted will have an (R) beside their name on the record sheet's Critical Hit Table.

Leg-Mounted Weapons: Rear-facing leg-mounted weapons may not fire through a hex that provides the firing 'Mech with partial cover, unless the partial cover is provided by water (see *Combat in Water*, p. 27). The firing arc is always to the rear for rear-mounted leg weapons, and is not affected by torso twisting.

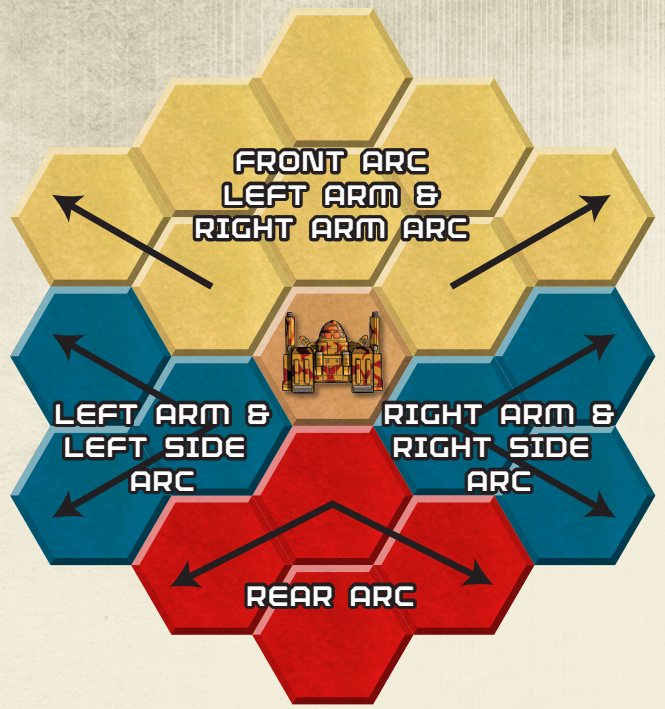
ARCS AND TORSO TWISTS

If a biped 'Mech twists its torso (see p. 25), its upper-body firing arcs are determined by the direction in which its torso is turned, not by the 'Mech's facing, as shown on the diagram. Arcs for leg-mounted weapons (and kick attacks), are always aligned with the feet.

Torso-twisting has no effect on how a 'Mech will receive damage (i.e. it only affects the 'Mech's own firing arcs; see *Attack Direction*, p. 32).

ARCS AND REVERSING (FLIPPING) ARMS

If a 'Mech flips its arms (see *Reversing (Flipping) Arms* at right), it may fire any arm-mounted weapon into the rear firing arc instead of the usual firing arcs for those weapons.



• FIRING ARCS DIAGRAM •

ATTACK DECLARATION

Next, the player declares their attacks. For each attack, the following must be announced:

- Which specific weapon is being fired
- Which specific target it is being fired at

Each weapon can make one attack a turn (though some weapons can fire multiple shots per attack). If a weapon has a choice between multiple ammunition types or attack modes (such as rapid-firing), or the player wants to make a specialized attack with it (such as an aimed shot or indirect fire), the player must announce these choices at the same time as the attack.

All attacks by all players must be declared before any are resolved.

REVERSING (FLIPPING) ARMS

A 'Mech whose record sheet does not come with hand and lower arm actuators in both arms and that does not have any weapons split between torso and arm locations can flip its arms. After flipping its arms, a 'Mech uses the rear firing arc for arm-mounted weapons, instead of the usual firing arcs.

Both arms must lack these actuators: a 'Mech with only one applicable arm cannot reverse any of its arms. If a 'Mech that can reverse its arms loses one during a game, it can still reverse the remaining arm. However, 'Mechs that lose the required actuators through damage cannot reverse their arms.

Reversing arms occurs during attack declaration. Both arms must be reversed (unless one is destroyed). A 'Mech cannot torso twist and reverse its arms in the same turn. In the End Phase, reversed arms automatically return to the front arc.

Prone 'Mechs: Prone 'Mechs may not reverse their arms.

EXPANDED ARM FLIPPING (OPTIONAL)

In standard rules, a 'Mech cannot both torso twist and reverse its arms. However, with this option, such an action is permitted. The controlling player must first announce whether a 'Mech is torso twisting or reversing its arms, and then make a Piloting Skill Roll (see p. 53). If the PSR is successful, the secondary action can occur. A failed roll does not result in a fall: instead, the second action (whether a torso twist or reversing arms) does not occur.

TORSO TWISTS

As part of each 'Mech's weapon attack declaration, a biped 'Mech can rotate its torso one hexside to the left or right while keeping its feet pointed straight ahead. This twist lasts for the remainder of the turn, affecting firing arcs for the Weapon Attack and Physical Attack Phases, but is not considered when determining hit locations.

The torso automatically returns to its forward position in the End Phase.

Four-Legged 'Mechs: Quad 'Mechs cannot torso twist.

FIRING WEAPONS

Players use their 'Mechs' armament to attempt to inflict damage on targets. Each weapon is always fired individually, even if multiple weapons of the same type are mounted in the same location.

Finding a Club: Instead of making any weapon or physical attacks that turn, a 'Mech may search rubble in the hex it occupies for a girder to use as a club. See *Club Attacks*, page 36, for more details.

STRATEGIC

G.A.T.O.R.

The attack process is not complicated—simply a matter of rolling 2D6 and trying to equal or exceed your modified Target Number. However, it's the "modified" part that can trip a player up: juggling the many potential modifiers can be imposing.

After you understand the *Target Number Modifiers* section below, you'll find that "GATOR" is a helpful mnemonic that reminds you what needs to be taken into account:

- **G** Gunnery Skill Rating of the attacker (the base Target Number for the attack). Then add:
- **A** Attacker movement modifier
- **T** Target movement modifier
- **O** Other modifiers (potentially a big category, but typically only includes woods, partial cover, and heat)
- **R** Range modifiers

You start with your Gunnery Skill Rating, then add all other applicable modifiers as indicated, and the result is your modified Target Number to roll against. In the Target Number Modifiers section that follows, modifiers are listed in GATOR order, beginning with the Attacker Movement Modifier.

If combined with the use of Movement Dice (see p. 13), attack resolution can be greatly sped up.

MAKING THE ATTACK

The base Target Number for a weapon attack is equal to the attacker's Gunnery Skill Rating (see *Skills*, p. 9).

The modified Target Number equals the base Target Number plus all applicable modifiers for range, minimum range, movement, terrain, and other factors covered in *Target Number Modifiers* below.

After you have your modified Target Number, roll 2D6 to see if the attack hits the target. If the result is equal to or greater than the modified Target Number, the attack hits.

If the modified Target Number is greater than 12, the shot automatically misses; rolling a 12 does not result in an automatic hit. If a player determines that their 'Mech's declared attack will automatically miss, they can choose not to make the attack, though another target may not be chosen in its place that turn.

If the modified Target Number is 2 or less, the shot automatically hits. Because some weapons have additional effects based on the result of the attack roll, even automatic hits may still require the player to make a roll.

Resolution Order: The attacker chooses the order in which they make attack rolls for all of their 'Mech's announced attacks. From turn to turn, the attacker can change this order.

BASE TARGET NUMBER

GATOR

The base Target Number for a weapon attack is equal to the attacker's Gunnery Skill Rating (see *Skills*, p. 9).

TARGET NUMBER MODIFIERS

The base Target Number may be modified by several factors (as showcased in the Strategic: G.A.T.O.R. sidebar; see above).

ATTACKER MOVEMENT MODIFIER

GATOR

A moving attacker's Target Number is modified by their own movement using the values in the Attack Modifiers Table (see p. 28). The attacker's movement modifier is based on the movement mode it used in the turn (Walking, Running, or Jumping), not the actual MP they expended or distance they moved.

TARGET MOVEMENT MODIFIER

GATOR

A moving target is harder to hit, and so an attacker's Target Number is modified by its target's movement using the values in the Attack Modifiers Table (see p. 28). The target movement modifier (often abbreviated as "TMM") is based on the number of hexes traversed by the target this turn, not the number of Movement Points it spent.

If the target moved both backward and forward in the turn, base the TMM on the number of hexes moved from the hex in which the 'Mech last reversed its movement. For example, if the target moved backward three hexes and then forward two hexes, the target movement modifier would be based only on the final two hexes of movement, resulting in a TMM of 0.

If a target jumped this turn, an attacker must also apply a +1 modifier to the attack's Target Number, in addition to the modifier for the number of hexes the target moved.

If using Movement Dice (see p. 13), the color of the die indicates this modifier.

A JagerMech *is attacking with its AC/5s. The* JagerMech *used Running MP this turn, so it must add an attacker movement modifier of +2 to its Target Number. The target traveled five hexes, creating a +2 target movement modifier. The range to the target is two hexes, which is short range for the AC/5s. However, the AC/5 has a minimum range of 3. This means the Target Number of an attack at a range of three hexes would be modified by +1, while an attack made at two hexes—such as this attack—is modified by +2. The modified Target Number for the* JagerMech*'s AC/5s is 10: 4 (Gunnery Skill Rating) + 2 (Attacker Movement) + 2 (Target Movement) + 2 (Minimum Range) = 10.*

Meanwhile, an Atlas *is firing its LRMs. The range to its target is four hexes—short range for LRMs, but they also have a minimum range of 6. This means a +3 minimum range modifier applies to the attack. The* Atlas *did not move, and so no Attacker Movement Modifier is applied. The target spent 5 Running MP, but only traveled two hexes, and since the Target Movement Modifier counts only the number of hexes moved, no TMM applies. The modified Target Number for the LRM attack is 7: 4 (Gunnery Skill Rating) + 3 (Minimum Range Modifier) = 7.*

TERRAIN MODIFIERS

GATOR

Terrain can affect the probability of a successful shot by forcing the attacker to account for intervening land features and partial cover.

Death From Above: This attack (see p. 36) ignores terrain modifiers.

Light Woods/Jungle: Add a +1 modifier to an attack's Target Number if the target is in a light woods or light jungle hex. Apply a further +1 modifier per hex of light woods or light jungle intervening between the attacker and target (see *Intervening Terrain*, p. 22).

Heavy Woods/Jungle: Add a +2 modifier to an attack's Target Number if the target is in a heavy woods or heavy jungle hex. Apply a further +2 modifier per hex of heavy woods or heavy jungle intervening between the attacker and target (see *Intervening Terrain*, p. 22).

Partial Cover: Attacks against a target in partial cover (see below) receive a +1 Target Number modifier.

Water: A standing 'Mech in Depth 1 water receives partial cover, which provides a +1 Target Number modifier to attacks against it (see *Partial Cover Modifier* below).

PARTIAL COVER MODIFIER

GATOR

To receive partial cover, a target 'Mech must be standing adjacent to a hex one level higher than its current hex. This adjacent hex can be a hill or a building (but not a bridge), but must lie along the LOS between the attacker and target. For example, a standing 'Mech adjacent to a Level 1 hex would receive partial cover if an attacker traces LOS through that hex.

The Line of Sight diagram on page 23 illustrates some examples of partial cover.

The 'Mech in Hex C has partial cover from the 'Mechs in Hexes A and B. This is because it is adjacent to a level that is one level below its own LOS height, along the LOS between the 'Mech and those two 'Mechs, and the LOS height of those two 'Mechs is equal to or less than the LOS height of the 'Mech.

The 'Mech in Hex D has partial cover from the 'Mechs in Hexes A and B for the same reason. For the 'Mech in Hex B, its target in Hex D would only receive partial cover if the 'Mech in Hex B declared its attacks first—LOS passes exactly between the hexes that would allow the partial cover to intervene, meaning the target chooses the partial cover hex.

However, if the attacker has an LOS level higher than the target's LOS level, partial cover does not apply. In other words, an attacker firing downhill (regardless of how many hexes lie between attacker and target) negates its target's partial cover.

Attacks against a target with partial cover apply a +1 Target Number modifier. In addition, if the hit location roll indicates a leg, the attack strikes the cover instead. In that event, if the partial cover is a building, the hit damages the building; otherwise, the attack does not deal damage.

Four-Legged 'Mechs: For quad 'Mechs, any hit to a leg—front or rear—constitutes a leg hit.

Water: Depth 1 water normally provides partial cover to a standing 'Mech, even versus physical attacks. However, if an attack could not hit the legs in the first place (for example, if the attack uses the Punch Location Table), partial cover is not applied.

If an underwater 'Mech attacks a standing 'Mech in Depth 1 water, the target still has partial cover, but instead of the normal procedure, an attack striking any location *except* for a leg strikes the intervening terrain.

Woods/Jungle: These terrain types do not provide partial cover.

HEAT MODIFIER

GATOR

The attacker's Target Number may suffer a modifier due to its heat build-up, as discussed in *Building up Heat* (p. 50). The Heat Data section of the record sheet summarizes the modifiers for the effects of heat build-up.

Target Number modifiers due to heat never apply to physical attacks.

WEAPON & EQUIPMENT MODIFIERS

GATOR

Some weapons and equipment provide modifiers to attacks. If this is the case, it will be noted in that item's description (see *Weapons and Equipment*, beginning on p. 96).

DAMAGE MODIFIERS

GATOR

The attacker's Target Number may suffer additional modifiers for damage to its arms or sensors, as discussed in *Critical Hits* (p. 45).

Lower Arm Actuators: 'Mechs whose record sheet did not come with lower arm actuators do not suffer actuator damage modifiers to weapon attacks, though the absent actuator still affects physical attacks.

IMMOBILE TARGET MODIFIER

GATOR

If firing at an immobile target, apply a –4 Target Number modifier.

The most common immobile targets are buildings; hexes; and 'Mechs shutdown, abandoned, missing all four limbs, or with an unconscious MechWarrior. Do not apply this modifier unless a target is specifically stated to be immobile, even if it has 0 MP.

Aimed Shots: This specialized attack can be declared against immobile targets. See p. 30.

MULTIPLE TARGETS MODIFIER

GATOR

A 'Mech may engage more than one target in a turn. The only limit on the number of targets is how many weapons a 'Mech mounts.

During the attack declaration step, the attacker designates one target as the primary target. If any declared targets are in the attacker's forward arc, one must be the primary target. If the attacker is declaring attacks only against targets in the side and rear arcs, they may choose any of them as the primary target.

All targets other than the primary target, no matter how many, are secondary targets. Against secondary targets in the forward arc, apply a +1 Target Number modifier; against secondary targets in the side and rear arcs, the modifier is +2.

These rules apply regardless of where the weapons are mounted. For example, a 'Mech with three medium lasers in its right arm fires one medium laser at a target in its front arc (designated as the primary target), and the second and third medium lasers at separate targets in its right side arc. The primary target receives no multiple targets modifier, while both secondary targets in the side arc each receive a +2 Target Number modifier.

Multiple Firing Arcs: Through torso twisting, a 'Mech with both upper-body and leg-mounted weapons may have more than one firing arc at once. Regardless of its number of firing arcs, a 'Mech may only have one primary target each turn.

Physical Attacks: The multiple targets modifier does not apply to physical attacks.

Stealth Armor: A 'Mech with an active stealth armor system cannot be attacked as a secondary target (see *Stealth Armor*, p. 115).

RANGE MODIFIER

GATOR

The farther away a target, the harder it is to hit. Count the hexes between attacker and target, taking the shortest path (start with the hex adjacent to the attacker, and include the target's hex). The total is the range to the target.

Each weapon's range is divided into range brackets: short, medium, and long. For example, a PPC has a range of 18 hexes. Its short-range bracket is "1-6", meaning that any attack made with a PPC against targets 6 hexes away or less is in the PPC's short range.

The range bracket a target is in determines the range modifier for an attack with that weapon against that target. A short-range shot does not modify the attack's Target Number. A medium-range shot adds a +2 Target Number modifier, while a long-range shot adds a +4 modifier.

Levels: Level differences are ignored when calculating range. A target one hex away but 99 levels higher than the attacker is still one hex away when determining range and range modifiers.

MINIMUM RANGE MODIFIER

GATOR

Some weapons, such as PPCs and long-range missiles (LRMs), are designed to be fired at long-range targets. If a target is too close, hitting it with such weapons is more difficult.

A weapon's minimum range, if any, appears on the Weapons and Equipment Tables beginning on page 120. If a target is within this range, use the following formula to determine the minimum range modifier: [Min. Range] – [Target Range] + 1. For example, if a 'Mech fires a PPC at a target three hexes away, the minimum range modifier would be +1. If the target is two hexes away the modifier is +2, and if one hex away the modifier is +3.

COMBAT IN WATER

A 'Mech standing in Depth 1 water may attack 'Mechs in water with its leg-mounted weapons. It may also attack 'Mechs that are not underwater, using weapons mounted in any other location.

Underwater 'Mechs can attack a standing 'Mech in Depth 1 water; the standing 'Mech has partial cover (see *Partial Cover Modifier*, p. 26), but instead of the normal procedure, an attack striking any location *except* for a leg is ignored.

See *Underwater Combat*, page 64, for the full details involving underwater combat.

Prone 'Mechs: A 'Mech prone in Depth 1 water is fully submerged.

• MINIMUM RANGE DIAGRAM (PPC EXAMPLE: BASE TARGET NUMBER + MINIMUM RANGE MODIFIER) •

ATTACK MODIFIERS TABLE

All Attacks: Weapons and Physical	Modifier
Attacker	
Movement (modifiers are cumulative)	
Stationary	None
Walked	+1
Ran	+2
Jumped	+3
Prone	+2 (does not apply to four-legged 'Mechs)
Skidding	+1
Terrain *(modifiers are cumulative)*	
Light Woods/Jungle	+1 per intervening hex; +1 if target in light woods/jungle
Heavy Woods/Jungle	+2 per intervening hex; +2 if target in heavy woods/jungle
Water*	
Depth 1	+1; see *Partial Cover*, p. 26
Depth 2	Underwater 'Mechs cannot target units that are not underwater (see *Terrain Modifiers*, p. 26).
Partial Cover	+1; see *Partial Cover*, p. 26
Target *(modifiers are cumulative)*	
Prone	–2 from adjacent hex; +1 from all others†
Immobile	–4
Skidding	+2
Movement	
Moved 0–2 hexes	0
Moved 3–4 hexes	+1
Moved 5–6 hexes	+2
Moved 7–9 hexes	+3
Moved 10–17 hexes	+4
Moved 18–24 hexes	+5
Moved 25+ hexes	+6
Jumped	+1 additional
Stealth Armor	+1 at medium range, +2 at long range

Weapon Attacks Only	Modifier
Attacker	
'Mech Damage	
Sensor hit	+2
Shoulder hit	+4 for weapons in arm, disregard other damaged actuators in arm
Upper or lower arm actuator (each)	+1 for weapons in arm
Heat	
0–7	None
8–12	+1
13–16	+2
17–23	+3
24+	+4
Making Indirect Fire attack	+1 (+2 if the spotter also attacked this turn)
Spotting for Indirect Fire	+1

ATTACK MODIFIERS TABLE (CONTINUED)

Weapon Attacks Only (Continued)	Modifier
Range and Terrain	
Range	
Short	None
Medium	+2
Long	+4
Minimum range	[Minimum] – [Target Range] +1 (see *Minimum Range Modifier*, p. 27)
Each Intervening Hex/Level between Attacker and Target (as well as target's hex) in same multi-hex building	+1 per hex/level (maximum +3; see *Combat Within Buildings*, p. 72)
Target	
Secondary target in forward arc	+1
Secondary target in side or rear arc	+2
Weather Conditions	
Heavy Fog	+1 to all attacks of the pulse (P) and direct-fire energy (DE) types
Light	Modifiers reduced if the target has high heat (see p. 62)
Dusk/Dawn	+1; Ignore if the target is illuminated
Full Moon Night	+2; Ignore if the target is illuminated
Moonless Night	+3; Ignore if the target is illuminated
Moderate/Heavy Rain	+1
Torrential Downpour	+2
Moderate/Heavy Snow	+1
Wind	
Moderate Gale	+1 to all attacks of the missile (M) type (see p. 97)
Strong Gale	+2 to all attacks of the missile (M) type, and +1 to all attacks of the direct-fire ballistic (DB) type (see pp. 96-97)
Storm	+3 to all attacks of the missile (M) type, and +2 to all attacks of the direct-fire ballistic (DB) type (see pp. 96-97)

Physical Attacks Only	
Attacker	
'Mech Damage	
Shoulder hit	No punching or physical weapon attack with arm; no clubbing attacks; +2 to pushing attack (each)
Upper or lower arm actuator hit (each)	+2 to punching and physical weapon attack with arm; half damage for punching attack with arm; +2 to clubbing attacks
Hand actuator hit	+1 to punching attack with arm; no clubbing attacks; no physical weapon attack with arm
Hip actuator hit	No kicking attacks
Upper or lower leg actuator hit (each)	+2 and half damage to kicking attack with that leg
Foot actuator hit	+1 to kicking attack with that leg
Other Modifiers	
Charging attack	Modify for relative Piloting Skills (see *Comparative Modifier*, p. 34)
Unintentional charge	+3
Death from above attack	Modify for relative Piloting Skills (see *Comparative Modifier*, p. 34)
Weather Conditions	
Moonless Night	+1; Ignore if the target is illuminated

*See *Terrain Modifiers*, p. 26, for exceptions.
† Does not necessarily apply to Four-legged 'Mechs (see *Firing While Prone*, p. 30).

PRONE 'MECHS

Prone 'Mechs may still participate in combat.

Water: A 'Mech prone in Depth 1 water is fully submerged.

FIRING WHILE PRONE

A prone 'Mech may fire some of its weapons, as long as neither of its arms has been destroyed.

The attacker chooses one arm: no weapons in that arm can fire that turn (this includes weapons split between that arm and the corresponding torso; which arm is chosen may be changed each turn). No leg-mounted weapons can be fired either. All other weapons may be fired, using the same arc as if it were standing and facing that direction. A prone 'Mech cannot torso twist.

Add a +2 Target Number modifier to weapon attacks made while prone, in addition to any other standard modifiers. For example, if a 'Mech runs (+2 modifier) and then drops prone in the same turn it makes a weapon attack, it receives a +4 Target Number modifier.

Four-Legged 'Mechs: Provided it still has all four legs, and has taken no critical hits to any hip actuator, a prone quad 'Mech fires as though it were standing (the +2 modifier for firing when down does not apply, and it may fire leg-mounted weapons).

One-Armed Prone Fire (Optional): Under this optional rule, a prone 'Mech with one arm destroyed may still prop itself up using its intact arm and fire any non-limb mounted weapons. Apply a +1 Target Number modifier (in addition to the standard prone modifier) to all shots made in this fashion.

ATTACKING PRONE 'MECHS

A prone 'Mech makes an easier target for opponents in adjacent hex, but a more difficult target at longer ranges. Apply a –2 Target Number modifier to any attack made against a prone 'Mech from an adjacent hex. If the attacker is not adjacent, apply a +1 modifier.

For example, if a 'Mech runs seven hexes and then drops prone, attacks against it by non-adjacent 'Mechs receive a +4 Target Number modifier (+3 for entering seven hexes, +1 for firing at non-adjacent prone 'Mech = 4); adjacent 'Mechs would receive a +1 Target Number modifier (+3 for entering seven hexes, –2 for firing at an adjacent prone 'Mech = 1).

SPECIALIZED ATTACKS

Several specialized attacks, such as indirect fire, have their own rules and Target Number modifiers, as outlined below.

AIMED SHOT

Players may announce that they are aiming for a specific hit location when declaring a weapon attack, but only against immobile targets (see *Immobile Target Modifier*, p. 27). The following weapon types cannot make an aimed shot: Area-Effect, Cluster, or Flak (see the Weapon and Equipment tables, beginning on p. 121, to find a weapon's type; see p. 96 for an explanation of each type). Additionally, indirect fire attacks and Rapid-Fire attacks firing more than one shot cannot be aimed shots.

Apply the –4 immobile Target Number modifier to the attack (unless aiming for the head; see below). If the attack hits, the attacker rolls 2D6: on a 6, 7, or 8, the shot hits the designated location. If not, the attacker rolls normally on the appropriate Hit Location Table (and so may hit the designated location after all).

This rule cannot be used with physical attacks.

Head Shots: If aiming at a 'Mech's head, the immobile target modifier is *not* applied, *and* an additional +3 modifier is added.

Partial Cover: If a target has partial cover, you can only aim for locations that are not behind cover. Do not apply the Target Number modifier for partial cover, and if a leg location is rolled when assigning a hit, re-roll until a non-leg hit location is rolled.

Targeting Computer: A targeting computer allows aimed shots against non-immobile targets. In this case, Pulse weapons also cannot be used, the standard –1 Target Number modifier for a targeting computer is ignored, and a +3 modifier is applied instead. Whether the target is immobile or not, aimed shots aided by a targeting computer in any way may not target the head. See page 114 for the full details.

CLEARING WOODS OR JUNGLE

Weapon attacks can clear wooded and jungle hexes (see *Clearing Woods and Jungle*, p. 61).

INDIRECT FIRE

LRM and Thunderbolt launchers may be fired indirectly. Indirect fire allows a 'Mech without a direct line of sight to a target to attack that target. An attacker with valid LOS to a target cannot make an indirect fire attack against that target.

Another friendly 'Mech must have a valid line of sight to the target: this friendly 'Mech is referred to as the spotter. In order to serve as a spotter, a 'Mech must not have charged or launched a Death From Above attack that turn; any other action is fine. A spotter can spot for any number of attackers against a single target, but can only spot to one target a turn.

The base Target Number is the attacker's Gunnery Skill. Use the following modifiers:

- All standard modifiers for attacker and target movement;
- All standard modifiers for the spotter's movement;
- Terrain modifiers and partial cover based on line of sight from the spotter, not the firing 'Mech. Some scenarios allow an indirect attack without requiring a spotter; in such scenarios, terrain modifiers are ignored (though valid LOS from attacker to target still cannot exist);
- +1 for indirect fire;
- Range modifier based on the range between the attacker and target, including minimum range modifiers.
- Finally, if a spotter makes any attacks during the Weapon Attack Phase of a turn that it also spots, apply a +1 Target Number modifier to those attacks, as well as an additional +1 modifier to the indirect fire attack.

Aimed Shots: No indirect fire attack may be an aimed shot.

Artemis FCS: No Artemis FCS bonuses apply to an indirect fire attack.

Narc Beacons: A target with an attached Narc homing pod (see p. 108) does not require a spotter to be the target of indirect fire from an attacker firing Narc-enabled missiles (see p. 107). If a spotter is not used, terrain modifiers do not apply to the attack, but the +2 modifier to the Cluster Hits Table roll that a Narc homing pod normally provides is lost. If a spotter is used, apply both the standard terrain modifiers and the +2 Cluster Hits Table modifier.

Partial Cover: Damage from indirect fire always strikes the target and not the partial cover, even if it hits a leg location; see

Partial Cover Modifier, p. 26). The exception is if the partial cover is provided by water: in this case, the indirect fire strikes the water and does no damage, unless it is a weapon of the AE (Area-Effect) type.

Semi-Guided Missiles: If their target has been designated by friendly TAG (see p. 113), these munitions ignore the target movement modifier. If fired indirectly, they also ignore all indirect fire, spotter, and terrain modifiers.

TAG: A 'Mech that hits a target with target acquisition gear (TAG; see p. 113) also spots the target for indirect fire; this is the 'Mech's one allowed spot for the turn (the reverse is not true: just spotting a target in no way benefits TAG-guided munitions). If a 'Mech uses TAG against a target and misses, the 'Mech can still attempt to spot any target for indirect fire in the normal fashion.

Torpedoes: Long-range torpedoes may be fired indirectly underwater, so long as both the torpedo launcher's location and target are underwater. The entire attack must take place submerged in the same body of water.

ROLLING TO HIT

Once the player has determined all Target Number modifiers for the attack, they make a roll to see if the attack is successful. For each weapon attack, the player rolls 2D6. If the result is equal to or greater than the modified Target Number, the attack succeeds.

Players choose the order they roll, and the order they resolve the damage (which can be different), for all their 'Mech's declared attacks; resolve all attacks against one target before moving on to attacks by the same 'Mech against another target. From turn to turn, this order can differ at the player's discretion.

For example, in Turn 1, a walking 'Mech (Gunnery Skill 4) fires all its forward-mounted weapons at one target. Its controller chooses the order to make the attack rolls, as normal. The player also fires two rear-mounted medium lasers at a second target, but must first resolve all fire against the first target.

Its Ultra AC/10 has a modified Target Number of 11: 4 (Gunnery Skill) + 1 (attacker movement) + 2 (target movement) + 1 (partial cover) – 1 (targeting computer) + 4 (long range) = 11.

Its large pulse laser has a modified Target Number of 7: 4 (Gunnery Skill) + 1 (attacker movement) + 2 (target movement) + 1 (partial cover) – 2 (pulse weapon modifier) – 1 (targeting computer) + 2 (medium range) = 7.

Its LB 5-X AC has a modified Target Number of 9: 4 (Gunnery Skill) + 1 (attacker movement) + 2 (target movement) + 1 (partial cover) – 1 (LB-X firing cluster ammo) + 2 (medium range) = 9.

Its LRM-15 has a modified Target Number of 10: 4 (Gunnery Skill) + 1 (attacker movement) + 2 (target movement) + 1 (partial cover) + 2 (medium range) = 10.

Its two medium lasers fired at the secondary target each have modified Target Numbers of 9: 4 (Gunnery Skill) + 1 (attacker movement) + 1 (target movement) + 2 (secondary target in rear arc) – 1 (targeting computer) + 2 (medium range) = 9. Each medium laser is rolled separately.

AMMUNITION EXPENDITURE

Ballistic and missile weapons have a limited amount of ammunition. Weapons that require ammunition indicate the number of shots available for that weapon per ton of ammo carried in the Shots Per Ton column of the Weapons and Equipment Tables (see p. 121).

SHOTS

All weapons that require ammunition have their ammo stored in ammo bins. Each ammo bin provides a varying number of shots, depending on the weapon. For example, one ton spent on ammo provides an ammo bin containing twenty shots for an AC/5, or five shots for an AC/20. Missile ammunition works differently, in that a single shot for a missile launcher is always one firing of all the missile tubes of that launcher. For example, a ton of SRM 4 ammo provides an ammo bin containing twenty-five shots (with four missiles fired every shot). A single ton of LRM 20 ammo provides an ammo bin containing six shots (with twenty missiles fired every shot). Put simply, each time a weapon that requires ammunition fires, regardless of its type or size or number of missile tubes, it uses one shot of that weapon's ammunition.

A weapon can draw ammo from any ammo bin that carries the exact ammunition for that weapon. The ammo need not be in the same location as the weapon on the Critical Hit Table of the 'Mech Record Sheet. For example, an LRM 15 in the left arm of a 'Mech can use LRM 15 ammo carried in any location, but cannot use LRM 5, 10, or 20 ammo. In addition, if multiple ammo slots of the correct type exist, a player can draw ammo from any slot desired in a turn, switching slots each turn at their discretion. For example, take a 'Mech with an LRM 15 and three LRM 15 ammo bins: two in the right arm and one in the left torso. The 'Mech fires the LRM 15 in each of three consecutive turns. Each turn, its controller can remove one shot from any one of the three LRM 15 ammo bins.

Similarly, multiple weapons of the exact same type (e.g., all LRM 5s, or all LRM 15s, but not all LRMs in general) can share ammunition bins. For example, a 'Mech with two AC/5s can have just one ton of AC/5 ammo to share between both, and firing both means that two shots are drawn from the single ammo bin.

As ammunition can explode or just be lost when a location is destroyed, it is very important to track which bin each shot is fired from. For 'Mechs with multiple ammo bins for a single weapon type, be careful not to make the mistake of assigning all ammunition to a single "pool". For example, if your 'Mech has three tons of AC/5 ammo (20 shots per ton), you should not write on your record sheet that the 'Mech has 60 AC/5 shots. Instead, remember that you have three separate bins of 20 shots each, with each bin's ammo count recorded separately on the Critical Hit Table.

Ammunition Use Timing: Ammo expended in a turn is marked off when attack declarations are made.

Cluster Attacks: Though a cluster weapon (see p. 96) fires multiple projectiles, each firing still only uses one shot.

Rapid-Fire Attacks: Rapid-fire weapons (see p. 97) can fire multiple shots in a single attack. For example, a rotary AC/5 can fire between one and six shots in a single turn as its attack. One ton of ammo provides a rotary AC/5 with 20 shots. A player could fire it at a rate of one shot per turn for twenty turns, or fire it three times at a rate of six shots in three different turns (consuming 18 shots) or any combination thereof.

The ability to draw from any appropriate ammo bin also applies to rapid-fire weapons. For example, a 'Mech mounting a rotary AC/5 with three different ammo slots of the correct type can rapid-fire six shots in a single turn and then mark off all six shots in any combination across the three different ammo slots (two shots in each, all six shots in one, three shots in two, and so on).

HIT LOCATION

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

ATTACK DIRECTION

When an attack hits a 'Mech, it hits from the target's front, rear, left, or right side. Use the direction of a standing 'Mech's feet to determine its facing, disregarding any torso twists it has made that turn.

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 Attack Direction Diagram to find the side of the 'Mech hit by the attack. If the straightedge crosses at the intersection of two hexsides, the target chooses which side is hit by the attack before the attacking player makes the hit location roll.

Buildings: Attacks against buildings need not determine attack direction or hit location. Detailed explanations for assigning damage to buildings appear in *Urban Combat* (see p. 66).

Prone 'Mechs: If the target 'Mech is prone, use the hexside the top center of the 'Mech is pointing at as its facing. Any damage to a prone 'Mech from outside sources such as weapons fire is treated as if the 'Mech was standing with that facing.

• ATTACK DIRECTION DIAGRAM (WHITE HEXES = TARGET'S CHOICE) •

DETERMINING HIT LOCATION

To determine the location of a hit, the player rolls 2D6 and consults the appropriate column of the Hit Location Table (see p. 33); locations for four-legged 'Mechs appear in parentheses on the table.

As with resolving attack rolls, the attacker chooses the order in which they determine hit locations (and resolve damage to the target) for all of their 'Mech's announced attacks. From turn to turn, the attacker can change this order.

It is vital that every hit location roll be made one at a time. If you hit with multiple weapons in a single attack, it is tempting to just roll a bunch of dice and so try to resolve all hit locations at once. This is wrong, as the order in which attacks hit is very important, even if you hit with multiple of the same weapon. This is explained further in the *Damage* chapter (beginning on p. 41).

Cluster Attacks: After each hit by a cluster weapon, a roll is made on the Cluster Hits Table (see p. 33) to determine the number of projectiles in the shot that actually strike the target. Those that hit are broken up into a series of damage groupings, and then a separate hit location roll is made for each grouping (see *C: Cluster*, p. 96).

Critical Hit: A roll of 2 when determining hit location creates the chance for a critical hit in the torso location rolled, even if the armor remains intact in that location (see *Through-Armor Critical Hit*, under *Critical Hits*, p. 45).

Partial Cover: Remember that, as described in *Partial Cover Modifier* (see p. 26), if a 'Mech has partial cover and the hit location of an attack against that 'Mech indicates a leg, the attack strikes the cover instead (unless the attack came from underwater; see below). If the partial cover is a building, the hit damages the building.

Rapid-Fire Attacks: A separate hit allocation is made for each shot that hits (see p. 97 for details on Rapid-Fire weapons).

Water: If an underwater 'Mech attacks a standing 'Mech in Depth 1 water, the target still has partial cover (see *Partial Cover Modifier*, p. 26), but instead of the normal procedure, an attack striking any location *except* for a leg is ignored.

DAMAGE RESOLUTION

Only after all weapon attacks have been made is the damage caused as a result of those attacks applied. As such, damage dealt in a Weapon Attack Phase never affects attacks made that same phase (the attacks are all made before the gameplay effects of damage caused as a result is applied).

All Piloting Skill Rolls required due to weapon attacks are made at the end of the Weapon Attack Phase (i.e. after all attacks that phase), applying any modifiers resulting from damage inflicted that phase. See page 53 for details. Once this is done, players then proceed to the Physical Attack Phase.

See the *Damage* chapter, pages 41-49, for how to resolve damage.

CLUSTER HITS TABLE

Roll (2D6)	Weapon Size																												
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40
2	1	1	1	1	2	2	3	3	3	4	4	4	5	5	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10	12
3	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10	12
4	1	1	2	2	3	3	4	4	4	5	5	5	6	6	7	7	8	8	9	9	9	10	10	10	11	11	11	12	12	18
5	1	2	2	3	3	4	4	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
6	1	2	2	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
7	1	2	3	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
8	2	2	3	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
9	2	2	3	4	5	6	6	7	8	9	10	11	11	12	13	14	14	15	16	17	18	19	20	21	21	22	23	23	24	32
10	2	3	3	4	5	6	6	7	8	9	10	11	11	12	13	14	14	15	16	17	18	19	20	21	21	22	23	23	24	32
11	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40
12	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40

'MECH HIT LOCATION TABLE

Roll (2D6)	Left Side	Biped (Four-legged) Front/Rear	Right Side
2*	Left Torso [critical]	Center Torso [critical]	Right Torso [critical]
3	Left Leg (Left Rear Leg)	Right Arm (Right Front Leg)	Right Leg (Right Rear Leg)
4	Left Arm (Left Front Leg)	Right Arm (Right Front Leg)	Right Arm (Right Front Leg)
5	Left Arm (Left Front Leg)	Right Leg (Right Rear Leg)	Right Arm (Right Front Leg)
6	Left Leg (Left Rear Leg)	Right Torso	Right Leg (Right Rear Leg)
7	Left Torso	Center Torso	Right Torso
8	Center Torso	Left Torso	Center Torso
9	Right Torso	Left Leg (Left Rear Leg)	Left Torso
10	Right Arm (Right Front Leg)	Left Arm (Left Front Leg)	Left Arm (Left Front Leg)
11	Right Leg (Right Rear Leg)	Left Arm (Left Front Leg)	Left Leg (Left Rear 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. 46.

PHYSICAL ATTACKS

Physical attacks take place in the Physical Attack Phase. This phase occurs after the Weapon Attack Phase is complete. As such, all weapon fire, as well as all damage and effects from that fire, is resolved before any physical attacks are made in a turn.

'Mechs can make seven different types of physical attacks: charging (see p. 35), clubbing (see p. 36), death from above (DFA) (see p. 36), kicking (see p. 38), physical weapon attacks (see p. 38), punching (see p. 38), or pushing (see p. 40).

In order to make a physical attack, a 'Mech must be adjacent to its target (unless specified otherwise) and the target must be in a valid arc, as described in the rules for each attack.

The rules for physical attacks assume that attacker and target are 'Mechs standing at the same level. Special rules regarding different levels or prone 'Mechs appear below.

Displacement: A 'Mech can only be the target of one charge, death from above, or push attack in a turn. If one of these attacks is declared against a 'Mech, it cannot be targeted by any other attack of these types that turn.

Initiative and Displacement: If one 'Mech's charge, push, or DFA attack would displace the target of another 'Mech's physical attack, the 'Mech with the lower Initiative (i.e. the first to move) resolves its physical attack first. If both attackers are on the same side, the controlling player(s) may determine which attack is resolved first.

If no valid target exists, the attack automatically fails.

Multiple Physical Attacks: A 'Mech may only make a single type of physical attack in a single turn. Even if a 'Mech mounts two physical weapons (identical or otherwise), it can only make a single physical weapon attack, unless the weapon's rules specify otherwise (such as with claws). However, when making a single punch attack, a player can punch with one or two arms (see *Punch Attacks*, p. 38).

MAKING A PHYSICAL ATTACK

The base Target Number for a physical attack is equal to the attacking 'Mech's Piloting Skill Rating (see *Skills*, p. 9).

The modified Target Number equals the base Target Number plus the modifier for the specific physical attack as noted on the Physical Attack Modifiers Table below. All standard modifiers for weapon attacks apply; the sole exceptions are heat and sensor modifiers, which never apply.

Physical attacks are not Piloting Skill Rolls: modifiers that only affect Piloting Skill Rolls do not affect physical attacks, and vice versa.

As with weapon attacks, if the modified Target Number is 2 or less, the physical attack automatically hits. If the modified Target Number is greater than 12, the physical attack automatically misses: in this case, the player can choose not to make the attack, thereby avoiding the possible need to make a Piloting Skill Roll for a failed attack.

PHYSICAL ATTACK MODIFIERS TABLE

Attack Type	Modifier
Charging	+0
Clubbing	–1
Death From Above (DFA)	+0*
Kicking	–2
Punching	+0
Pushing	–1
Physical Weapon	See p. 38

*All the normal attack modifiers apply, including the attacker's jumping movement, but the roll is not modified for terrain.

COMPARATIVE MODIFIER

Whenever a 'Mech charges or conducts a death from above attack on another 'Mech, subtract the target's Piloting Skill from that of the attacker's, and use the result as a modifier to the Target Number. This applies even if the target is unconscious.

CRITICAL DAMAGE

Critical damage to a 'Mech's arms or legs adds modifiers to the Target Numbers of physical attacks. See the Attack Modifiers Table, page 28, for a list of these modifiers.

DIFFERENT LEVELS

The rules for punching, clubbing, physical weapon, kicking, and charging attacks assume that the opposing 'Mechs are at the same level.

A 'Mech may make a physical attack against another 'Mech only if the level of the underlying hexes of both 'Mechs are within one level of each other. The Different Levels Table shows which types of physical attacks can be made in various situations. Players must use different Hit Location Tables to determine the location of damage from punching, clubbing, physical weapon, or kicking attacks against an opponent on various levels.

DIFFERENT LEVELS TABLE

Target is:	Allowed Physical Attack
Standing 'Mech 1 level higher	Charge, Punch (Kick Table), Club (Kick Table), Physical Weapon (Kick Table)
Standing 'Mech 1 level lower	Charge, Kick (Punch Table), Club (Punch Table), Physical Weapon (Punch Table)
Prone 'Mech 1 level higher	Punch, Club, Physical Weapon
Prone 'Mech 1 level lower	None

Note: A 'Mech can always make a death from above attack if it has the necessary Jumping MP, provided the target is valid.

PHYSICAL ATTACKS AND PRONE 'MECHS

Prone 'Mechs cannot make physical attacks against other 'Mechs.

Kicks and death from above attacks may be made against a prone 'Mech, as can club and physical weapon attacks. Prone 'Mechs are always treated as adjacent to their attacker for these purposes (and thus the attacker gains the –2 Target Number modifier for attacking an adjacent prone 'Mech).

Determine the location of successful attacks using the appropriate column of the Hit Location Table (see p. 33). Always determine damage inflicted by death from above attacks against prone 'Mechs using the Rear column of the table.

Different Levels: A prone 'Mech one level higher than the attacking 'Mech can also be hit by punch, club, and physical weapon attacks. These attacks also use the Hit Location Table (unless noted otherwise for physical weapon attacks). A prone 'Mech one level lower may not be the target of a kick.

PHYSICAL ATTACKS AND WATER

A 'Mech standing in Depth 1 water may make any physical attack. However, a physical attack cannot be made against a fully-submerged 'Mech, unless the attack begins underwater as well.

For example, a 'Mech standing in Depth 1 water adjacent to a prone 'Mech in Depth 1 water can only make a kick attack, since the kick attack occurs completely underwater. The standing 'Mech cannot make a DFA against the prone 'Mech because a portion of the attack would take place outside the water.

Any physical attack that occurs underwater inflicts half its standard damage (round down).

Partial Cover: Depth 1 water provides partial cover to a standing 'Mech against physical attacks other than kicks. Such an attack made against a 'Mech in Depth 1 water by an attacker that is itself not fully submerged adds the +1 Target Number modifier for partial cover. If the attack resolves to the legs, it is ignored.

Note that if a 'Mech on Level 0 kicks a 'Mech in Depth 1 water, the target 'Mech would not receive partial cover, because, as per the Different Levels Table on p. 34, such an attack is resolved using the Punch Location Table. As such, the part of the 'Mech receiving the attack does not have cover.

Depth 2+ Water: A 'Mech standing in Depth 2 (or deeper) water can make any physical attack, except for a death from above. See *Underwater Combat*, page 64, for the full details on combat when submerged.

CHARGE ATTACKS

Base Target Number: Piloting Skill (comparative modifier; see p. 34).

In order for a 'Mech to charge, it must not have jumped that turn. A charging 'Mech cannot make any weapon attacks that turn.

Charge attacks are declared in the Movement Phase, not the Physical Attack Phase. It is not necessary to move in a straight line to charge, or to use Running movement. All that is required is that the attacker has enough MP to enter the hex the target occupies, and can legally do so. The attacker stops one hex away from the target and only then declares the charge: when resolving any action against the charging 'Mech between that moment and the time the charge is finally resolved, treat the 'Mech as in that hex and having only moved that far. It does not actually finish its movement and enter the target hex until the Physical Attack Phase.

Like all other physical attacks, charges are resolved during the Physical Attack Phase. This means the attacker can only charge 'Mechs that have finished their movement. It also means a charging 'Mech cannot itself be the target of a charge or death from above attack, because the charging 'Mech's movement will not be finished until the end of the Physical Attack Phase.

If the attacking 'Mech falls during the Weapon Attack Phase, its charge automatically misses; resolve the fall normally at the end of the Weapon Attack Phase. An exception occurs if the 'Mech falls in a paved hex. In this case, at the end of the Weapon Attack Phase, the 'Mech skids for a number of hexes equal to half the hexes it entered during the Movement Phase (round fractions up). When it skids into the hex containing the 'Mech it was attempting to charge, it makes an unintentional charge (see *Skidding*, p. 68).

If the target falls during the Weapon Attack Phase, the charge attack is not made and so the attacker does not move into the target's hex.

Multiple Attacks: A 'Mech may only be the target of one charge, death from above, or push attack in a given turn.

Shutdown Targets: When determining targets for a charge attack, 'Mechs that began the turn shutdown or with unconscious pilot are treated as though they already took their movement actions, regardless of what order their actions actually occur.

UMUs: A 'Mech can make a charge attack using Underwater Maneuvering Units.

CHARGE DAMAGE

If the attack succeeds, both 'Mechs take damage. Round all fractional damage up.

- **Damage to target:** Divide the charging 'Mech's weight by 10. Multiply this by the number of hexes moved (not MP spent) by the attacker in the Movement Phase. Do not count the hex the target is in. If the attacker moved both backward and forward that phase, base the number of hexes it moved from the hex in it last reversed its movement. If the attacker fell in the Movement Phase, no hexes it moved before the fall apply.
- **Damage to attacker:** 1 point of damage for every 10 tons the target weighs.

Divide all damage into 5-point Damage Value groupings (any leftover damage becomes its own grouping). The attacking player then rolls each grouping's hit location separately. For example, a 17-point charge forms three 5-point groupings and one 2-point grouping, and each grouping is a separate hit.

Buildings: A 'Mech that charges a building automatically fails its Piloting Skill Roll required to avoid damage when entering a building hex and so takes damage equal to the current CF of the building/10 (rounded up). This takes the place of the normal damage to the attacker caused by a charge.

Targets in Buildings: If a 'Mech charges a target in a building, the building absorbs damage as normal (see *Attacking 'Mechs Inside Buildings*, p. 71). The normal PSR to avoid taking damage when entering a building hex is required, with a +3 Target Number modifier in addition to the building modifier (see *Moving Into Buildings*, p. 67).

A 65-ton JagerMech *moves 5 hexes and declares a charging attack against a 45-ton 'Mech (it has the required 1 MP left over to enter the target's hex). If the charging attack is successful, the target takes 33 points of damage (6.5 for the* JagerMech*'s tonnage multiplied by 5 for the number of hexes it moved, rounded up). The* JagerMech *itself suffers 5 damage (45 / 10, rounded up).*

Unusual Targets: If a charge is made against any target (other than a building) with no tonnage—such as a hill, for example, due to a skid—calculate damage to the attacker using the attacker's tonnage rather than the target's.

LOCATION AFTER CHARGE

If the charge misses, the attacking 'Mech chooses to move into the hex to the right or left of the attacker's forward arc. If one of those hexes is prohibited terrain, the other hex must be chosen; if both are prohibited, the attacker does not move.

If the charge succeeds, the attacker then advances into the target's hex. If the target 'Mech is not destroyed, it is displaced into the adjacent hex in the direction that the attacker charged it. If this displaces the target 'Mech into a hex two or more levels lower than its current hex, it automatically falls the full height (see *Falling*, p. 56). Regardless, if a 'Mech is already in the hex it is displaced into, see *Displacement*, on p. 55.

If the target would be displaced into prohibited terrain, neither the attacker nor target moves. All other effects occur, however, including any Piloting Skill Rolls required to avoid falling.

FALLS

After any successful charging attack, the attacking and target 'Mechs must make Piloting Skill Rolls with a +2 Target Number modifier, or fall in the hexes they currently occupy.

CLUB ATTACKS

Base Target Number: Piloting Skill –1.

To attack another 'Mech with a club, the target must be in the attacker's forward firing arc. The attacking 'Mech:

- cannot have fired any arm-mounted weapons in the same turn
- must have both its shoulder actuators undamaged
- must have two undamaged hand actuators

A club occupies both of the 'Mech's hands.

A successful attack with a club does 1 point of damage for every 5 tons that the attacking 'Mech weighs. Roll normally on the Hit Location Table.

Claws: A 'Mech with any claws applies a +2 Target Number modifier to its club attacks.

Missing Actuators: A 'Mech must have two undamaged hand actuators to use a club. Apply a +2 Target Number modifier to the attack for each damaged upper or lower arm actuator.

FINDING A CLUB

A 'Mech may not fire weapons or make physical attacks during the turn that it picks up a club.

Girder Clubs: Girders from rubbled medium, heavy, or hardened buildings may also be used as clubs. To search the rubble in the hex a 'Mech occupies for a suitable girder, the player rolls 2D6 during the Weapon Attack Phase. A result of 7 or greater is needed to find a girder in a rubbled medium building, 6 or greater for a rubbled heavy building, and 5 or greater for a rubbled hardened building. If a club is found, it may be picked up that same phase.

Limb Clubs: Any 'Mech arm or leg that has been blown off through critical hits or has fallen off as a result of side torso destruction is left in that hex and may be used as a club.

Tree Clubs: If the 'Mech is in a woods or jungle hex (or a hex that has been reduced to a rough hex by a chainsaw or dual saw), it may uproot a tree and use it as a club. Uprooted trees only last for one successful club attack.

DEATH FROM ABOVE ATTACKS

Base Target Number: Piloting Skill (comparative modifier; see p. 34).

A jump-capable 'Mech can leap onto its target, a risky maneuver that brings the full weight of the machine crashing down on the victim's head.

Death from above (DFA) attacks are declared in the Movement Phase, not the Physical Attack Phase. The attacker stops one hex away from the target and only then declares the DFA: when resolving any action against the 'Mech making the DFA attack between that moment and the time the DFA is finally resolved, treat the 'Mech as in that hex and having only moved that far. It does not actually finish its movement and enter the target hex until the Physical Attack Phase.

The attacker spends the usual Jumping MP needed to reach the target's hex, but must have enough MP available to clear any height requirement (the level of the hex the target is in, plus two if the target 'Mech is standing, as a standing 'Mech is always two levels high). For example, to make a DFA attack from a Level 0 hex against a 'Mech standing one hex away on a Level 3 hill would only cost 1 MP, but the attacking 'Mech would need at least 5 Jumping MP available to make the attack. See *Jumping Movement*, p. 18.

When calculating the modified Target Number for a DFA, the attacker must always apply the +3 modifier for jumping movement: it is not already included. However, do not apply any terrain modifiers.

Like all other physical attacks, DFA attacks are resolved during the Physical Attack Phase. This means the attacker can only DFA a 'Mech that has finished its movement. It also means a 'Mech making a DFA attack cannot itself be the target of a DFA, since its movement will not be finished until the Physical Attack Phase.

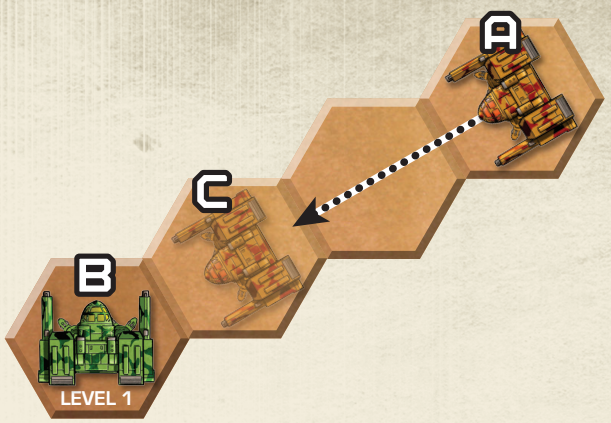
A 'Mech making a DFA cannot be the target of physical attacks, but may be the target of weapon attacks.

Multiple Attacks: A 'Mech may only be the target of one charge, death from above, or push attack in a given turn.

Shutdown Targets: When determining targets for a DFA attack, 'Mechs that began the turn shutdown or with unconscious pilot are treated as though they already took their movement actions, regardless of what order their actions actually occur.

Stacking: A 'Mech executing a DFA attack does not count as in any hex for stacking purposes until it lands (see *Stacking*, p. 18).

UMUs: A 'Mech cannot make a DFA attack using Underwater Maneuvering Units (but can charge using them).



• DEATH FROM ABOVE DIAGRAM •

In the Death from Above Diagram at left, the 'Mech in Hex A is making a DFA attack from against the 'Mech in Hex B. It's path during the jump is shown in the illustration. During the Weapon Attack Phase, the jumping 'Mech is considered to be in Hex C, as though it were standing on a Level 2 hill (the target hex's level +1). The 'Mech in Hex B may fire against the jumping 'Mech's front side with any weapons it can bring to bear at a range of 1. Other 'Mechs on the map can check for LOS and fire as though the jumping 'Mech were in Hex C with an LOS height of Level 4.

WEAPON ATTACK PHASE

The attacker cannot make weapon attacks in the same turn it executes a DFA.

During the Weapon Attack Phase, the attacker is considered adjacent to the target hex along the path that the attacker travels during the jump, and facing the target hex. If the path of the jump passes exactly between two hexes adjacent to the target, the attacker must choose which one they occupy. For purposes of determining LOS, the attacker is considered to be in the air above its hex, standing two levels higher than either the target hex or the level of the hex the attacker occupies, whichever is higher.

If the attacking 'Mech fails a Piloting Skill Roll in the Weapon Attack Phase (or would automatically fall), the DFA automatically misses. Resolve the attacker's falling damage and ending location per the rules under *Falls After DFA,* at right.

DFA DAMAGE TO TARGET

To determine damage to the target inflicted by a death from above attack, divide the weight of the attacking 'Mech by 10 and multiply the result by 3, rounding fractions up. For example, a *Jenner* weighing 35 tons inflicts 11 points of damage.

Damage from a DFA is not assigned to a single location. Instead, divide all damage from the attack into 5-point Damage Value groupings (leftover damage, if any, becomes its own grouping). The attacking player then rolls once on the Punch Location Table for each grouping (see p. 39). For example, a 12-point DFA forms two 5-point groupings and one 2-point grouping, and each grouping is assigned as a separate hit. Determine attack direction as though the attack had come from the attacking 'Mech's starting hex.

Prone 'Mechs: Resolve successful death from above attacks against a prone 'Mech on the rear column of the Hit Location Table (see p. 33).

DFA DAMAGE TO ATTACKER

To determine the damage to the attacker, divide the attacker's weight by 5. Then divide the result into 5-point Damage Value groupings, as explained above. Consult the Front column of the Kick Location Table to find the hit location for each grouping (see p. 38).

LOCATION AFTER DFA

A DFA is completed in the Physical Attack Phase. In that phase, the attacker lands in the target's hex. If the DFA succeeds, the target (if not destroyed) is displaced one hex in the direction opposite the attack.

If the DFA fails, the target chooses any legal adjacent hex and moves to it, even if immobile or prone. Unlike normal, this can be an occupied hex. If the target 'Mech is displaced into a hex two or more levels lower than its current hex, it automatically falls the full height (see *Falling*, p. 56). Regardless, if a 'Mech is already in the hex it is displaced into, see *Displacement*, on page 55.

Prohibited Terrain: If the target 'Mech would be displaced into prohibited terrain, another hex must be chosen as close as possible to the original hexside through which the target 'Mech would have moved. For example, if a target 'Mech would be displaced through hexside A, but A is prohibited, its controller then looks at hexsides B or F to see if those hexes are passable, then at hexsides C or E, then finally at hexside D. If two equally distant hexes are open, such as B or F, the controller chooses either one.

If all the surrounding hexes contain impassable terrain, the target 'Mech cannot be displaced. For example, the target 'Mech may be on Level 0 terrain surrounded by Level 3 or higher hills. In this case, if the attack succeeds, the target is destroyed. If the attack fails, the attacker is destroyed.

FALLS AFTER DFA

After a successful death from above attack, the attacker makes a Piloting Skill Roll (see p. 53), with a +4 Target Number modifier. If the displacement resulting from a successful DFA did not already cause the target 'Mech to fall, then it must make a PSR as well (with a +2 modifier instead). If either 'Mech fails its PSR, it takes damage as from a 0-level fall.

On an unsuccessful attack, the attacker automatically falls, taking damage as though it had fallen 2 levels onto its back (see *Falling*, p. 56).

'MECH KICK LOCATION TABLE

D6 Roll Result	Biped Left Side	Biped Front/Rear	Biped Right Side
1–3	Left Leg	Right Leg	Right Leg
4–6	Left Leg	Left Leg	Right Leg

D6 Roll Result	Four-legged Left Side	Four-legged Front/Rear	Four-legged Right Side
1-3	Left Front Leg	Right Front Leg/Right Rear Leg	Right Front Leg
4-6	Left Rear Leg	Left Front Leg/Left Rear Leg	Right Rear Leg

KICK ATTACKS

Base Target Number: Piloting Skill –2.

A 'Mech cannot kick with a leg if it fired weapons mounted in that leg that turn. To make a kicking attack, both hip actuators must be undamaged, and the target must be in the kicking 'Mech's forward arc (based on its actual facing; ignore torso twists).

Kicks have a Damage Value of 1 point for every 5 tons of the attacking 'Mech's weight, assigned as a single damage grouping. Determine the damage location by rolling 1D6 and consulting the appropriate column of the Kick Location Table, based on whether the 'Mech is a biped or four-legged design.

If a 'Mech is kicked, it must make a Piloting Skill Roll (see p. 53). If a 'Mech attempts a kick attack and misses, it must make a PSR.

Four-Legged 'Mechs: A quad 'Mech can choose to kick into its rear arc instead (provided the hip actuators of both legs used in the kick are undamaged). Resolve the kick exactly like a standard kick, but with an additional +1 Target Number modifier.

Critical Damage: Reduce kick damage by half for each upper and lower leg actuator damaged on the attacking 'Mech (rounding down); this is cumulative. For example, an attacker with two leg actuators damaged reduces its kick damage to 1/4 its base value.

PHYSICAL WEAPON ATTACKS TABLE

Weapon Type	To-Hit Modifier	Damage Value**	Hit Location Table	Affected by TSM?
Claws	+1	1 per 7 tons	Punch	Yes
Flail	0	9*	Standard	No
Hatchet	–1	1 per 5 tons	Option††	Yes
Lance	0	1 per 5 tons	Standard	Yes
Mace	+1	1 per 4 tons	Option††	Yes
Retractable Blade	–2*	1 per 10 tons	Option††	Yes
Sword	–2	(1 per 10 tons) +1	Option††	Yes
Talons	0	×1.5	As per attack	With kicks
Vibroblade				
Activated	–2	See p. 109	Option††	No
Deactivated	–2	(1 per 10 tons) +1†	Option††	Yes

*Value not affected by an absent or damaged hand actuator in the arm mounting it.

**Assign all damage as a single damage grouping. "1 per X tons" mean that the weapon does 1 point of damage for every X tons the 'Mech carrying it weighs (round fractional damage up); swords and deactivated vibroblades then add 1 point to this total.

†This cannot be higher than the damage an activated vibroblade of the same type deals.

††By default the weapon rolls on the regular Hit Location Table. However, when the player declares the physical weapon attack, they may also declare that it will use the Punch or Kick Hit Location Table instead. If so, apply a +4 Target Number modifier in addition to the weapon's standard modifier (the +4 modifier does not apply when forced to roll on a Punch/Kick Location Table due to attacks from different levels; see p. 34).

PHYSICAL WEAPON ATTACKS

Base Target Number: Piloting Skill, with modifier depending on weapon (see table at left).

'Mechs can be equipped with a variety of arm-mounted melee weapons, such as a hatchet or sword. A 'Mech cannot use a physical weapon in an arm if it fired weapons mounted in that arm that turn. The target of a physical weapon attack must be in the 'Mech's forward arc, or in the side arc corresponding to the arm in which the weapon is mounted.

The Physical Weapon Attacks Table at left shows each physical weapon, along with the relevant information needed to make an attack with it. A weapon listed as being affected by triple-strength myomer (TSM) deals twice its normal damage when a 'Mech wielding it has active TSM (see p. 117). All physical weapon attacks assign their damage as a single damage grouping.

See *Physical Weapons*, on page 108, for more details.

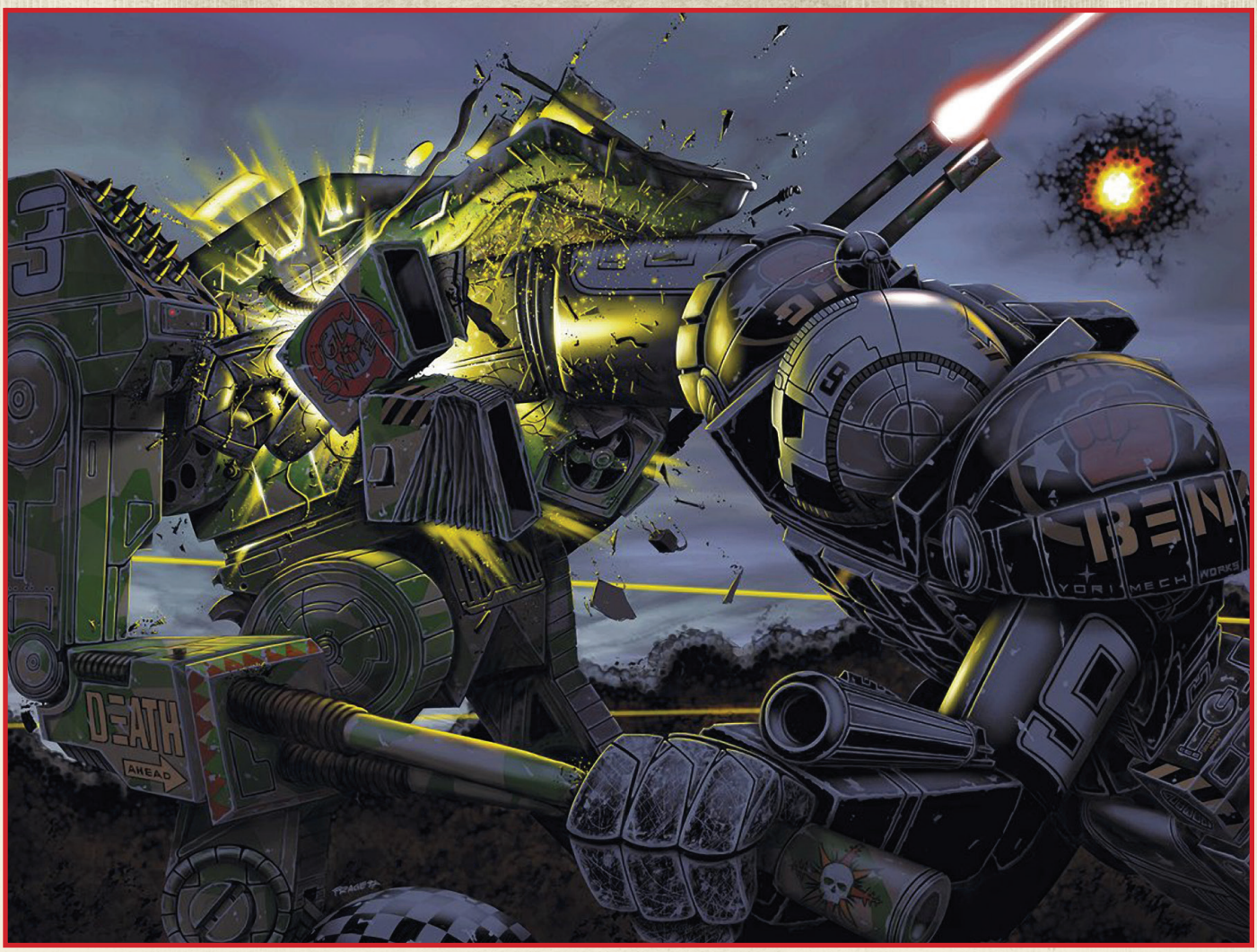
Punch Attacks: If a 'Mech mounts a physical attack weapon in an arm other than a retractable blade which is retracted, it cannot make a punch attack with that arm as long as that physical attack weapon is intact.

PUNCH ATTACKS

Base Target Number: Piloting Skill.

A 'Mech cannot punch with an arm if it fired weapons mounted in that arm that turn. A 'Mech may punch with one or both arms each turn; a separate attack roll is made for each arm. All punch attacks must be made against targets in the attacking 'Mech's forward or side firing arcs. If the target is in the right or left arc, only the right or left arm, respectively, may punch.

A punch attack has a Damage Value of 1 for every 10 tons (or fraction of) that the attacker weighs, assigned as a single block of damage from each arm. Reduce the damage by half for each upper or lower arm actuator damaged or not present, with these effects



'MECH PUNCH LOCATION TABLE

BIPED			
D6 Roll	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

FOUR-LEGGED			
D6 Roll	Left Side	Front/Rear	Right Side
1	Left Torso	Left Front Leg/ Left Rear Leg	Right Torso
2	Left Torso	Left Torso	Right Torso
3	Center Torso	Center Torso	Center Torso
4	Left Front Leg	Right Torso	Right Front Leg
5	Left Rear Leg	Right Front Leg/ Right Rear Leg	Right Rear Leg
6	Head	Head	Head

A JagerMech *with Piloting Skill Rating 5 punches a* Grasshopper, *standing in light woods, once, on its right side. Because the* JagerMech *has no lower arm actuator, the player adds a +2 Target Number modifier and reduces the normal damage by half (rounding down).*

Neither 'Mech moved, and so the modified Target Number is 9: 5 (Piloting Skill Rating) + 2 (no lower arm actuator) + 1 (no hand actuator) + 1 (light woods) = 9. The player rolls a 9 and hits the target.

The JagerMech *weighs 65 tons, so its punch has a normal Damage Value of 7 (65 divided by 10, rounded up), but the missing actuator reduces this to 3 (7 divided by 2, rounded down). The attacking player rolls a 3 on the Punch Location Table, which means the attack hits the target's center torso.*

being cumulative (so if both arm actuators are missing or damaged, reduce the attack damage to one-quarter). Round fractions down, to a minimum of 1. All Physical Weapon Attacks assign their damage as a single damage grouping.

Determine the damage location by rolling 1D6 for each arm and consulting the appropriate column of the Punch Location Table twice, based on whether the target is a biped or four-legged 'Mech.

Multiple Targets: A 'Mech can make two punches at two different targets (including targets in different arcs) and ignores the secondary target modifier.

Missing/Destroyed Actuators: A 'Mech cannot make a punch attack with an arm if the shoulder actuator in that arm has suffered critical damage.

'Mechs lacking a hand on the punching arm (whether by damage or by design) add a +1 Target Number modifier, as for a hand actuator critical hit. 'Mechs lacking a lower arm actuator on the punching arm (whether by damage or by design) must add a further +2 Target Number modifier, as for a lower arm actuator critical hit. In addition, as noted above, the punch inflicts only half the standard damage (round down).

PUSH ATTACKS

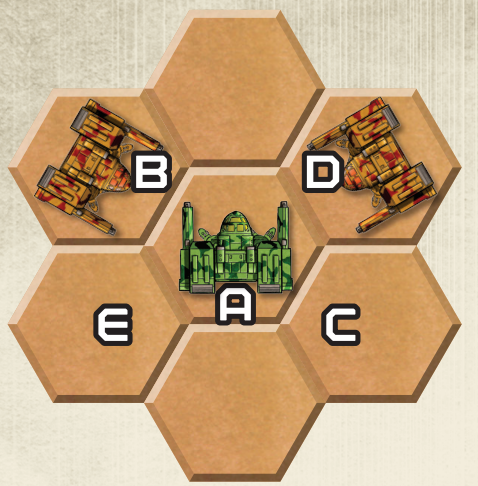
Base Target Number: Piloting Skill –1.

A 'Mech uses both arms to make a push attack against its target, which must be another standing 'Mech. Pushing attacks can only be made against a target in the hex directly in front of the attacker (based on the orientation of its feet, not its upper body; a torso twist does not change what can be the legal target).

A 'Mech may make no arm-mounted weapon attacks in the turn that it makes a push attack. The target 'Mech cannot be performing a charge or death from above attack this turn. It must also be at the same level as the attacker.

A successful push attack does not damage the target. Instead, it displaces the target into the adjacent hex in the direction that the attacker pushes it. The attacking 'Mech moves into the hex formerly occupied by its target (unlike a charge, this does not require additional MP expenditure). The defender must then make a Piloting Skill Roll (see p. 53) or fall in the hex it was forced into.

If the target 'Mech is displaced into a hex two or more levels lower than its current hex, it automatically falls the full height (see *Falling*, p. 56). Regardless, if a 'Mech is already in the hex it is displaced into, see *Displacement*, on page 55.



• PUSHING DIAGRAM •

If in the Pushing diagram above, the 'Mech in Hex A is successfully pushed by the 'Mech in Hex B, it moves into Hex C. If the 'Mech in Hex A is successfully pushed by a 'Mech in Hex D, it is forced into Hex E.

In both cases, the pilot of the target 'Mech must make a Piloting Skill Roll to remain standing, and its attacker advances into Hex A. The 'Mech in Hex A cannot push either of its opponents because neither of them lies directly in front of it.

Multiple Attacks: A 'Mech may only be the target of one charge, death from above, or push attack in a given turn.

If two 'Mechs attempt to push each other, resolve both attempts. If both attacks fail, nothing happens. If both attacks succeed, neither 'Mech moves, and both must make Piloting Skill Rolls or fall. If only one push attack succeeds, resolve it as usual.

Prohibited Terrain: If the target would be displaced into prohibited terrain, neither the attacker nor target moves. All other effects occur, including any PSRs required to avoid falling.

Shoulder Actuators: Apply a +2 Target Number modifier to push attacks for each damaged shoulder actuator the attacker has.

DAMAGE RESOLUTION

Only after all physical attacks have been made is the damage caused as a result of those attacks applied. As such, damage dealt in a Physical Attack Phase never affects attacks made that same phase (the attacks are all made before the gameplay effects of damage caused as a result is applied).

All Piloting Skill Rolls required due to physical attacks are made at the end of the Physical Attack Phase (i.e. after all attacks that phase), applying any modifiers resulting from damage inflicted that phase. See page 53 for details. Once this is done, players then proceed to the Heat Phase.

See the *Damage* chapter, pages 41-49, for how to resolve damage.

DAMAGE

This chapter explains how you apply damage to BattleMechs, and deal with the variety of special effects that can occur as a result of it.

Every weapon does a specific amount of damage, defined as Damage Value, which appears on record sheets as well as under the Damage Value column on the appropriate Weapons and Equipment tables, beginning on page 120. Follow the step-by-step procedure outlined in *Damage Resolution* below to determine the effects of damage.

Attacks: It is very important to remember that all attacks in a phase must be declared and made *before* any of the hit locations and damage from those attacks is resolved. You do not attack with and resolve damage for one weapon at a time; damage resolution comes after *all* attacks in a given phase.

Buildings: Hits against buildings are recorded differently from hits on 'Mechs. See *Urban Combat*, page 66, for details.

DAMAGE RESOLUTION

In short, damage from any source is first applied to the armor of the location damaged. Once all armor in a location is depleted, the internal structure of that location takes damage instead. Each time a location has its internal structure damaged, a critical hit in that location is possible (see *Critical Hits*, p. 45). Once the internal structure of a location reaches zero, that location is destroyed. After a location is destroyed, damage to that location transfers to the neighboring location.

Perhaps the most important thing to understand when applying damage is that every single hit is completely resolved—both the damage dealt and any critical hits inflicted—before moving on to the next hit. This includes single attacks that result in multiple hits, such as cluster weapons. For example, if an attack from a SRM-2 strikes a 'Mech, and both missiles from that attack hit, then the hit location and damage from the first missile is resolved, you check to see if any critical hits occur, any critical hits that do result are resolved (and if multiple critical hits occur, you resolve each critical hit completely before moving on to the next), and only then does play move on to resolve the second missile from that attack.

Also note that the order in which damage is applied is important. If resolving multiple hits on a single 'Mech, be sure that everyone is aware of what order the hits are being resolved.

Resolution Order: The attacker chooses the order in which they determine hit locations (and resolve damage) for each of their 'Mech's successful attacks. From turn to turn, the attacker can change this order.

STEP-BY-STEP DAMAGE

The following steps offer a more thorough walkthrough of damage resolution.

To apply damage, begin with the amount of damage inflicted and its hit location, and start at Step 1. Answer each question yes or no, and follow the instructions.

If a head, leg, or torso location is destroyed, see separate sections for each of these events below for additional information.

Damage Transfer: The steps below assume you understand how to transfer damage. If not, in brief, once a location has been destroyed, all further damage transfers directly to the next location inward, if any (the Damage Transfer Diagram shows you which locations are inward; see p. 43). The damage is applied to the armor of the location transferred to, unless it came from an ammunition explosion (in which case it is applied to the internal structure instead).

Note that there is no damage transfer from the head or center torso locations. If a step below would call for transferring damage from one of these two locations inward, the attack is finished instead, and the remaining damage is lost.

See *Transferring Damage*, page 44, for more detail.

1. DOES THE LOCATION/FACING HAVE ARMOR?

Yes: Check off one armor circle on the Armor Diagram in the location (or facing, if a torso location) for every point of damage the hit deals, until all damage is applied or all armor in the location/facing is destroyed. Go to Step 2.

No: Go to Step 2, answering "Yes".

2. IS THERE DAMAGE REMAINING?

Yes: Check off one internal structure circle on the Internal Structure Diagram in that location for every point of damage remaining, until all damage is applied or all internal structure in the location is destroyed. Go to Step 3.

No: Attack is finished.

3. DOES ANY INTERNAL STRUCTURE REMAIN IN THE LOCATION?

Yes: Go to Step 4.

No: Go to Step 5.

4. AT THE START OF THIS PHASE, DID THE LOCATION HAVE ANY COMPONENTS THAT COULD TAKE A CRITICAL HIT?

Yes: Immediately roll once on the Determining Critical Hits Table, page 46. Apply any resulting critical hits to that location. Critical hits that cannot be applied are discarded. Go to Step 6.

No: Immediately roll once on the Determining Critical Hits Table, page 46. Apply any resulting critical hits to the next location inward (if any; see the Damage Transfer Diagram on p. 43). Go to Step 6.

5. ARE THERE EXPLOSIVE COMPONENTS IN THE LOCATION?

Yes: The location is destroyed. Immediately roll once on the Determining Critical Hits Table, page 46. Apply any resulting critical hits to the destroyed location. Only critical hits that strike explosive components are resolved; all others are discarded. Go to Step 6.

No: The location is destroyed. Go to Step 6.

6. IS THERE DAMAGE REMAINING?

Yes: Go to Step 7.

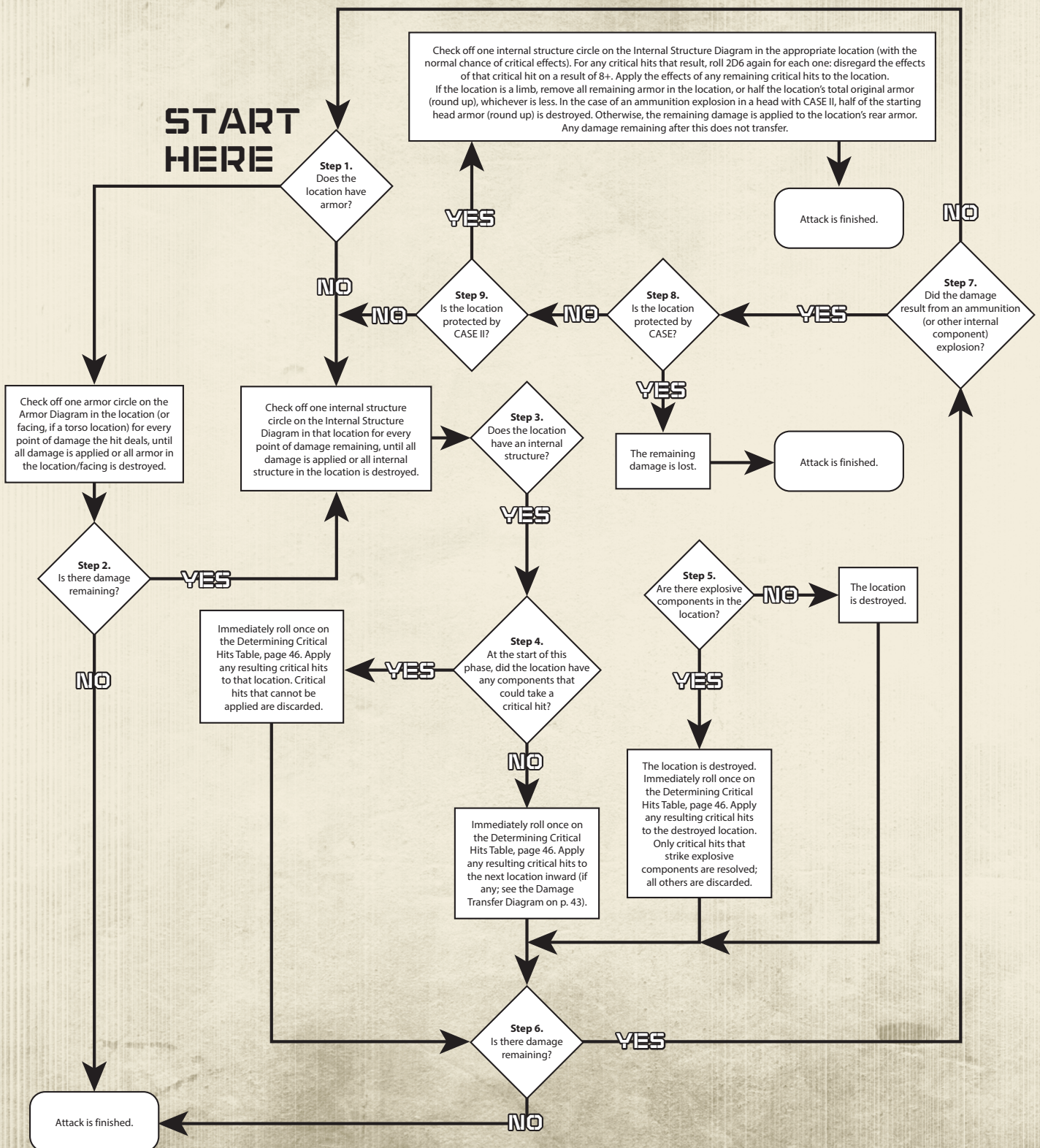
No: Attack is finished.

7. DID THE DAMAGE RESULT FROM AN AMMUNITION (OR OTHER INTERNAL COMPONENT) EXPLOSION?

Yes: Go to Step 8.

No: The remaining damage transfers to the next location inward (if any; see the Damage Transfer Diagram on p. 43). If transferring to a torso location, the damage is applied to the front armor unless the attack came from the rear. Go to Step 1.

• DAMAGE RESOLUTION FLOW CHART •



8. IS THE LOCATION PROTECTED BY CASE?

Yes: The remaining damage is lost. The attack is finished.

No: Go to Step 9.

9. IS THE LOCATION PROTECTED BY CASE II?

Yes: Check off one internal structure circle on the Internal Structure Diagram in the appropriate location (with the normal chance of critical effects). For any critical hits that result, roll 2D6 again for each one: disregard the effects of that critical hit on a result of 8+. Apply the effects of any remaining critical hits to the location.

If the location is a limb, remove all remaining armor in the location, or half the location's total original armor (round up), whichever is less. In the case of an ammunition explosion in a head with CASE II, half of the starting head armor (round up) is destroyed. Otherwise, the remaining damage is applied to the location's rear armor.

Any damage remaining after this does not transfer. The attack is finished.

No: The remaining damage transfers to the next location inward (if any; see the Damage Transfer Diagram on p. 43), directly to the internal structure. Go to Step 2, answering "Yes".

DAMAGE TIMING

There is a very important distinction between resolving damage (the process described above) and applying its gameplay effects.

Damage dealt by attacks made in the Weapon Attack or Physical Attack Phases (including critical hit effects) is resolved as it happens, as explained above. *However, the gameplay effects of such damage are never applied until after all attacks in a phase have been both made and resolved*. This is because all declared attacks must be resolved, and is important because it means that damage dealt by attacks never affects any other attack made in the same phase.

Unlike attacks, the gameplay effects of damage from falls and displacement are applied immediately.

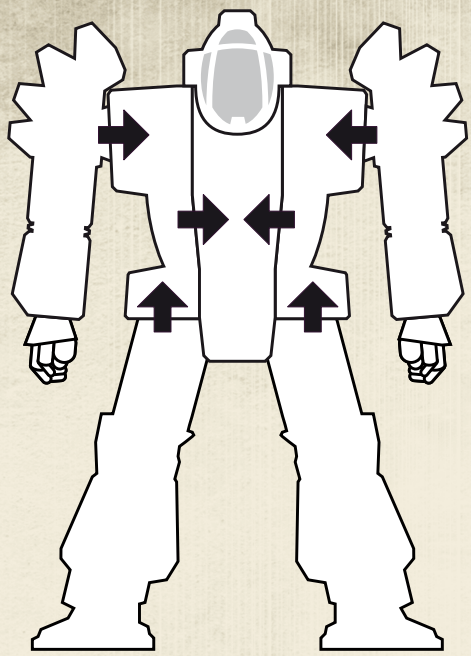
Piloting Skill Rolls: The gameplay effects of damage are always applied before any PSRs resulting from that damage. For example, if a foot actuator is destroyed in the Weapon Attack Phase, this forces a PSR. The standard +1 modifier for losing a foot actuator is applied to that PSR, as well as to any other PSRs called for that phase (and the rest of the game, of course).

HULL INTEGRITY AND BREACHES

Whenever an underwater location takes damage (such as the legs of a 'Mech which is in Depth 1 water), the controlling player rolls 2D6. On a result of 10 or greater, the 'Mech has lost integrity in that location, which fills with water. See page 65 for the effects of this.

LOCATION DESTRUCTION

If a location is destroyed, all components in that location are also destroyed, including all armor. If the same location takes another hit, or excess damage remains from the attack that destroyed the location, that damage transfers to (affects) the outer armor of the next location inward (see *Transferring Damage*, p. 44).



• DAMAGE TRANSFER DIAGRAM •

In addition, the destruction of the head, leg, or torso locations has further effects, detailed below.

Critical Hits: If a location is destroyed by the elimination of internal structure, and it contains one or more ammo slots (or other explosive items, such as a Gauss rifle), the controlling player must still check for critical hits due to damage to that location (see *Critical Hits*, p. 45).

Limb Clubs: An arm or leg which is blown off through critical hits or falls off as a result of side torso destruction remains in the hex in which it was lost and may be used as a club (see *Club Attacks*, p. 36).

In the midst of resolving damage in the Weapon Attack Phase, a 'Mech's right torso is destroyed.

As far as resolving damage goes, the torso is gone immediately. This means that the right arm also falls off immediately. If, when resolving any remaining hits that phase, any are scored against the 'Mech's right arm, they will transfer to the right torso (since, as far as damage resolution is concerned, the arm fell off the instant the torso was destroyed). And, since the right torso was also destroyed, the damage will transfer further inward, to the center torso (as per the Damage Transfer Diagram).

In terms of gameplay effects, all this destruction has absolutely no effect on any weapons located in the arm or torso that the target 'Mech had declared that it was firing that phase. This is because all declared attacks must be resolved. Only at the end of the phase are the arm and torso truly gone. Even if the 'Mech was blown to pieces, it still makes its declared attacks.

TRANSFERRING DAMAGE

Once a location has been destroyed, all further damage transfers directly to the next location inward. The damage is applied to the armor of the location transferred to, unless it came from an ammunition explosion (see below).

Damage to a missing arm or leg transfers to the torso on the same side (so left leg or arm damage transfers to the left torso, while right arm or leg damage transfers to the right torso). Additional damage to a destroyed side torso location transfers to the center torso. Damage from a destroyed head or center torso does not transfer. The Damage Transfer Diagram illustrates this principle, and the diagrams below explore it in more detail.

Damage dealt to the rear hit zone (see p. 32) that transfers inward transfers to the appropriate rear torso facing. For example, damage from the rear that hits a missing left leg is transferred to the left rear torso.

Ammunition Explosion: Damage from ammunition explosions transfers to the internal structure of the next location inward, bypassing the armor entirely.

Torso-Mounted Cockpit: If the head of a 'Mech with a torso-mounted cockpit is destroyed, excess damage to the head still does not transfer to other locations, and further strikes to the head have their location re-rolled.

HEAD DESTRUCTION

If a head has all its internal structure destroyed, the MechWarrior inside is killed and the 'Mech is destroyed. Remove the 'Mech from the map in the end of the phase in which it was destroyed.

Torso-Mounted Cockpit: The above assumes the 'Mech has a head-mounted cockpit. If using a torso-mounted cockpit, destruction of the head does not destroy the 'Mech or kill its pilot, though additional effects may occur (see *Torso-Mounted Cockpit*, p. 115).

LEG DESTRUCTION

When a standing 'Mech loses a leg, the 'Mech automatically falls per the standard rules for falling, and ends its movement for that turn. Apply a +5 modifier to all Piloting Skill Rolls: this replaces all other PSR modifiers generated by damage to that leg. If the 'Mech stays prone, it can still change its facing one hexside per turn; it is considered to have walked if it changes its facing.

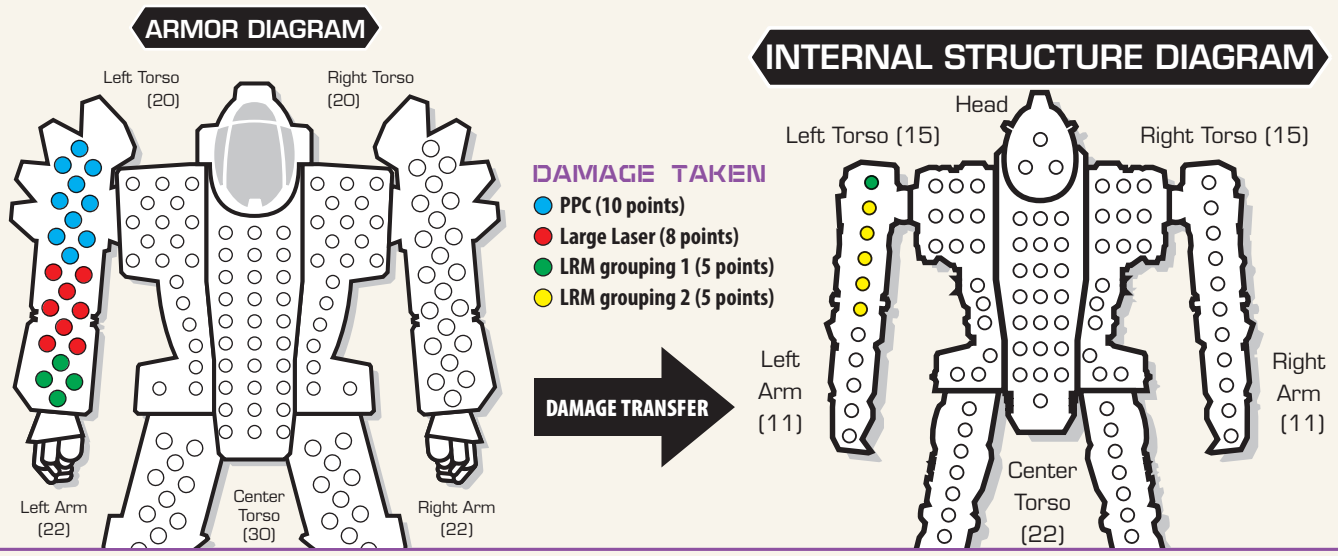
A prone 'Mech with one leg may attempt to stand on its remaining leg in subsequent turns. However, it may only make one attempt per turn, and this attempt to stand is always considered running. In an exception to the normal rules, only one PSR is required for this attempt, even if damage or other factors means that the attempt would normally require two or more PSRs (though all modifiers from any such factors still apply). If the 'Mech manages to stand, it has a Walking MP of 1 (this overrides all MP increases) and cannot run. The 'Mech may still jump, but the pilot must make a Piloting Skill Roll each time the 'Mech lands.

A Grasshopper*'s left arm is hit by a PPC (Damage Value 10), a large laser (Damage Value 8), and two 5-point groupings of long-range missiles (Damage Value 1 per missile hit, so 5 damage per grouping). Before this turn, the 'Mech had its full Armor Value of 22 in that arm.*

The PPC hit reduces the Armor Value by 10, so the Grasshopper*'s player fills in ten armor circles. The laser hit does 8 points of damage, and so the player fills in eight more circles, leaving four. The first missile grouping reduces the Armor Value by another 5 points, but since the* Grasshopper*'s remaining Armor Value is 4, that leaves 1 point of damage that the location's armor cannot absorb.*

The remaining 1 point of damage from the first missile grouping transfers to the arm's internal structure, and so the player fills in one circle on the Internal Structure Diagram, leaving ten circles out of the original eleven, and the attacker immediately makes a roll on the Determining Critical Hit Table (see p. 46), applying effects, if any. The last missile grouping reduces the arm's internal structure by another 5 points. The player fills in five more circles on the Internal Structure Diagram, once again immediately makes a roll on the Determining Critical Hits Table, and applies the effects, if any.

If the Grasshopper*'s left arm takes another 5 or more points of damage, the arm will be destroyed.*



A 'Mech that loses both of its legs automatically falls (if not already prone); the MechWarrior automatically takes 1 point of damage from this fall.

While a 'Mech without legs is not considered immobile (see p. 16), the 'Mech has 0 MP available. It cannot change hexsides or attempt to stand, though it can still attempt to prop itself up to fire if it has both arms.

Four-Legged 'Mechs: The effects of loss of legs are applied to a quad 'Mech as follows:

- **One destroyed leg:** Immediately falls and loses all movement and combat bonuses gained from being four-legged: it can no longer make lateral shifts, it loses its –2 modifier to Piloting Skill Rolls, it must make a successful PSR to stand after falling, and it suffers a +2 modifier to Target Numbers for firing when prone. In addition, a –1 MP penalty replaces any penalties associated with damaged leg actuators in the destroyed leg. If the 'Mech jumps, it still must make the usual PSR required for jumping and missing a leg, with a +5 modifier.
- **Two destroyed legs:** Functions with the same restrictions described above for a biped 'Mech that has lost one leg: it immediately falls, has only 1 MP, and so on.
- **Three destroyed legs:** Functions with the same restrictions described above for a biped 'Mech that has lost both legs: it immediately falls, has only 0 MP, and so on.
- **Four destroyed legs:** Automatically falls (if not already prone) and is immobile (see p. 16).

Minimum Movement: Although a one-legged 'Mech can no longer run, the one exception is that it can still use the *Minimum Movement* rule (which always counts as running; see p. 16).

TORSO DESTRUCTION

If a 'Mech's right or left torso has all of its internal structure destroyed, the corresponding arm (for four-legged 'Mechs, the corresponding front leg) is blown off immediately (see either *Arm Blown Off*, p. 47 or *Leg Blown Off*, p. 48 for the effects of this). Additional damage in the same phase that would normally have struck the limb is automatically transferred to the appropriate torso (and since that torso is destroyed, the damage ultimately transfers to the center torso).

If the center torso is destroyed, the entire 'Mech is destroyed. Remove the 'Mech from the map in the end of the phase in which it was destroyed. If the center torso was destroyed by an ammunition explosion or Area-Effect type weapon, the MechWarrior is killed as well (unless the warrior ejects first; see *Ejection*, p. 81).

CRITICAL HITS

If a location takes one or more points of internal structure damage, but is not outright destroyed, the attacker checks for critical damage by rolling 2D6 and consulting the Determining Critical Hits Table (see p. 46). On an 8 or higher, the target 'Mech takes critical damage: the higher the roll, the greater the damage. Consult the 'Mech's Critical Hit Table to determine the effects (see *Applying Critical Hits*, p. 46).

If a location is destroyed, rather than just damaged, no check for critical hits in that location is made unless it contains one or more explosive slots. In that case, any resulting critical hits that strike explosive slots in that location are resolved as normal (see *Ammunition*, p. 47); hits that do not are always discarded.

The effects of critical hits, such as Piloting Skill Roll modifiers, are cumulative unless specifically stated otherwise, and last for the remainder of the game. Certain critical hits may force a PSR: if the text also applies a modifier to this roll, that modifier is in addition to any other modifiers unless stated otherwise.

Some effects can create a chance for a critical hit even if the location's internal structure was not damaged. These effects are detailed below.

Armor-Piercing Ammo: So long as it deals damage, a hit with AP ammo (see p. 106) has a chance at causing a critical hit, even if the target's internal structure took no damage.

Armored Components: These prevent critical hits. See page 118.

Hardened Armor: When rolling on the Determining Critical Hits Table for a 'Mech with hardened armor (see p. 114), apply a –2 modifier to the roll.

Multiple Locations: If a single hit damages the internal structure of multiple locations, critical damage is resolved for each of those locations.

Primitive 'Mechs: When rolling on the Determining Critical Hits Table for a 'Mech of the Primitive tech base, apply a +2 modifier to the roll. A result over 12 is treated as 12.

Reinforced Structure: When rolling on the Determining Critical Hits Table for a 'Mech with reinforced structure (see p. 117), apply a –1 modifier to the roll.

Through-Armor Critical Hit: A roll of a 2 on the Hit Location Table provides a chance for a critical hit, even if the attack did not damage internal structure (though the attack must still have dealt at least 1 point of damage). This is known as a through-armor critical (TAC) hit; resolve it by rolling on the Determining Critical Hits Table just as for other critical hit rolls.

The chance for a TAC hit is in addition to the normal check for critical hits resulting from damage to the internal structure, and applies even if a 'Mech has no armor left in that location. For example, a hit location result of 2 against a 'Mech with no torso armor left requires two rolls on the Determining Critical Hits Table, one for the TAC hit and one for damaging the internal structure.

FLOATING CRITICALS (OPTIONAL)

Under standard rules, when the possibility of a through-armor critical hit arises from a roll of a 2 on the Hit Location Table, any critical hits are applied to the location initially rolled (center, right, or left torso, depending on facing). The following rule allows a possible critical hit to affect any location.

Using this option, when a player rolls a 2 on the Hit Location Table, roll the dice a second time to determine where the shot actually hits. Any critical hits inflicted are inflicted on that location. If another 2 is rolled, that result indicates that the shot struck the appropriate torso location, but does not grant another possible through-armor critical hit.

Partial Cover: If the target of the attack has partial cover and a leg location is rolled for a floating critical hit, re-roll until a non-leg location is rolled.

DETERMINING CRITICAL HITS TABLE

Dice Roll	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 attack strikes the torso.

APPLYING CRITICAL HITS

When critical damage occurs, the attacker rolls for each critical hit to determine which slot in the damaged location the hit affects. The target player marks off this damage on their 'Mech's Critical Hit Table. It is possible that some locations can be blown off completely, even if they still have internal structure remaining. The exact procedure depends on the location damaged.

Head or Leg Hits: If the critical hit strikes the 'Mech's head or legs, roll 1D6, find the result on the Critical Hit Table, and mark off the damage. If the slot rolled is an inapplicable slot (see p. 46), roll the die again. If all slots in the location are inapplicable, then consult *Transferring Criticals* (see p. 46).

Torso or Arm Hits: The Critical Hit Table for these locations is divided into two blocks of six slots, with the first block labelled "1–3" and the second block "4–6". When assigning a critical hit to these locations, the player first rolls 1D6. This identifies which block of slots in that location takes the hit: on a result of 1–3, the hit is assigned to the first block of six slots, while on a result of 4–6, the hit is assigned to the second block. The player then rolls another 1D6. The result of this roll identifies the specific slot in that block that takes the hit. If the slot rolled is an inapplicable slot (see p. 46), roll both dice again (not just the last die).

If one of the blocks of six is filled entirely with inapplicable slots, simply ignore that block and only roll 1D6 when assigning a critical hit to that location, just as if you were assigning a leg or head critical. If all slots in the location are inapplicable, then consult *Transferring Criticals* (see p. 46).

In the Weapon Attack Phase, the internal structure of a Quickdraw*'s right torso is damaged. The attacker must immediately roll to determine critical hits before resolving any further weapons fire. The attacker rolls a 12, resulting in three critical hits. The right torso of the* Quickdraw *mounts two medium lasers, one of which was destroyed in a previous turn, and so one critical hit destroys the final medium laser. As all possible slots in the location were not hit before this phase, the two excess critical hits do not transfer and are lost.*

In the Physical Attack Phase of the same turn, the internal structure of the Quickdraw*'s right torso is damaged again. A 10 is rolled for determining critical hits, resulting in two critical hits. As all possible slots in the damaged location took critical hits before this phase, both critical hits transfer to the* Quickdraw*'s center torso.*

Multi-slot Components: Some items, such as double heat sinks, take up multiple slots on the Critical Hit Table. A single critical hit disables any item or structural component except the engine, gyro, or sensors, regardless of its number of slots. Critical hits on additional slots occupied by the item have no further effect, but soak up the hit: the critical is assigned to the slot, but no further effects occur.

Multiple Critical Hits: If multiple critical hits result from a roll on the Determining Critical Hits Table, resolve each critical hit completely before moving on to the next one.

Inapplicable Slots: If a critical hit roll would apply damage to a slot for which any of the following applies, it is an inapplicable slot and the player rolls again:

- the slot has already taken a critical hit
- the slot is empty
- the slot cannot take critical damage (such as endo-steel, CASE, TSM, or ferro-fibrous armor slots)

(On pregenerated record sheets, empty slots are labelled "Roll Again", and the words in slots that cannot take critical damage always appear fainter than the words in a slot filled with equipment that can, and are italicized.)

For a torso or arm hit, the player rolls both dice again, not just the last die. If all slots in the location are inapplicable, then consult *Transferring Criticals*, below.

A JagerMech *takes a critical hit to its left arm. The attacking player rolls the first die, and the result is 5. This means the critical hit affects a slot in the second half of the Critical Hit Table for the left arm (the block labelled "4–6"). The attacking player then rolls the second die and gets a 3. As that's an inapplicable slot (Ferro-Fibrous), the attacking player rolls both dice again. This time the result is a 2 (meaning the upper section) and a 6; the defending player notes the critical hit on that slot by crossing it out, knowing it just destroyed the Ultra AC/5.*

CRITICAL HIT TABLE

Left Arm

1-3	1.	Shoulder
	2.	Upper Arm Actuator
	3.	Ultra AC/5
	4.	Ultra AC/5
	5.	Ultra AC/5
	6.	~~Ultra AC/5~~
4-6	1.	Ultra AC/5
	2.	Autocannon/2
	3.	Ferro-Fibrous
	4.	Ferro-Fibrous
	5.	Ferro-Fibrous
	6.	Roll Again

TRANSFERRING CRITICALS

If a critical hit cannot be applied to a location, it might transfer to another location. This depends on the situation at the time of the hit.

If all possible slots in the damaged location had already taken critical hits in phases previous to this one, or are otherwise inapplicable slots (see above), the critical hit transfers to the next location per the Damage Transfer Diagram. Critical hits to the center torso and head never transfer.

If all possible slots in the damaged location were not hit in previous phases, any excess critical hits do not transfer and are lost.

Destroyed Locations: Critical hits that occur when a location is destroyed (rather than just damaged) never transfer.

CRITICAL HIT EFFECTS

Critical hit locations are arranged alphabetically by item; the location of the item on the 'Mech (head, leg, torso, arm) is noted in parentheses in this section.

AMMUNITION

If a critical hit destroys a slot carrying explosive ammunition, the ammo explodes (all ammunition is explosive unless specifically noted otherwise in *Weapons and Equipment* (see pp. 96-119). The MechWarrior takes 2 points of damage as a result of the feedback received through their neurohelmet. In addition, the 'Mech takes damage to its internal structure.

A critical hit to an ammo slot only explodes the ammo in that slot. The explosion deals damage 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, one ton of machine gun ammo explodes with a force of 400 points of damage (2 x 200), while one ton of SRM-2 ammo explodes with a force of 200 points of damage (2 x 2 x 50). Calculate the total Damage Value of all ammo currently carried in the slot and apply that total to the Internal Structure Diagram (ammunition explosion damage starts the damage resolution process at Step 2, as described on p. 41).

Because an ammunition explosion damages the internal structure of the location where it explodes, a roll to determine critical hits is necessary; i.e. an ammo explosion could cause another ammo explosion, inflicting 4 points of damage on the MechWarrior.

CASE: CASE does not prevent any damage to the location that the ammunition explosion occurs in. However, any excess damage from the explosion after that location has been destroyed does not transfer inward: the excess damage is simply ignored.

CASE II: If the location is protected by CASE II, check off one internal structure circle on the Internal Structure Diagram in that location (with the normal chance of critical effects). For any critical hits that result from this damage, roll 2D6 again for each one: disregard the effects of that critical hit on a result of 8+. Apply the effects of any remaining critical hits to the location. Excess critical hits that cannot be applied are discarded.

If the location is a limb, remove all remaining armor in the location, or half the location's total original armor (round up), whichever is less. In the case of an ammunition explosion in the head when a small cockpit is used and CASE II is present, half of the starting head armor (round up) is destroyed. Otherwise, any remaining damage is applied to the location's rear armor.

Any remaining damage from the explosion does not transfer.

Empty Bins: If an empty ammunition slot takes a critical hit, the hit is still applied there, but no further damage or effects occur.

ARM BLOWN OFF (ARM)

This critical hit occurs when the player rolls a 12 on the Determining Critical Hits Table for an arm hit, and is automatic (neither player may choose to roll the three critical hits instead). The hit blows the arm off.

When an arm is blown off in this way, explosive components in that arm do not explode. Though the limb is destroyed, none of the armor or structure on the limb is lost (this is relevant when calculating whether the 'Mech will be required to make a Piloting Skill Roll for having taken 20+ points of damage that phase).

An arm blown off by a critical hit remains in the hex in which it was lost and may be used as a club (see *Club Attacks*, p. 36).

COCKPIT (HEAD)

A critical hit to the cockpit destroys that slot, kills the MechWarrior, and destroys the 'Mech. Remove the 'Mech from the map in the end of the phase in which it was destroyed.

Torso-Mounted Cockpit: If a 'Mech has a torso-mounted cockpit, the cockpit slot is located in the center torso instead of the head. The effects of its destruction remain the same.

ENGINE (TORSO)

'Mech engines have 3 points of shielding. Each critical hit to an engine slot destroys 1 point of shielding. As shielding is destroyed, the amount of heat escaping from the 'Mech's fusion drive increases.

The first hit increases the 'Mech's heat build-up by 5 points per turn. The second adds another 5 points of heat build-up per turn for a total of 10 points per turn. A 'Mech is destroyed if it suffers three engine hits (remember to count engine slots present in the 'Mech's side torsos, if any). Remove the 'Mech from the map at the end of the phase in which it was destroyed.

ENGINE EXPLOSIONS (OPTIONAL)

Though the scientific reality of fusion engines prevents them from exploding, the dramatic effect of such an expensive piece of machinery blowing up in a huge ball of fire is extremely appealing.

If using this optional rule, when the fusion engine of a 'Mech takes four or more critical hits in the same phase, roll 2D6. On a result of 10 or higher, the engine explodes.

The explosion destroys the 'Mech and also starts a fire in the hex, regardless of the terrain (see *Effects of Fire*, p. 63). Any targets in adjacent hexes take damage equal to the engine's rating (which is the weight of the 'Mech multiplied by its unmodified Walking MP) divided by 10 (rounded to the nearest whole number; round .5 down). Targets two hexes away take damage equal to the engine's rating divided by 20. Targets three hexes away take damage equal to the engine's rating divided by 40.

Divide any damage into 5-point Damage Value groupings and randomly determine each location; determine the direction of the attack from the direction of the hex where the engine exploded.

Area-Effect: An engine explosion is treated as an Area-Effect (AE) type weapon (see p. 96).

Water: If the target is not in a water hex and an adjacent hex is a water hex, no damage is applied to any completely submerged 'Mech in that adjacent hex.

FOOT ACTUATOR (LEG)

This critical hit destroys the muscle (actuator) in the foot. For each foot actuator damaged, reduce the 'Mech's Walking MP by 1. Recalculate its Running MP accordingly by multiplying the new Walking MP by 1.5, rounding up.

PSR Modifiers: +1 each. The 'Mech's controller must make a PSR at the end of the phase in which the critical hit occurred.

Additionally, a PSR is required whenever the 'Mech jumps; the roll is made at the end of the 'Mech's movement.

Target Number Modifiers: +1 to all kick attacks.

GYRO (TORSO)

The gyroscope keeps the 'Mech upright and able to move. The first hit to a gyro damages it, and the second destroys it.

When a 'Mech's gyro is destroyed, the 'Mech automatically falls and cannot stand up again; the usual Piloting Skill Roll made to avoid damaging the MechWarrior in the fall (see p. 57) applies a +6 Target Number modifier for the destroyed gyro.

'Mechs with a destroyed gyro may make weapon attacks per *Firing While Prone* (see p. 30), and may change facing by one hexside per turn provided they have at least 1 MP available. A 'Mech with a destroyed gyro is not considered immobile.

PSR Modifiers: +3 if damaged, +3 if destroyed (cumulative). The controlling player must make a PSR at the end of the phase in which the first critical hit occurred, unless the 'Mech received a second gyro hit in the same phase (in which case it automatically fell and so the PSR is unnecessary).

Additionally, a PSR is required every time the 'Mech runs or jumps; the roll is made at the end of the 'Mech's movement.

Heavy-Duty Gyro: It takes three critical hits to destroy a heavy-duty gyro. On the first critical hit, a +1 modifier applies to all Piloting Skill Rolls, but no PSR is forced by this if the 'Mech runs or jumps. The second critical hit replaces the +1 PSR modifier with all the effects of a first critical hit to a standard gyro. The third critical hit destroys it, causing all the normal effects of gyro destruction.

HAND ACTUATOR (ARM)

A critical hit to the hand actuator destroys the muscles controlling the 'Mech's wrist and hand. The 'Mech can no longer make physical weapon or clubbing attacks with that arm.

Target Number Modifiers: +1 to all punches made with that arm.

Missing Actuators: Some 'Mechs are designed without one or both hand actuators. These 'Mechs do not suffer the weapon attack modifier for the missing actuators, though the modifiers for damage reduction and physical attacks still apply (see p. 40).

HEAD BLOWN OFF (HEAD)

A hit blows off a 'Mech's head when the player rolls a 12 on the Determining Critical Hits Table for the head hit location (see *Head Destruction*, p. 44).

HEAT SINKS

A critical hit to a heat sink destroys it and reduces the 'Mech's ability to dissipate heat. For example, if a 'Mech with 16 single heat sinks has three of its heat sinks destroyed, it can now only dissipate 13 points of heat per turn.

HIP (LEG)

A critical hit to a 'Mech's hip freezes the affected leg in a straight position. The 'Mech's Walking MP is cut in half. Recalculate its Running MP accordingly by multiplying the new Walking MP by 1.5, rounding up.

After a hip critical hit, ignore any other critical hit modifiers from previous turns on that leg (other leg critical hits this turn or later still apply). This means it is possible for a 'Mech's performance to improve after a hip critical hit if it had suffered earlier critical hits to the same leg: locked in a straight position, the leg serves as a sort of crutch, making movement easier in some cases than moving on a number of free-flexing yet damaged actuators.

A critical hit to the second hip reduces the 'Mech's MP to 0, but the 'Mech is not considered immobile.

PSR Modifiers: +2 per hip critical hit; this modifier overrides all other critical hit modifiers from that leg. The controlling player must make a PSR at the end of the phase in which the critical hit occurred.

Additionally, a PSR is required every time the 'Mech runs or jumps; the roll is made at the end of the 'Mech's movement.

Four-Legged 'Mechs: A quad 'Mech with at least one hip critical hit loses its ability to ignore the Target Number modifier for firing while prone (see p. 30). Four hip critical hits reduce its MP to 0 (but it is still not considered immobile).

JUMP JET/UMU (LEG/TORSO)

For each critical hit to a jump jet, reduce the 'Mech's Jumping MP by 1. For each critical hit to an underwater maneuvering unit (UMU), reduce the 'Mech's UMU MP by 1.

LEG BLOWN OFF (LEG)

This critical hit occurs when the player rolls a 12 on the Determining Critical Hits Table for a leg location hit, and is automatic—the player may not choose to roll the three critical hits instead (see *Leg Destruction*, p. 44).

When a leg is blown off in this way, explosive components in that leg do not explode. Though the limb is destroyed, none of the armor or structure on the limb is lost (this is relevant when calculating whether the 'Mech will be required to make a Piloting Skill Roll for having taken 20+ points of damage that phase).

A leg blown off by a critical hit is left in the hex it was lost in and may be used as a club (see *Club Attacks*, p. 36).

LIFE SUPPORT (HEAD)

Any critical hit knocks out this system permanently and leaves the pilot vulnerable to increased heat; the other critical slot can still take damage, but the hit has no additional effect. The MechWarrior takes 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 15 and 25; if the Heat Scale is 26 or higher, the MechWarrior takes 2 points of damage instead.

A life support critical hit also eliminates the 'Mech's internal air supply. If the 'Mech is submerged (in Depth 2 or deeper water, or prone in Depth 1 or deeper water) in the End Phase of any turn, the pilot takes 1 point of damage.

Torso-Mounted Cockpit: Warriors using a torso-mounted cockpit suffer more severe heat effects in the event of life support damage. If a 'Mech with a torso-mounted cockpit takes a life support critical hit, the MechWarrior suffers 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 1 and 14, and 2 points of damage at the end of every Heat Phase that the Heat Scale is 15 or higher.

LOWER ARM ACTUATOR (ARM)

This critical hit destroys the actuator in the 'Mech's lower arm. Damage from punches with this arm is halved (round down).

Target Number Modifiers:

+1 to all weapons firing from that arm.

+2 to any punches or physical weapon attacks with that arm.

+2 to all clubbing attacks.

Missing Actuators: Some 'Mechs are designed without one or both lower arm actuators. These 'Mechs do not suffer the weapon attack modifier for the missing actuators, though the modifiers for damage reduction and physical attacks still apply (see p. 40).

LOWER LEG ACTUATOR (LEG)

This critical hit destroys the muscle (actuator) in the lower leg. For each lower leg actuator critical hit, reduce the 'Mech's Walking MP by 1. Recalculate its Running MP accordingly by multiplying the new Walking MP by 1.5, rounding up.

Additionally, for each lower leg actuator critical hit, all kick attacks inflict half the standard damage (round down).

PSR Modifiers: +1 each. The controlling player must make a PSR at the end of the phase in which the critical hit occurred.

Additionally, a PSR is required every time the 'Mech jumps; the roll is made at the end of the 'Mech's movement.

Target Number Modifiers: +2 to all kick attacks.

SENSORS (HEAD)

Critical hits to a 'Mech's sensors make weapon attacks increasingly difficult. Critical hits to sensors do not affect other electronic equipment mounted by the 'Mech (such as ECM, C^3, and so on), or physical attacks.

Target Number Modifiers: +2 to all weapon attacks after the first hit. A second sensor hit makes it impossible for the 'Mech to fire its weapons. In both cases, physical attacks are unaffected.

Torso-Mounted Cockpit: A 'Mech using this system may survive two sensor critical hits and still perform weapon attacks.

Instead of the standard modifiers from sensor damage, the first sensor hit incurs a +2 Target Number modifier to all weapon attacks, while the second sensor hit increases this to a +4 modifier. If both sensor hits are in the head, the +4 modifier at the second sensor hit also applies to all physical attacks and Piloting Skill Rolls. Three sensor hits (or more) completely blind a 'Mech with a torso-mounted cockpit, making all weapon attacks impossible and applying a +4 modifier to all physical attacks and Piloting Skill Rolls.

SHOULDER (ARM)

A critical hit to this actuator freezes the shoulder joint. The 'Mech may not punch or make physical weapon attacks with that arm, nor may it make clubbing attacks.

Target Number Modifiers:

+4 to all weapons firing from that arm (overrides all other weapons fire modifiers from critical hits to that arm).

+2 to all pushing attacks.

UPPER ARM ACTUATOR (ARM)

This critical hit destroys the actuator in the 'Mech's upper arm. Damage from punches with the arm is halved (round down).

Target Number Modifiers:

+1 to all weapons firing from that arm.

+2 to all punches and physical weapon attacks with that arm.

+2 to all clubbing attacks.

UPPER LEG ACTUATOR (LEG)

This critical hit destroys the muscle (actuator) in the upper leg. For each upper leg actuator damaged, reduce the 'Mech's Walking MP by 1. Recalculate its Running MP accordingly by multiplying the new Walking MP by 1.5, rounding up.

Additionally, all kick attacks inflict half the standard damage (rounding down).

PSR Modifiers: +1 each. The controlling player must make a PSR at the end of the phase in which the critical hit occurred.

Additionally, a PSR is required every time the 'Mech jumps; the roll is made at the end of the 'Mech's movement.

Target Number Modifiers: +2 to all kick attacks.

WEAPONS AND EQUIPMENT

When a weapon or piece of equipment receives a critical hit, it is rendered useless for the remainder of the game. If the item takes up more than one critical slot, its remaining slots are not also marked off: each can still be hit by subsequent critical hits. This has no effect other than to absorb the critical hit.

For example, a PPC fills three critical slots. The PPC is disabled as soon as one of its three critical slots takes a hit, leaving its remaining two slots able to take critical hits but otherwise resulting in a useless weapon.

Explosive Components: Certain items or weapons, such as Gauss rifles, will create an ammunition explosion (see p. 47) when they receive their first critical hit. Whether an item created an explosion (and how much damage this causes) is indicated in each item's description in the Weapons and Equipment chapter. In all other respects, the critical hit is treated in the same manner as above.

DESTROYING A 'MECH

A 'Mech is considered destroyed and out of the game if its MechWarrior dies or the 'Mech suffers three engine hits (remember to count engine slots in the side torso if that torso is destroyed). Destruction of the cockpit or center torso also renders a 'Mech destroyed. Lastly, unless a 'Mech has a torso-mounted cockpit (see p. 115), destruction of the head destroys the 'Mech as well. Destroyed 'Mechs are removed from the map in the end of the phase in which they were destroyed, and have no further effect on game play.

Abandoned 'Mechs: If using the optional *Ejection* rules (see p. 81), a 'Mech whose pilot has ejected is abandoned, not destroyed. The hex the 'Mech is in continues to count as being occupied by a 'Mech. Stealth armor and any equipment listed in the *Electronics* section (see p. 109) continues to function. The 'Mech must be destroyed as normal to be removed from play.

Forced Withdrawal: If using the *Forced Withdrawal* rules (see p. 81), a 'Mech which can no longer move and has all its weapons destroyed is also considered destroyed.

MechWarrior Survival: Unless their 'Mech has a torso-mounted cockpit (see p. 115), a MechWarrior dies if the head or the head's cockpit slot is destroyed. A MechWarrior always dies if their 'Mech's center torso is destroyed by damage of the Area-Effect (AE) type, or by an ammunition explosion (CASE of any kind does not prevent this). If the center torso is destroyed in any other fashion, the MechWarrior does not automatically die.

Even ejecting from a 'Mech can be dangerous, as the MechWarrior may suffer damage upon landing (see *Ejection*, p. 81).

Wreckage (Optional): If using this optional rule, when a 'Mech is destroyed it is removed from the field as normal, but the hex that it was in becomes a rough hex (see p. 60), in addition to any other terrain type or modification it already has (this includes the bottom of water hexes).

HEAT

Heat build-up is a BattleMech's greatest limiting factor. Though a 'Mech dissipates heat through its heat sinks, heat builds up when it moves or fires its weapons, and a high rate of activity can produce more heat than a 'Mech can dissipate. A warrior who pushes their 'Mech past its limits eventually must pay the price.

HEAT POINTS

The more heat points a 'Mech builds up, the greater its heat. A player tracks their 'Mech's heat points using the column of boxes on the 'Mech Record Sheet labeled "Heat Scale". The Heat Scale records heat levels from 0 to 30 heat points. The "Overflow" box is used to track heat levels above 30.

The Heat Point Table indicates the number of heat points generated by various actions and damage. It also shows the number of heat points a 'Mech can dissipate through its heat sinks and by standing in a water hex. As the 'Mech's heat reaches various levels on the Heat Scale, the 'Mech suffers the adverse effects listed for those levels.

BUILDING UP HEAT

Various activities build up heat at different rates. They can be broadly broken down into three categories: Movement, Weapons and Equipment, and Other.

MOVEMENT HEAT

Walking: Walking generates 1 heat point, no matter how many MP the 'Mech expends or how many hexes it moves.

Running: Running generates 2 heat points, no matter how many MP the 'Mech expends or how many hexes it moves.

Jumping: Standard jump jets generate 1 heat point per Jumping MP expended, with a minimum of 3 heat points. For example, when a 'Mech jumps 1, 2 or 3 hexes, it generates 3 heat points. If it jumps 4 hexes, it generates 4 heat points; if it jumps 6 hexes, it generates 6 heat points; and so on.

Improved jump jets instead generate 1 heat point per 2 hexes or portion thereof jumped, to a minimum of 3 heat points.

Underwater maneuvering units (UMUs) generate 1 heat point if used in a turn, no matter how many hexes the 'Mech moves. Mechanical jump boosters never generate heat.

Standing Up: Each attempt to stand creates 1 heat point, in addition to the heat generated by the movement mode the 'Mech is using that turn.

XXL Engines: A 'Mech with an XXL engine runs hotter than normal: standing still generates 2 heat points, Walking 4 heat points, and Running 6 heat points. The heat generated per hex jumped is doubled, with a minimum of 6 points per jump (the heat modifiers for improved jump jet use and jumping with an XXL engine cancel each other out).

WEAPONS AND EQUIPMENT HEAT

Most weapons, some equipment, and even some types of armor generate heat points when used. These sources are too many to summarize here: the Weapons and Equipment tables beginning on page 120 list the heat an item generates. Heat from such sources is never applied if the 'Mech is shut down.

Shutting Off Heat Sinks: A MechWarrior may actually wish their 'Mech to build up heat, particularly if it is equipped with triple-strength myomer (see p. 117). To this end, a player may shut off or turn on as many heat sinks as desired during the End Phase of any turn. Shut-off heat sinks dissipate no heat in the following Heat Phase, and may only be switched back on during a subsequent End Phase.

Stealth Armor: Though not listed on the Weapons and Equipment tables, stealth armor creates 10 heat points a turn when active.

OTHER HEAT

Engine Critical Hits: The first engine hit to a 'Mech generates 5 points of heat per turn. The second hit raises this to 10 (total) points of heat per turn. This is not applied if the 'Mech is shut down.

Fire: During the Heat Phase, a 'Mech occupying a burning hex on the ground absorbs an additional 5 Heat Points. A 'Mech also absorbs 2 Heat Points for each burning hex on the ground that it moved through during the Movement Phase. A 'Mech occupying a hex ignited during the Weapon Attack Phase of the turn will not be affected by the fire until the Heat Phase of the following turn (see *Fire and Smoke (Simplified)*, p. 63).

Fire is an outside heat source (see below).

Outside Heat Sources: Any heat that does not come from a 'Mech's own movement and weapons fire, such as heat-causing weapons and environmental conditions, can also build up a 'Mech's heat. This includes fire (as covered above). These heat sources are cumulative, to a maximum of 15 heat points in a single turn.

HEAT POINT TABLE

Activity	Heat Points
Walking	+1 per turn
Running	+2 per turn
Jumping	+1 per hex (min. of 3 per turn)
Attempting to stand	+1 per attempt
Weapons fire	Per Weapons Tables, pp. 120-125
Equipment	Per entry in Weapons and Equipment, pp. 120-127
Heat sink	–1 per operational heat sink –2 per operational double heat sink –1 additional per operational single heat sink under water (maximum 6 points) –2 additional per operational double heat sink underwater (maximum 6 points)
First engine hit	+5 per turn
Second engine hit	+10 (total) per turn

A Juliano is struck with a plasma rifle and a SRM-6 loaded with inferno munitions (see Inferno Missiles, p. 107). After rolling 1d6 to find the heat the plasma rifle hit causes (6 heat points) and rolling on the Cluster Hits Table for the number of inferno missiles that hit (a 9, meaning 5 missiles hit), the Juliano's controller tallies the heat generated: 6 for the plasma rifle + 10 for the infernos (2 heat points per missile x 5) = 16. However, outside heat sources can only inflict a total of 15 heat points in a turn, and so 1 point is wasted. These 15 heat points are added to the heat the Juliano generated by its own movement and attacks that turn.

DISSIPATING HEAT

Heat sinks are the primary way in which a 'Mech rids itself of heat. However, there are a few others.

Heat Sink Types: Heat sinks may be standard or double. Standard heat sinks dissipate 1 heat point per turn, and double heat sinks dissipate 2 heat points per turn.

On a record sheet, if a 'Mech has double heat sinks, in the section listing a 'Mech's heat sinks, the number in parenthesis is the amount of heat the 'Mech can dissipate in total. For example, a listing of 14 (28) means the 'Mech has 14 heat sinks, and dissipates up to 28 heat points each turn.

Coolant Pods: A coolant pod increases the cooling capacity

• HEAT DATA, SINGLE AND DOUBLE HEAT SINKS •

of the Mech's active heat sinks by 1 point each, regardless of heat sink type (see p. 119).

Partial Wing: A partial wing (see p. 116) dissipates 3 heat points per turn, whether the 'Mech jumped or not.

Snow: Deep snow dissipates 1 heat point per turn if at least one heat sink is mounted in the legs (if the 'Mech is prone, 3 heat points per turn are dissipated).

Water: Submerged heat sinks dissipate twice as much heat. A 'Mech standing in Depth 1 water has its leg-mounted heat sinks submerged. A 'Mech standing in Depth 2 or deeper water or prone in Depth 1 or deeper water has all of its heat sinks submerged (even those in the engine). No more than 6 additional heat points per turn can be dissipated due to water.

RECORDING HEAT BUILD-UP

During each turn's Heat Phase, each player adds up the heat points built up by their 'Mech, as well as any heat from outside sources (see *Outside Heat Sources*, p. 50). They then subtract the heat dissipated by heat sinks. The result may be positive or negative. Add this number to the current level of heat shown on the Heat Scale. If the result is negative, adjust the Heat Scale downward; if the result is positive, adjust it upward. The Heat Scale cannot drop below 0.

Overflow Heat: Mark any heat generated beyond 30 in the "Overflow" box on the record sheet.

EFFECTS OF HEAT

Excessive heat can injure a MechWarrior. It also causes a 'Mech to function less efficiently: the 'Mech moves more slowly, fires less accurately, and may shut down or even explode. Some of these effects are permanent; others disappear as the 'Mech cools.

Heat Timing: The 'Mech suffers heat effects after players have adjusted the heat level for the turn as described above in *Recording Heat Build-up*.

• HEAT DATA TABLE, WITH COLOR-CODED EFFECTS OVERLAY •

HEAT DATA

Heat Level*	Effects
30	Shutdown
28	Ammo Exp. avoid on 8+
26	Shutdown, avoid on 10+
25	–5 Movement Points
24	+4 Modifier to Fire
23	Ammo Exp. avoid on 6+
22	Shutdown, avoid on 8+
20	–4 Movement Points
19	Ammo Exp. avoid on 4+
18	Shutdown, avoid on 6+
17	+3 Modifier to Fire
15	–3 Movement Points
14	Shutdown, avoid on 4+
13	+2 Modifier to Fire
10	–2 Movement Points
8	+1 Modifier to Fire
5	–1 Movement Points

Movement Effect | Weapon Attack Effect
Shutdown Effect | Ammunition Effect

MOVEMENT

At 5, 10, 15, 20, and 25 heat points, subtract the number indicated from the 'Mech's Walking MP. For example, at anywhere from 5 to 9 heat points, subtract 1 from the 'Mech's Walking MP. Remember that Running MP is 1.5 times the current Walking MP; if the Walking MP is reduced, the player must also recalculate his 'Mech's Running MP, rounding fractions up.

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

When the Heat Scale drops below the point at which these effects occur, the 'Mech regains 1 Walking MP, though previous applicable losses remain in force. For example, if the heat falls below 10 on the Heat Scale but remains at or above 5, the 'Mech continues to suffer –1 MP until the heat drops below 5.

Jumping: Reductions in Walking MP from heat build-up do not affect a 'Mech's Jumping (or UMU) MP.

A Hatamoto-Chi *begins a turn with a Heat Scale level of 4. During the turn, the 'Mech fires both its PPCs and walks (generating 21 heat points). It only has sixteen standard heat sinks working, which dissipate 16 heat points, leaving 5 to build up. During the Heat Phase, these 5 points are added to the 4 already on its Heat Scale, bringing the total to 9. In the next turn, the 'Mech must reduce its Walking MP by 1 (giving it a Walking MP of 3 and a Running MP of 5) and add +1 to its Target Number for weapon attacks (but not physical attacks).*

If the 'Mech repeats these actions in the next turn, the player must add 5 more heat points to the Heat Scale, bringing the total to 14. Now the player must make a 2D6 roll of 4 or higher to avoid shutdown. Even if they manage this, the Hatamoto-Chi*'s Walking MP is still reduced by 1 more, to 2, until its heat falls below 10 on the Heat Scale. At the same time, the 'Mech applies a +2 Target Number modifier to its weapon attacks.*

WEAPON ATTACKS

At 8, 13, 17, and 24 heat points, add the number indicated to the 'Mech's Target Number for weapon attacks. For example, at 8 heat points, add 1 to all weapon attack Target Numbers for as long as the heat remains at or above 8. As with movement, these effects are not cumulative, and disappear when heat build-up is reduced.

These penalties apply only to weapon attacks, not physical attacks.

SHUTDOWN

At 14, 18, 22, 26 and 30 heat points, a 'Mech attempts to shut down its power plant automatically as a safety procedure.

A conscious MechWarrior can override the power plant's safety shutdown procedure, as indicated by the "Avoid" Target Number listed with the effect, though shutdown cannot be avoided at 30 or more heat points. If their 'Mech's Heat Scale is at or above 14, the player rolls 2D6 once during the Heat Phase. If the roll result is equal to or greater than the highest Avoid Target Number corresponding to the 'Mech's heat level, the pilot avoids shutdown for that turn. If heat accumulation reaches two or more trigger levels in one turn, roll 2D6 only once, against the highest Avoid Target Number.

If a 'Mech shuts down, a Piloting Skill Roll (see p. 53) is immediately required, with a +3 Target Number modifier (any other PSR required while the 'Mech is shutdown automatically fails). Additionally, the 'Mech becomes immobile (see p. 16). Its equipment ceases to function except for heat sinks and life support, and it cannot attack or take any other action. Engine critical hits do not generate heat while a 'Mech is shut down. Outside heat sources (see p. 50) still create heat build-up, however.

For every turn that the 'Mech is shut down, its heat sinks dissipate heat as normal, and the player may attempt to restart the power plant during each Heat Phase. To do this, the player rolls 2D6. If the result is equal to or greater than the highest current Avoid Target Number, the player can restart the power plant. A 'Mech may move and fire in the turn following the turn in which the power plant is restarted. When the heat drops below 14 on the Heat Scale, the power plant restarts automatically, even if the pilot is out of action.

Aimed Shots: Other players can target a shutdown 'Mech with aimed shots (see p. 30).

Overflow Heat: A 'Mech's heat level must be below 30 before a restart can occur.

Voluntary Shutdown: Players may elect to voluntarily shut down a 'Mech during any End Phase. They may then restart the power plant in any subsequent End Phase, provided they first pass any Shutdown Avoid checks due to heat (if needed), and provided there is no damage (such as three or more Engine Shielding criticals) that prevents a restart.

AMMUNITION

If a 'Mech with unemptied bins of explosive ammunition reaches 19 points or higher on the Heat Scale, one of these bins may explode. To avoid an explosion, the 'Mech's controller must roll 2D6 once and meet or exceed the Target Number of the highest Ammo Explosion threshold reached; a 'Mech with 19-22 heat would need a 4+, 23-27 heat a 6+, and 28-30 heat an 8+ to avoid.

When an overheated 'Mech's ammo explodes, the ammunition critical slot with the most destructive ammo per shot explodes first. Ammo per shot is defined as the Damage Value done by one turn's worth of shots. For example, the ammo per shot of a machine gun slot has a Damage Value of 2, a LRM-15 a Damage Value of 15, and a SRM-6 a Damage Value of 12. When the 'Mech carries two ammo slots with equivalent per-shot Damage Values, the 'Mech's controlling player chooses which ammo explodes.

All of the appropriate ammo type in a single critical slot explodes. If more than one critical hit slot holds the appropriate ammo type, the one with the most shots remaining explodes. If two or more locations have an equal number of shots remaining, randomly determine which one explodes.

Resolve the explosion following the rules in *Critical Hit Effects*, page 45. An ammunition explosion has no effect on any 'Mech other than the one that suffered it.

Exploding/One-Shot Weapons: Exploding weapons and their ammunition (such as Gauss rifles), as well as all One-Shot (OS) type weapons, do not explode from overheating.

Inferno Missiles: A 'Mech carrying Inferno ammunition must roll an additional set of Heat Scale Avoid Rolls to determine whether or not its inferno ammo explodes (see p. 107).

MechWarrior Damage: Ammunition explosions automatically injure the MechWarrior, inflicting 2 points of damage and forcing a Consciousness Roll (see p. 58).

DAMAGE TO MECHWARRIORS

If a 'Mech's life support system takes one or more critical hits, its MechWarrior suffers damage when the 'Mech's heat levels are high. The MechWarrior takes 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 15 and 25; if the Heat Scale is 26 or higher, the MechWarrior takes 2 points of damage instead.

Torso-Mounted Cockpit: If a 'Mech with a torso-mounted cockpit takes a life support critical hit, the MechWarrior instead suffers 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 1 and 14, and 2 points of damage at the end of every Heat Phase that the Heat Scale is 15 or higher.

OTHER ACTIONS

While events such as movement or combat generally occur at fixed intervals, there are several important events that can occur at a variety of points in a *BattleTech* turn. Rules that can apply in multiple phases are covered in this section.

PILOTING SKILL ROLLS (PSR)

MechWarriors must make Piloting Skill Rolls (PSRs) under a variety of circumstances. A PSR is usually made to avoid falling; unless specified otherwise, failing a PSR means the 'Mech falls. All events that require a PSR are listed in the Piloting Skill Roll Table on page 54.

Four-Legged 'Mechs: A quad 'Mech adds a –2 modifier to all Piloting Skill Rolls made to avoid falls as long as none of its legs are destroyed.

Immobile 'Mechs and Unconscious Warriors: Immobile 'Mechs or 'Mechs with an unconscious warrior forced to make a Piloting Skill Roll—such as when shut down due to overheating—automatically fail the roll.

'Mech Damage: A 'Mech only makes one Piloting Skill Roll for taking 20 or more damage points in a single phase, regardless of how many points of damage is taken that phase.

Multiple Rolls: If a 'Mech is required to make multiple Piloting Skill Rolls at the same time (e.g. a 'Mech is kicked and takes 20 damage from that kick, both of which force a PSR), each PSR is rolled one at a time (though all modifiers are cumulative and apply to all rolls). If one of these PSRs fails, any remaining PSRs in that sequence are ignored.

Prone 'Mechs: A prone 'Mech ignores all Piloting Skill Rolls required to avoid falls, except when attempting to stand.

MAKING PILOTING SKILL ROLLS

The Piloting Skill Roll Table (see p. 54) lists the events that require a player to make a PSR for their MechWarrior. A PSR is required every time one of these events occurs (the exact moment in the phase when the PSR is made is explained under *Piloting Skill Roll Timing*, below). Piloting Skill Rolls use the MechWarrior's Piloting Skill as the base Target Number, modified by the following:

- all indicated modifiers for the event
- all modifiers applied by other events which have already occurred in the same phase
- all modifiers applied due to Preexisting Damage (as seen on the Piloting Skill Roll Table)

The result is the modified Target Number.

To make a Piloting Skill Roll, the player rolls 2D6. If the result is equal to or greater than the modified Target Number, the roll succeeds. If the result is less than the modified Target Number, the roll fails.

A player cannot choose to intentionally fail a Piloting Skill Roll.

PILOTING SKILL ROLL TIMING

Exactly when a Piloting Skill Roll is made depends on the phase of the turn and the action which triggers it.

Movement Phase: Piloting Skill Rolls required due to a movement action (entering water, trying to stand up, entering rubble, and so on) are made immediately following the action. As such, if a PSR is made to enter a hex, and the PSR fails, the 'Mech falls in the hex it entered.

PILOTING SKILL ROLL TABLE

Situation	Modifier
Damage to 'Mech	
'Mech takes 20+ damage points in one phase	+1
'Mech fusion reactor shuts down	+3[1]
Leg/foot actuator destroyed	+1
Hip actuator destroyed	+2
Gyro hit	+3
Gyro destroyed	Automatic fall[2]
Leg destroyed	Automatic fall[3]
Physical Attacks Against 'Mech	
'Mech was kicked	0
'Mech was pushed	0
'Mech was successfully charged/hit by death from above	+2
'Mech's Actions	
Missed kick	0
Made a successful charging attack	+2
Made a successful death from above attack	+4[4]
Entered Depth 1 water hex	–1
Entered Depth 2 water hex	0
Entered Depth 3+ water hex	+1
Attempted to stand	0
Entered sand hex	+1
Entered light jungle hex	+1
Entered heavy jungle hex	+2
Entered rubble hex	0
Running after facing change while on pavement	See *Skidding*, p. 68.
Jumped with damaged gyro or leg/foot/hip actuators	per Preexisting Damage, at right
Jumped with destroyed leg	per Preexisting Damage, at right
Ran with damaged hip or gyro	per Preexisting Damage, at right
Terrain Modifications	
Ice	+3[5]
Mud	+1[5]
Deep Snow	+1[5]
Swamp	+1[5]

[1]Only during the phase that the reactor shuts down. If the MechWarrior must make a Piloting Skill Roll for a 'Mech with a shutdown reactor, the 'Mech automatically falls; in either case, if the 'Mech falls, the warrior automatically takes 1 point of damage (see *Falling Damage to the MechWarrior*, p. 57).

[2]The modifier for a destroyed gyro is +6 when making a Piloting Skill Roll to avoid damaging the MechWarrior during an automatic fall.

[3]The modifier for a destroyed leg is +5 when making a Piloting Skill Roll to avoid damaging the MechWarrior during an automatic fall.

Situation	Modifier
Special Cases	
MechWarrior trying to avoid damage when their 'Mech is falling	+1/every level above 1
Four-legged 'Mech with all legs	–2
Unintentional charge	+3
'Mech mounts AES in its legs	–2
'Mech mounts Hardened Armor	+1
'Mech mounts small or torso-mounted cockpit	+1
Preexisting Damage	
Per leg/foot actuator previously destroyed	+1
Per hip actuator previously destroyed	+2[6]
Gyro previously hit	+3
Leg previously destroyed	+5[7]
Skidding Movement	
Hexes moved in turn	
0–2	–1
3–4	0
5–7	+1
8–10	+2
11–17	+4
18–24	+5
25+	+6
Building Movement[8]	
'Mech entering/leaving light building hex	0
'Mech entering/leaving medium building hex	+1
'Mech entering/leaving heavy building hex	+2
'Mech entering/leaving hardened building hex	+5
Hexes moved in turn	
1–2	0
3–4	+1
5–6	+2
7–9	+3
10–17	+4
18–24	+5
25+	+6

[4]Automatic fall if death from above attack is unsuccessful.

[5]This penalty applies to all PSRs made in this hex (including the PSR made when entering it).

[6]Ignore all modifiers from previous critical hits on that leg.

[7]Do not add modifiers for other damaged actuators in the leg.

[8]To avoid damage only. Does not result in a fall if Piloting Skill Roll fails. See *Buildings*, p. 66. Add an additional +1 modifier if 'Mech is charging or being charged (in addition to the +2 modifier normally required in that situation).

Multiple rolls may be required during movement. For example, if a 'Mech wants to move through three hexes of Depth 1 water, the player must make a PSR when the 'Mech enters each water hex.

If a PSR is required in the Movement Phase due to weapon attacks (possibly due to attacks by hidden 'Mechs; see p. 82), the roll is also made immediately.

Attack Phases: All Piloting Skill Rolls required due to attacks are made at the end of the phase the attacks occurred in (i.e. after all attacks that phase), applying any modifiers resulting from damage that phase.

Consciousness Rolls: If both a Consciousness Roll and a PSR are required at the same time, the Consciousness Roll comes first.

Displacement: Any PSR required due to displacement (see below) happens immediately, regardless of the phase.

MechWarrior Damage: Any PSR made to see if a MechWarrior is damaged by a fall (see p. 57) is made immediately, before applying any damage caused by the fall.

EXPANDED DAMAGE MODIFIERS (OPTIONAL)

As an option, the Piloting Skill Roll modifier for taking 20+ points of damage in a single phase may be modified by the number of damage points taken. For every 20 points of damage a 'Mech takes, adds a +1 modifier. For example, a 'Mech that takes 40 to 59 points of damage receives a +2 modifier, a 'Mech that takes 60 to 79 points of damage receives a +3 modifier, and so on.

DISPLACEMENT

A 'Mech forced into another hex is displaced. This typically occurs due to charge, push, and death from above attacks.

If a 'Mech is displaced into a hex of the same level, or one or two levels higher, check if the newly-entered hex contains another 'Mech. If so, see *Domino Effect*, at right.

If a 'Mech is displaced downward, what happens depends on how many levels down the 'Mech is displaced, and if the newly entered hex is occupied by another 'Mech:

- If the hex the 'Mech is displaced into has no other 'Mech in it, and is one level lower, follow the normal rules called for by the action that caused the displacement.
- If the hex the 'Mech is displaced into contains another 'Mech, and that hex is one level lower, a domino effect occurs (see right).
- If the hex the 'Mech is displaced into has no other 'Mech in it, and is two or more levels lower, an automatic fall occurs (see *Falling*, p. 56).
- If the hex the 'Mech is displaced into contains another 'Mech, and that hex is two levels or more lower, then an accidental fall from above occurs (see p. 57).

Actions that cause a displacement often call for a Piloting Skill Roll by the 'Mech being displaced. Any fall that results is a 0-level fall that occurs in the hex the 'Mech is displaced into. However, if a 'Mech is displaced down two or more levels, any such PSR is ignored, as the 'Mech automatically falls; the fall distance is calculated from the 'Mech's level before the fall as normal.

Buildings: If a 'Mech is displaced into a building hex, both are damaged as if the displaced 'Mech had voluntarily moved into it and failed its PSR (see *Moving Into Buildings*, p. 67). Remember that each level of a building hex is separate for stacking purposes.

During the Weapon Attack Phase, a 'Mech whose MechWarrior has a Piloting Skill of 5 takes 40 points of damage and loses two leg actuators. At the end of the phase, the player makes three Piloting Skill Rolls: one for taking 20 or more points of damage, and two more for losing two leg actuators. The modified 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 'Mech is kicked in the leg by two other 'Mechs, losing another actuator and taking 20 more points of damage. At the end of the phase, the player must make four more Piloting Skill Rolls: two for getting kicked twice, one for losing a leg actuator, and one for the 20 points of damage. The modified Target Number for each of the four rolls is 9: 5 (Piloting Skill) + 2 (existing actuator damage) + 1 (another damaged leg actuator) + 1 (20+ points of damage).

If resolving building collapses and displacement, see *Damage and Displacement* on page 73.

Destroyed 'Mechs: A 'Mech destroyed by an action that would also displace it (such as a charge) does not move or resolve any displacement.

Forced Off-Board: A 'Mech displaced into a partial hex or off the playing area is considered destroyed for the remainder of the scenario.

Prohibited Displacement: A 'Mech cannot be displaced into a hex three or more levels higher than the hex it was moved from. In such a case, the displacement cannot occur, and neither the target nor attacking 'Mech move, unless the action specifically states otherwise. All other effects of the displacing action occur.

Timing: Displacement (including any resulting PSRs and damage) is resolved immediately after the action that caused it, regardless of what phase it is. If any damage was inflicted by the action that caused the displacement, apply it before resolving the displacement, even though the phase has not yet ended.

If a physical attack might cause displacement, and in doing so interrupt another physical attack, the 'Mech with the lower Initiative (i.e. the first to move) resolves its physical attack first. If both attackers are on the same side, the controlling player(s) may determine which attack is resolved first. If no valid target exists, the attack automatically fails.

DOMINO EFFECT

If a 'Mech is forced into a hex occupied by another 'Mech, the 'Mech already in the hex (known as "the target 'Mech") is forced out of that hex. This is called a domino effect. The target 'Mech immediately makes a Piloting Skill Roll.

If the target 'Mech fails its PSR, it is displaced into the hex in the direction opposite the hexside where the intruding 'Mech entered the hex. The target 'Mech then falls in that hex.

Dodging a Domino Effect: If the target 'Mech's PSR is instead successful, and the domino effect also originates from one of the target's four side hexes, then the target can dodge the domino effect by immediately moving one hex directly forward or backward, so long as all of the following are true:

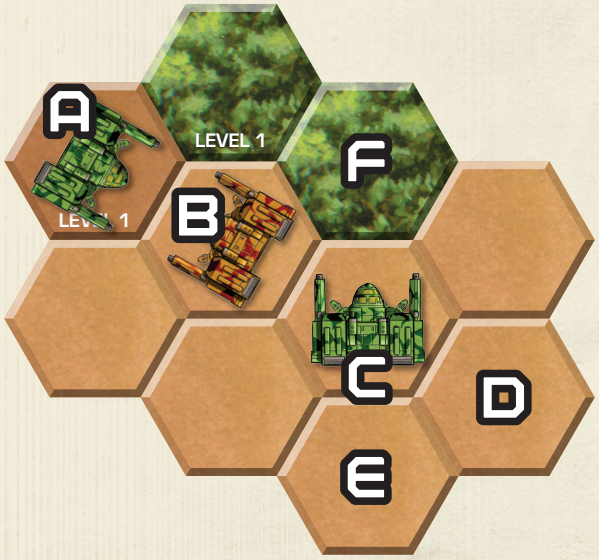
- it is mobile
- it is standing
- it has enough MP unspent that turn to move into the hex
- it did not jump that turn
- the hex being moved to does not already have a 'Mech in it

As usual, the 'Mech cannot move backward if it ran that turn.

If the target 'Mech's PSR is successful but it cannot dodge, it is still forced into the next hex as noted above, but does not fall.

Multiple Domino Effects: If a 'Mech is the target of a domino effect, and there is another 'Mech in the hex it is displaced into, another domino effect occurs. Such domino effects continue as long as 'Mechs remain in hexes adjacent to one another in the direction of the effect.

If there is no legal hex for the last 'Mech in a multiple domino effect chain to be displaced into, it is destroyed.



• UNIT DISPLACEMENT DIAGRAM •

In the Displacement diagram above, the 'Mech in Hex A is displaced one level down into Hex B. The 'Mech already in Hex B makes an immediate Piloting Skill Roll. We'll assume it has no MP left. As such, whether it passes or fails it will in turn be forced into Hex C.

The 'Mech already in Hex C does have MP left, and the displaced 'Mech is coming from one of its side hexes, so the 'Mech in Hex C can try to dodge. First, its controller must make a PSR. If its roll fails, it is forced into Hex D and falls (and if another 'Mech was in that hex, the domino effect would continue).

If its PSR is successful (and it did not run that turn), it may move one hex directly backward, into Hex E, ending the domino effect. If the 'Mech had 2 or more MP left, it could instead move forward into the light woods in Hex F.

FALLING

If a 'Mech falls, it suffers damage and its MechWarrior may be injured as well.

LOCATION AFTER A FALL

When a 'Mech falls while moving from one hex to another, it falls in the hex it was moving into. If a fall occurs because of an attack or any other combat-related reason, the 'Mech falls in the hex it occupies.

Unless stated otherwise, 'Mech falls are 0-level falls; this includes 'Mechs that fall due to jumping. However, if a 'Mech is displaced downwards two or more levels (see *Displacement*, p. 55), subtract the level of the hex the 'Mech landed in from the level of the hex it was in immediately prior to the fall: this is the number of levels it fell.

Falling and Collisions: If a 'Mech falls two or more levels into a hex occupied by another 'Mech, the two 'Mechs may collide (see *Accidental Falls From Above*, p. 57).

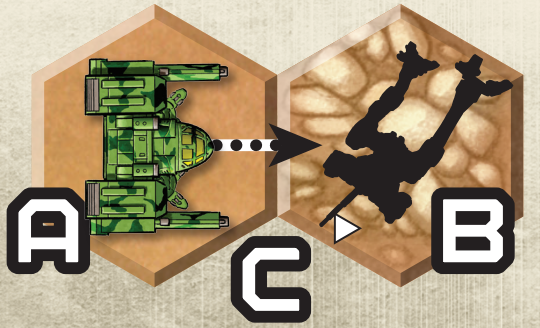
FACING AFTER A FALL

When a 'Mech falls, it takes damage and its facing may change. This facing change determines the Hit Location Table used when assigning damage from the fall. To determine the 'Mech's facing after the fall and the area of the 'Mech that takes damage, roll 1D6 and consult the Facing After Fall Table (see p. 57).

A fallen 'Mech lies prone and face down. 'Mechs that fall on their sides or back automatically roll over to lie face down after taking damage from that fall.

Damage Arc for Prone 'Mechs: If the target 'Mech is prone, use the hexside its head is pointing at as its facing. Any damage to a prone 'Mech from outside sources such as weapons fire is treated as if the 'Mech was standing with that facing.

In the Falling Diagram below, a player wants their 'Mech in Hex A to move into Hex B. As soon as the player enters the rubble hex, they must make a Piloting Skill Roll. The roll fails, and so the 'Mech's controller rolls 1D6 and consults the Facing After Fall Table. A result of 3 means the 'Mech is now facing two hexsides to the right (clockwise) of its original facing and takes the damage from the fall on its right side (i.e. it uses the right side column of the Hit Location Table). It lies prone and face down in the rubble hex, facing hexside C.



• FALLING DIAGRAM •

A prone Grasshopper *in a Level 1 hex attempts to stand. The MechWarrior fails the Piloting Skill Roll, and so the 'Mech falls again in the same hex. This means the 'Mech fell 0 levels. The player rolls a 1 on the Facing After Fall Table and finds that the 'Mech landed on its front, so the damage locations are rolled on the Front column of the Hit Location Table.*

The Grasshopper *suffers 7 points of damage (70 tons divided by 10 equals 7; the number of levels fallen plus 1 equals 1; 7 x 1 = 7). The player divides the 7 points into one 5-point grouping and one 2-point grouping, and then uses the Front column of the Hit Location Table to determine the exact location of the damage.*

FALLING DAMAGE TO A 'MECH

A fall deals damage equal to 1 point for every 10 tons that the 'Mech weighs (rounding up), multiplied by the number of levels plus 1 that the 'Mech fell. Divide the damage into 5-point Damage Value groupings (assigning any remaining points of damage to an undersized grouping), and then determine a hit location for each grouping. For example, a 'Mech that suffers 33 points of falling damage takes six 5-point hits and one 3-point hit, each assigned as a separate hit. Use the appropriate column of the Hit Location Table (see p. 33), as specified by the Facing After Fall Table (see p. 57).

If the fall occurs during the Movement Phase, resolve the damage as it happens.

Water: If a 'Mech falls when standing in Depth 1 or greater water, it suffers normal falling damage divided by 2 (round down).

A 'Mech above the water's surface that falls into water suffers normal falling damage divided by 2 for hitting the water's surface, and also normal falling damage divided by 2 for the fall from the water's surface to the bottom of the water hex. Damage for hitting the water's surface equals tonnage/10 (round up) x (# of levels fallen + 1)/2). Normal damage for hitting the bottom of the water hex equals tonnage/10 (round up) x (depth of water hex + 1)/2. Damage is resolved separately; round any fractional final damage values down.

If a 'Mech takes damage in water, it may suffer a hull breach. See page 65.

FACING AFTER FALL TABLE

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

The MechWarrior piloting the Grasshopper *in the previous example has a Piloting Skill of 5. It does not have any pre-existing damage, it did not take 20 points of damage in this turn, and it fell 0 Levels, and so no modifiers apply to the Target Number for the Piloting Skill Roll. Its controller therefore need only roll 5 or better to avoid damaging the MechWarrior.*

FALLING DAMAGE TO A MECHWARRIOR

A player makes a second Piloting Skill Roll after every fall. All modifiers applied to the PSR that caused the fall are applied to this second roll, with an additional +1 modifier applied to the Target Number for every level above 1 fallen. If the roll succeeds, the MechWarrior avoids taking damage. If the roll fails, the MechWarrior takes 1 point of damage.

Automatic Damage: A MechWarrior automatically takes 1 point of damage if at the time of the fall they are unconscious, the 'Mech is immobile (see p. 16), or if the modified Target Number for the PSR to avoid MechWarrior damage is greater than 12.

ACCIDENTAL FALLS FROM ABOVE

A 'Mech cannot intentionally fall onto another 'Mech. However, if a 'Mech is displaced into a hex two or more levels lower than its previous hex, and that hex already contains a 'Mech, then the displaced 'Mech might fall onto the target 'Mech. The displaced 'Mech makes an attack roll with a base Target Number of 7, modified by target movement and terrain.

FALLING 'MECH MISSES TARGET

If the attack roll fails, the falling 'Mech lands in an adjacent hex as close as possible to the hex from which it fell; if multiple such hexes exist, randomly determine which hex it lands in. Resolve this as a standard fall.

FALLING 'MECH HITS TARGET

If the attack roll is successful, divide the falling 'Mech's weight by 10 (round up), and multiply this by the number of levels fallen to the point of impact (the level of the underlying hex plus the level of the target 'Mech). Divide this damage by 2 (round down) if the target 'Mech is fully submerged. Then divide the damage into 5-point Damage Value groupings (assigning any remaining points of damage to an undersized grouping), and assign a hit location for each grouping to the target 'Mech using the Punch Location Table.

Determine damage to the falling 'Mech as normal for a fall of that height. Roll for facing as normal on the Facing After Fall Table (see left), but the 'Mech always lands on its back and all damage is applied to the rear.

The target 'Mech is immediately displaced to a random neighboring legal hex (see *Displacement*, p. 55), and must make a Piloting Skill Roll (see p. 53) with a +2 modifier or fall in the hex it was displaced into.

FORBIDDEN DISPLACEMENT

If there is no legal hex for the falling or target 'Mech to be placed in, that 'Mech is destroyed.

DAMAGING A MECHWARRIOR

Three types of damage to a 'Mech can also damage the MechWarrior inside: head hits, falling, and internal ammunition explosions. In addition, excessive heat buildup can harm the MechWarrior if the 'Mech's life support system suffers a critical hit.

A MechWarrior can withstand up to 5 points of damage. The sixth point of damage kills the warrior.

Ammunition Explosions: An ammunition explosion causes 2 points of damage to the MechWarrior as a result of severe electric shock they receive through the neurohelmet.

Falling: If a 'Mech falls, the controlling player must immediately make a Piloting Skill Roll for the MechWarrior, before applying any falling damage to the 'Mech. All modifiers applied to the PSR that caused the fall are applied to this second roll, with an additional +1 modifier applied to the Target Number for every level above 1 fallen as well. If the roll fails, the warrior takes 1 point of damage.

If the MechWarrior is unconscious, the 'Mech is shut down, or the 'Mech has lost both legs, such a fall automatically damages the warrior.

Head Hits: The MechWarrior takes 1 point of damage whenever the 'Mech's head takes a hit dealing 1 or more points of damage, even if the hit does not penetrate the 'Mech's armor (unless the 'Mech has a torso-mounted cockpit; see p. 115).

Heat: When a 'Mech's life support system takes a critical hit, the MechWarrior takes 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 15 and 25; if the Heat Scale is 26 or higher, the MechWarrior takes 2 points of damage instead.

If a 'Mech with a torso-mounted cockpit takes a life support critical hit, the danger from heat is greater. If a 'Mech with a torso-mounted cockpit suffers a life support critical hit, the MechWarrior suffers 1 point of damage at the end of every Heat Phase that the 'Mech's Heat Scale is between 1 and 14, and 2 points of damage at the end of every Heat Phase that the Heat Scale is 15 or higher.

CONSCIOUSNESS ROLLS

MechWarriors can survive up to 5 points of damage, but they may be knocked unconscious long before taking that much. Every time a warrior takes a point of damage, its controller must immediately make a Consciousness Roll. Roll 2D6 and consult the Consciousness Table below (the Warrior Data section of the 'Mech Record Sheet also contains the information on this table). If the roll result is equal to or greater than the MechWarrior's consciousness number, the warrior remains conscious. If the result is less than the consciousness number, the warrior is immediately knocked unconscious.

WARRIOR DATA

Name: _____

Gunnery Skill: ___ Piloting Skill: ___

Hits Taken	1	2	3	4	5	6
Consciousness#	3	5	7	10	11	Dead

• MECHWARRIOR DATA •

The player makes this roll for every point of damage taken; for example, in the case of an ammunition explosion in a 'Mech, that MechWarrior will need to make two consecutive Consciousness Rolls. However, if a MechWarrior is knocked unconscious, no further Consciousness Rolls need be made that turn.

A 'Mech with an unconscious warrior becomes immobile (see p. 16). The 'Mech cannot move, fire, or take any other action, though its player can still assign it a movement selection (see p. 10).

A warrior that takes 6 points of damage is dead. Remove the MechWarrior's 'Mech from the map in the end of the phase in which they were killed.

Equipment: If a MechWarrior is unconscious, any piece of equipment that can be activated or deactivated in the End Phase (see p. 12) continues to function (provided it started the turn activated), as does CASE.

Piloting Skill Rolls: If a MechWarrior is forced to make both a Consciousness Roll and a PSR at the same time, the Consciousness Roll always comes first.

All PSRs required of an unconscious MechWarrior automatically fail.

Recovering Consciousness: During the End Phase of each turn after the turn in which the MechWarrior lost consciousness, the player rolls 2D6. If the result is equal to or greater than the consciousness number for the warrior's current total damage points, the warrior regains consciousness. The player need not roll again to determine unconsciousness until the warrior takes new damage.

For example, a MechWarrior with 3 points of damage must make a single 2D6 roll in the End Phase to wake up. A roll of 7+ means the warrior regains consciousness that phase.

DUMPING AMMUNITION

During the End Phase, a player can declare that their 'Mech will dump ammunition in the next turn, meaning the MechWarrior will open the ammo loading doors on the back of the 'Mech and allow ammunition to feed out.

Ammunition must be dumped by critical hit slot (i.e. you cannot dump only some of the ammo in a slot; it must be all or nothing). Any or all slots may be dumped as a single action.

When a player announces that their 'Mech will dump ammunition, that ammunition is immediately unavailable for use. However, the actual dumping of the ammunition is not carried out until the next End Phase. For that one turn, the ammunition remains onboard in its normal location and critical hit slot, and can still suffer critical hits or the effect of heat buildup.

A 'Mech dumping ammunition cannot run or jump in that turn, but can still fire. Any hit against the dumping 'Mech on any rear torso location inflicts normal damage, but it also causes all dumping ammunition that can explode to do so (damage is applied to the location the ammunition is stored in, as normal).

Ammunition dumped in a hex cannot be exploded or used for any type of attack.

Underwater: 'Mechs may not declare their intention to dump ammunition when submerged. If a 'Mech submerges during the turn its ammunition is being dumped, all three torso locations automatically flood (see *Hull Integrity and Breaches*, p. 65).

TAG DESIGNATION

If using target acquisition gear (TAG; see p. 113), all 'Mechs making attempts to designate a target do so after the end of the Movement Phase, but before the beginning of the Weapon Attack Phase (Initiative order is still followed, however).

THE BATTLEFIELD

Warfare in the Inner Sphere occurs on hundreds of worlds and in a wide variety of environments, from the gentle rolling hills of Bountiful Harvest to the frozen, broken wastelands of Misery, from the shattered cities of Alexandria to the planet-wide dust storms of Mars. This chapter will cover some of the most common environments in which the typical warrior can expect to fight.

PLANETARY CONDITIONS

"Planetary conditions" is a general term used to describe all terrain and weather types/conditions that can be used in a game. Conditions not printed on a map can easily be represented via counters and the like, so long as their representation is understood by all players prior to the game.

Players should be aware that some conditions and terrain types introduce a number of additional modifiers and sub-rules (such as tracking the spread of fires or range reductions for battle underwater) which may complicate and slow down basic gameplay. When choosing maps and constructing scenarios, players should consider whether the increased novelty and variety that comes with certain conditions balances out the time required to manage them.

TERRAIN TYPES

The following details a variety of terrain types reasonably common in standard Terran environments. Many of the rules for these terrain types also appear elsewhere in this book, as terrain affects a game in many different ways. However, they have been summarized here for easy reference.

A terrain type's MP Modifier specifies how much additional MP is required to enter that hex, on top of the standard 1 MP required to enter any hex. For example, it costs 3 MP to enter a light jungle hex: the standard 1 MP, and the +2 MP added by light jungle.

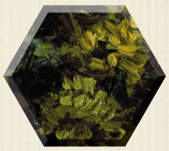
If a terrain type lists "None" for its PSR modifier, a Piloting Skill Roll is not called for when entering that terrain. In any other case, a PSR is required when entering a hex of that type, with the modifier given (which can be 0) applied to that roll in addition to the standard PSR modifiers.

CLEAR

Line of Sight (LOS): No effect.
MP Modifier: None. It costs only 1 MP to enter a clear hex.
PSR Modifier: None.
Attack Target Number Modifier: None.
Special: If a hex is not marked as containing another terrain type, assume it is clear.

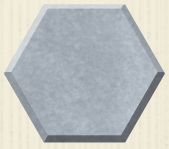
JUNGLE, LIGHT

Line of Sight (LOS): Three or more points of intervening woods/jungle block LOS. Light woods/jungle is worth 1 point.
MP Modifier: +2.
PSR Modifier: +1.
Attack Target Number Modifier: +1 if the target occupies such a hex, and +1 for each additional hex in between the attacker and target.



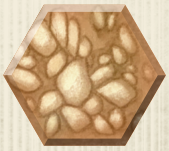
JUNGLE, HEAVY

Line of Sight (LOS): Three or more points of intervening woods/jungle block LOS. Heavy woods/jungle is worth 2 points.
MP Modifier: +3.
PSR Modifier: +2.
Attack Target Number Modifier: +2 if the target occupies such a hex, and +2 for each additional hex in between the attacker and target.



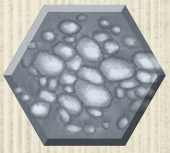
PAVEMENT

Line of Sight (LOS): No effect.
MP Modifier: None. For the MP bonus that roads sometimes bestow, see *Road Movement*, page 20.
PSR Modifier: None.
Attack Target Number Modifier: None.
Special: Pavement includes roads. 'Mechs may skid on pavement (see *Skidding*, p. 68).



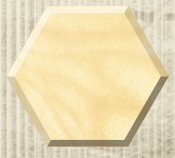
ROUGH

Line of Sight (LOS): No effect.
MP Modifier: +1.
PSR Modifier: None.
Attack Target Number Modifier: None.



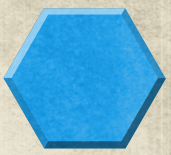
RUBBLE

Line of Sight (LOS): No effect.
MP Modifier: +1.
PSR Modifier: 0.
Attack Target Number Modifier: None.



SAND

Line of Sight (LOS): No effect.
MP Modifier: 0.
PSR Modifier: +1.
Attack Target Number Modifier: None.



WATER (DEPTH 0)

Line of Sight (LOS): No effect.
MP Modifier: None.
PSR Modifier: None.
Attack Target Number Modifier: None.

WATER (DEPTH 1)

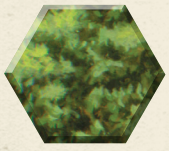
Line of Sight (LOS): No effect.
MP Modifier: +1; level change costs are not included. See *Movement in Water*, page 19.
PSR Modifier: –1.
Attack Target Number Modifier: None, but it provides partial cover to 'Mechs standing within it (see *Partial Cover*, p. 26).

WATER (DEPTH 2)

Line of Sight (LOS): No effect.
MP Modifier: +3; level change costs are not included. See *Movement in Water*, page 19.
PSR Modifier: 0.
Attack Target Number Modifier: None, but see *Attacking Underwater*, page 64.

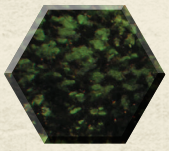
WATER (DEPTH 3+)

Line of Sight (LOS): No effect.
MP Modifier: +3; level change costs are not included. See *Movement in Water*, page 19.
PSR Modifier: +1.
Attack Target Number Modifier: None, but see *Attacking Underwater*, page 64.



WOODS, LIGHT

Line of Sight (LOS): Three or more points of intervening woods/jungle block LOS. Light woods/jungle is worth 1 point.
MP Modifier: +1.
PSR Modifier: None.
Attack Target Number Modifier: +1 if the target occupies such a hex, and +1 for each additional hex in between the attacker and target.



WOODS, HEAVY

Line of Sight (LOS): Three or more points of intervening woods/jungle block LOS. Heavy woods/jungle is worth 2 points.
MP Modifier: +2.
PSR Modifier: None.
Attack Target Number Modifier: +2 if the target occupies such a hex, and +2 for each additional hex in between the attacker and target.

TERRAIN MODIFICATIONS

The following are not terrain types of their own, but modifications to existing terrain, which may be overlaid on most of the terrain types above. For example, a heavy woods hex may also be shrouded in deep snow, and smoke may drift over any hex. All effects applied by the terrain modification stack with those of the terrain modified.

ICE (SIMPLIFIED)

If applied to water hexes, the hex is presumed to be frozen solid, and cannot be broken or melted through during the battle.

Cannot be used with Extreme Temperatures (see p. 62) of 30 degrees Celsius and above.

MP Modifier: A hex covered in ice adds +1 MP cost per hex (but see *Reckless Movement*, p. 20).

PSRs: Entering an ice hex forces a Piloting Skill Roll. All PSRs made in a hex with ice (including the PSR made when entering one) apply a +3 Target Number modifier.

MUD (SIMPLIFIED)

Cannot be used with Extreme Temperatures (see p. 62) of –30 degrees Celsius and below.

MP Modifier: A hex covered in mud adds +1 MP cost per hex (but see *Reckless Movement*, p. 20).

PSRs: Entering a mud hex forces a Piloting Skill Roll. All PSRs made in a hex with mud (including the PSR made when entering one) apply a +1 Target Number modifier.

SMOKE, LIGHT

Light smoke acts as light woods for the purpose of line of sight and weapons fire modifiers. See *Fire and Smoke (Simplified)*, page 63.

SMOKE, HEAVY

Heavy smoke acts as heavy woods for the purpose of line of sight and weapons fire modifiers. See *Fire and Smoke (Simplified)*, page 63.

SNOW, DEEP

Deep snow may not be added to water hexes. Cannot be used with Extreme Temperatures (see p. 62) of 30 degrees Celsius and above.

MP Modifier: A hex covered in deep snow adds +1 MP cost per hex (but see *Reckless Movement*, p. 20).

PSRs: Entering a deep snow hex forces a Piloting Skill Roll. All PSRs made in a hex with deep snow (including the PSR made when entering one) apply a +1 Target Number modifier.

Heat: Deep snow dissipates 1 heat point per turn if at least one heat sink is mounted in the legs (if the 'Mech is prone, 3 heat points per turn are dissipated).

SWAMP (SIMPLIFIED)

Cannot be used with Extreme Temperatures (see p. 62) of –30 degrees Celsius and below.

MP Modifier: A swamp hex adds a +1 MP cost per hex (but see *Reckless Movement*, p. 20).

PSRs: Entering a swamp hex forces a Piloting Skill Roll. All PSRs made in a hex with a swamp (including the PSR made when entering one) apply a +1 Target Number modifier.

CLEARING WOODS OR JUNGLE

'Mechs can declare weapon attacks to clear woods or jungle hexes. The Terrain Factor (TF) of a hex determines the Damage Value the hex can take before being reduced from heavy to light, or from light to rough terrain (you cannot reduce a woods or jungle hex to clear terrain). A hex's type does not change until its TF falls below the value of the reduced hex shown on the Terrain Factor column of the Terrain Factor and Conversion Table (see below).

For example, a heavy woods hex that takes 35 points of damage remains a heavy woods hex; if the same hex takes 6 more points of damage it is automatically reduced to light woods. A heavy woods hex can be changed to a rough hex in a single Weapon Attack Phase, provided enough damage is inflicted.

Finally, clearing woods or jungle requires a declared attack against that terrain's TF. If an attack against a 'Mech passes through or into such a hex, the attack does not reduce that hex's TF.

Area-Effect Weapons: Weapons of the area-effect (AE) type always damage any woods or jungle hexes in their blast area, even if the attack was not declared as an attempt to do so. Double the Damage Value of these weapons against such hexes.

Cluster Weapons: For weapons that use the Cluster Hits Table, use the weapon's full Damage Value (i.e., do not roll on the table).

Flechette Ammunition: This ammunition (see p. 107) deals double damage to woods and jungle hexes.

LOS: When trying to clear a woods or jungle hex, treat the hex as a standing 'Mech. If this "'Mech" would have partial cover from the attack (see p. 26), than the attacker cannot attempt to clear the woods/jungle.

TERRAIN FACTOR AND CONVERSION TABLE

Terrain Factor	Former Terrain	New Terrain
Heavy Jungle: 100	Heavy Jungle	Light Jungle
Light Jungle: 60	Light Jungle	Rough
Heavy Woods: 90	Heavy Woods	Light Woods
Light Woods: 50	Light Woods	Rough
Rough: 0	All others	No change

WEATHER CONDITIONS

Weather conditions represent global situations that apply to an entire playing area. This includes such situations as fighting at night, or in a pounding rainstorm.

The following entries describe rules for weather conditions. They are organized by general category, with varying degrees of conditions for each type. Note that many of these conditions can be combined at once. For example, players might agree to combine the rules for a Strong Gale or Storm, Heavy Snowfall, and Extreme Temperatures to simulate combat in a fierce blizzard.

EXTREME TEMPERATURES

If a scenario takes place under such conditions, modify movement and combat as follows.

Combat in temperatures between 50 and –30 degrees Celsius has no real game effect. However, fighting in significantly higher or lower temperatures affects how well 'Mechs dissipate heat.

For each 10 degrees C (or fraction thereof) higher than 50 degrees, add 1 heat point to the 'Mech's heat buildup each turn. For every 10 degrees C (or fraction thereof) less than –30 degrees, subtract 1 heat point from the 'Mech's heat build-up each turn.

FOG

LIGHT FOG

MP Modifier: Apply a +1 MP cost per hex (but see *Reckless Movement*, p. 20).

HEAVY FOG

MP Modifier: Apply a +2 MP cost per hex (but see *Reckless Movement*, p. 20).

Attack Target Number Modifier: +1 to all attacks of the pulse and direct-fire energy types (see *DE: Direct-Fire Energy*, p. 97).

LIGHT

Low-light conditions can present a host of battlefield complications.

Searchlights: Searchlights illuminate targets, thus offsetting many of the penalties of fighting in a low-light environment. Mounted searchlights have a range of 30 hexes.

A searchlight illuminates all targets in a chosen hex that the 'Mech with the searchlight could normally trace LOS to, in the arc where the searchlight is mounted, during any Weapon or Physical Attack Phase. A searchlight also illuminates all intervening hexes (and hence all 'Mechs in those hexes) between the target hex illuminated and the searchlight-equipped attacker in the same manner. Finally, a 'Mech with a searchlight illuminates itself.

For simplicity's sake, all searchlight beams are two levels high. A searchlight is presumed to be aiming at ground level, but a player may specify any level from 1 to 29. The searchlight then illuminates that level and the one immediately above it. For example, a searchlight could specify that it is aiming up to level 29; if it did so, levels 29 and 30 would be illuminated.

If all players agree—or the scenario designates this—'Mechs without searchlights can be given a mounted searchlight for the duration of the scenario. Each time such a searchlight-equipped 'Mech takes a hit in any torso location (Front or Rear), the attacker must roll 2D6. A result of 7+ means the searchlight is destroyed in addition to the normal effects of the attack.

Finally, a 'Mech's controller can turn its searchlight off or on during any End Phase.

DUSK/DAWN

Attack Target Number Modifier: +1 to all weapon attacks, unless the target 'Mech's heat scale is at 25 heat points or higher. Ignore these modifiers if the target is illuminated.

FULL MOON NIGHT

MP Modifier: +1 MP cost per hex (but see *Reckless Movement*, p. 20). A 'Mech with a searchlight ignores this penalty.

Attack Target Number Modifier: +2 to all weapon attacks. Reduce this by 1 for every 20 points of heat on the target 'Mech's heat scale (minimum of 0). Ignore these modifiers if the target is illuminated.

MOONLESS NIGHT

MP Modifier: +2 MP cost per hex (but see *Reckless Movement*, p. 20). A 'Mech with a searchlight ignores this penalty.

Attack Target Number Modifier: +3 to all weapon attacks, and +1 to all physical attacks. Reduce each modifier by 1 for every 15 points of heat on the target 'Mech's heat scale (minimum of 0 in both). Ignore these modifiers if the target is illuminated.

RAIN

MODERATE RAINFALL

Attack Target Number Modifier: +1 to all weapon attacks.

Mud: Moderate rainfall automatically includes all modifiers and effects of mud (see p. 61) in any clear, Depth 0 water hex on the playing area.

HEAVY RAINFALL

Attack Target Number Modifier: +1 to all weapon attacks.

PSRs: Apply a +1 modifier to all Piloting Skill Rolls.

Mud: Heavy rainfall automatically includes all modifiers and effects for mud (see p. 61); mud occurs in every hex across the playing area (except for water hexes of Depth 1+, standard roads, and building hexes).

TORRENTIAL DOWNPOUR

Attack Target Number Modifier: +2 to all weapon attacks.

PSRs: Apply a +2 modifier to all Piloting Skill Rolls.

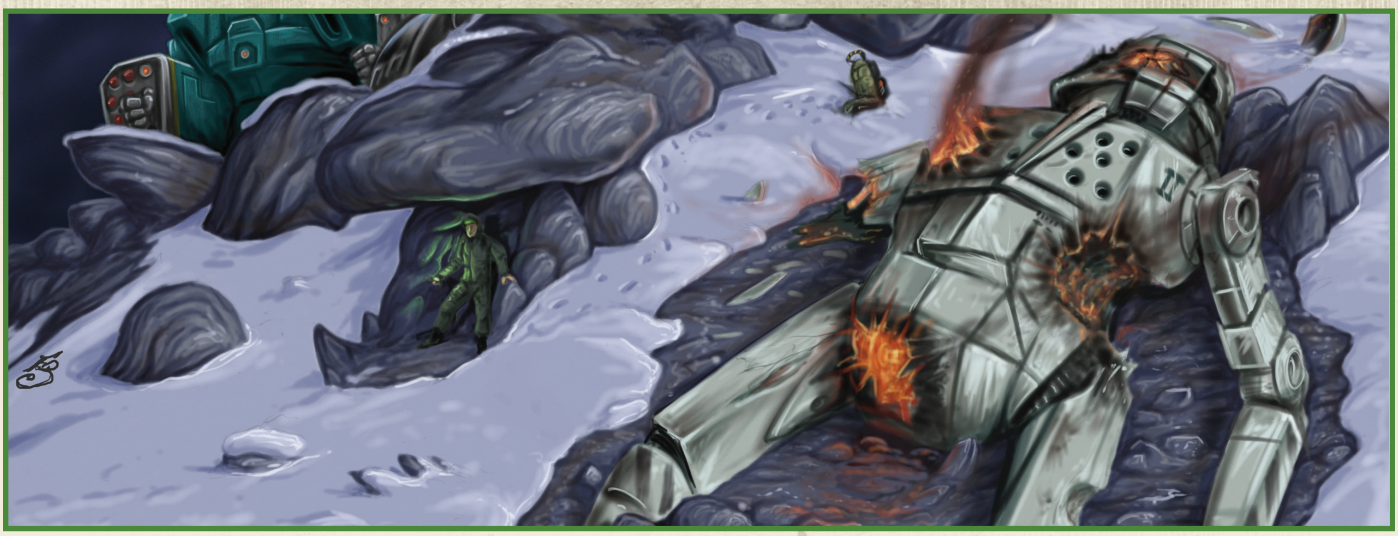
Mud: A torrential downpour automatically includes all modifiers and effects of mud (see p. 61); mud occurs in every hex across the playing area except for roads, building hexes, and water hexes of Depth 1+. Additionally, all Depth 0 water hexes become swamp hexes (see p. 61).

SNOW

MODERATE SNOWFALL

Attack Target Number Modifier: +1 to all weapon attacks.

Deep Snow: Moderate snowfall eventually covers the battlefield in snow. At the start of Turn 20 of a scenario, every hex is covered in deep snow (see p. 61). This includes the tops of buildings, but not water hexes.



HEAVY SNOWFALL

Attack Target Number Modifier: +1 to all weapon attacks.

PSRs: Apply a +1 modifier to all Piloting Skill Rolls.

Deep Snow: Moderate snowfall eventually covers the battlefield in snow. At the start of Turn 15 of a scenario, every hex is covered in deep snow (see p. 61). This includes the tops of buildings, but not water hexes.

WIND

MODERATE GALE

Attack Target Number Modifier: +1 to all attacks of the missile (M) type (see *M: Missile*, p. 97).

Fire: If using the simplified Fire and Smoke rules, fire spreads more easily in these conditions (see *Determining Fire Spread*, p. 64).

STRONG GALE (SIMPLIFIED)

Attack Target Number Modifier: +2 to all attacks of the missile (M) type, and +1 to all attacks of the direct-fire ballistic (DB) type (see *DB: Direct-Fire Ballistic*, p. 97).

PSRs: Apply a +1 modifier to all Piloting Skill Rolls.

Fire: If using the simplified Fire and Smoke rules, fire spreads more easily in these conditions (see *Determining Fire Spread*, p. 64).

STORM (SIMPLIFIED)

Attack Target Number Modifier: +3 to all attacks of the missile (M) type, and +2 to all attacks of the direct-fire ballistic (DB) type (see *DB: Direct-Fire Ballistic*, p. 97).

PSRs: Apply a +3 modifier to all Piloting Skill Rolls.

Fire: If using the simplified Fire and Smoke rules, fire spreads more easily in these conditions (see *Determining Fire Spread*, p. 64).

FIRE AND SMOKE (SIMPLIFIED)

Players may optionally use the following rules to introduce the effects of fire to the battlefield. Place a fire counter (a pre-made counter, a penny or whatever else players agree to use) on any hex that is set on fire during the game.

WIND DIRECTION

Games in which fire and smoke are present require players to first determine the battlefield's wind direction. At the start of the game, declare the same one side of every hex to be Direction 1, numbering the remaining hexsides 2 through 6 clockwise. Roll one die. The wind will blow in the direction shown on the die for the entire game. This single-hex direction is considered "downwind."

STARTING A FIRE

The ease or difficultly of starting a fire depends on whether or not it is intentionally lit.

Weather Conditions: If any rain or snow weather conditions are present on the battlefield, fires cannot be started. Fire also cannot be started in hexes with Deep Snow or Ice.

ACCIDENTAL FIRES

Any 'Mech attempting to clear a woods or jungle hex (see *Clearing Woods or Jungle*, p. 61) runs the risk of accidentally setting the woods on fire. To represent this risk, the player rolls 2D6 before each clearing attempt. On a result of 5 or less, the woods take damage as usual, but have also been set afire.

INTENTIONAL FIRES

Players who intend to start fires may declare that their 'Mech will fire its weapons at any woods, jungle, or building hex. On a successful attack against the hex, the player rolls 2D6 and consults the Fire Table (p. 64). Modifiers are applied to the Target Number, not the roll; any result equal to or higher than the Target Number means a fire has started.

EFFECTS OF FIRE

Any hex that is set on fire during the game must be marked as such with a fire counter. Once started, a fire continues to burn for the rest of the game (see *Extinguishing Fire*, p. 64).

During the Heat Phase, a 'Mech occupying a burning hex adds 5 Heat Points. A 'Mech also absorbs 2 Heat Points for each burning hex that it moved through during the Movement Phase. A 'Mech occupying

FIRE TABLE

Weapon Type	Target Number
Inferno	Automatic
Plasma Weapon or Flamer	3+
Direct-Fire Energy or Pulse Weapon	7+
Missile or Direct-Fire Ballistic	9+

Environment*	Modifier
Woods	+0
Jungle	+1
Building: Light	–2
Building: Medium	–1
Building: Heavy	+0
Building: Hardened	+2
Extreme Temperatures	**

*Environments not listed cannot be set on fire.

**For every 10 degrees above 30 degrees Celsius, apply a –1 modifier. For every 10 degrees below –30 degrees Celsius, apply a +1 modifier.

a hex ignited during the Weapon Attack Phase of the turn will not be affected by the fire until the Heat Phase of the following turn.

Buildings: Every End Phase, a building that is on fire loses 2 CF (regardless of its size or type).

ILLUMINATION

If Light-based weather conditions are in play (see p. 62), any hex that is on fire is illuminated, along with all hexes adjacent to it.

SMOKE

In the End Phase in which a fire was started, any hex on fire fills the first two hexes downwind from it with Smoke (see p. 61). However, a hex that is on fire cannot have smoke as well.

Light vs. Heavy: Smoke generated in this fashion is always light smoke, unless a heavy or hardened building is burning, in which case it is heavy smoke.

SPREADING FIRE

Fires on the battlefield can spread from hex to hex in the direction of the wind through woods, jungle, and some building hexes, but they cannot spread into other terrain.

DETERMINING FIRE SPREAD

During the End Phase of every turn, check to see if any fires currently on the map spread to additional hexes. A fire hex can spread if it has a neighboring hex downwind that can burn (a woods, jungle, or light or medium building hex) and is not currently on fire. For each such fire hex, roll 2D6. If the result is a 12, the fire spreads downwind one hex.

Buildings: Heavy and hardened buildings cannot catch fire in this fashion.

Smoke: For simplicity's sake, smoke does not spread on its own under these rules.

Wind: If using the Moderate Gale, Strong Gale, or Storm wind conditions (see p. 63), on a roll of a 12 a fire hex spreads two hexes downwind, rather than just one.

EXTINGUISHING FIRE

A fire will continue to burn for the rest of the game unless extinguished. Most 'Mechs lack the equipment needed to put out a fire, making extinguishing one in battle a tricky proposition. If 40 or more points of damage from weapons of the area-effect Type are dealt to a hex on fire in a single phase, the fire is extinguished.

Smoke: Remove any smoke produced by extinguished fire hexes during the End Phase of the turn the fire was extinguished.

UNDERWATER COMBAT

To be considered underwater (i.e. fully submerged), a 'Mech must be standing in a Depth 2 or deeper water hex, or lying prone in a Depth 1 water hex. A 'Mech standing in a Depth 1 water hex has only its legs submerged (i.e. is partially submerged).

ATTACKING UNDERWATER

A 'Mech standing in Depth 1 water may make underwater attacks with leg-mounted weapons, as well as attacks from weapons mounted in any other location against 'Mechs not fully submerged. Underwater 'Mechs can attack a standing 'Mech in Depth 1 water; the target has partial cover (see p. 26), and an attack striking any location except for a leg strikes the cover.

A 'Mech underwater cannot normally fire on or take fire from other 'Mechs unless those 'Mechs are also underwater. However, other 'Mechs can attack a standing 'Mech in Depth 1 water; the target has partial cover, and an attack striking any location except a leg deals no damage.

Calculate line of sight normally, treating depth as negative numbers. For example, Depth 1 is at Level –1 and so is two levels below a Level 1 hill. Depth 2 or deeper water completely blocks LOS to and from the 'Mech standing in that hex, while LOS is blocked to a prone 'Mech in Depth 1 or deeper water.

'Mechs without a clear line of sight cannot attack one another. The Underwater Line of Sight Table (see p. 65) summarizes which 'Mechs can fire at each other, and with what modifications. Only lasers and PPCs may be used in an underwater attack; torpedo launchers (see p. 104) are the sole exception (see the Underwater Range Table, p. 65).

Underwater Ranges: Water greatly reduces the ranges of all energy weapons. When a submerged 'Mech makes an attack, use the weapon ranges shown on the Underwater Range Table to determine range modifiers. If a weapon listed in the Weapons and Equipment Tables does not appear on the Underwater Range Table, it cannot be used underwater; see *Torpedo (SRT, LRT, NLRT) Launcher*, page 104, for the sole exception.

UNDERWATER LINE OF SIGHT TABLE

Attacker is:	Target is:		
	Underwater[1]	*Ground*[2]	*'Mech at Depth 1*
Underwater[1]	Yes	No	Yes[4]
Ground[2]	No	Yes	Yes[3]
'Mech at Depth 1	Yes[6]	Yes[5]	Yes[7]

[1]Includes standing 'Mechs at Depth 2+ and prone 'Mechs at Depth 1.
[2]Includes 'Mechs standing at Level 0+.
[3]At +1 for partial cover; use the appropriate column of the 'Mech Hit Location Table, with any leg hits striking the water and inflicting no damage.
[4]At +1 for partial cover; use the appropriate column of the 'Mech Hit Location Table, with any location hit but leg hits striking the water and inflicting no damage.
[5]Can only fire torso, arm or head weapons.
[6]Can only fire leg weapons.
[7]Leg weapons can only hit legs; all other weapons can only hit non-submerged locations (see *Water*, under *Partial Cover Modifier*, p. 26).

Physical Attacks: Any physical attack that occurs underwater inflicts half its standard damage (round down). A 'Mech standing in Depth 2 (or deeper) water can make any physical attack, except for a death from above.

For rules on physical attacks in Depth 1 water, see *Physical Attacks and Water*, page 35.

HULL INTEGRITY AND BREACHES

When an underwater location takes damage (such as a leg in Depth 1 water), the 'Mech's controller rolls 2D6. On a result of 10 or greater, the 'Mech has lost integrity in that location, which fills with water.

Only roll for flooding when an underwater 'Mech takes damage, not for a damaged 'Mech that later enters the water (a 'Mech above the surface of a water hex that falls into a water hex does not check for hull integrity until it strikes the bottom of the water hex). However, if all armor in a location (or facing, if a torso location) is destroyed, that location is automatically breached if submerged at that time or later.

All components in a breached location become nonfunctional. If the breached location contains engine slots, the engine functions as if it took as many critical hits as engine critical slots in that location; if the breached location is the head, the 'Mech is considered destroyed and the MechWarrior killed. If a side torso is flooded, the corresponding arm and its equipment becomes nonfunctional as well. Even if a 'Mech exits the water, all equipment in flooded locations remains non-functional.

These effects are not critical hits, and will not cause ammunition to explode. Equipment and components in the breached location can still take critical hits, even though the component is out of commission.

UNDERWATER RANGE TABLE

Weapon	Short	Medium	Long
Small Laser	1	2	—
Medium Laser	1–2	3–4	5–6
Large Laser	1–3	4–6	7–9
Light PPC*	1–4	5–7	8–10
PPC*	1–4	5–7	8–10
Heavy PPC*	1–4	5–7	8–10
Snub-nose PPC	1–6	7–8	9
ER Micro Laser	1	2	—
ER Small Laser (Clan)	1	2	3–4
ER Small Laser (IS)	1	2	3
ER Medium Laser (Clan)	1–3	4–7	8–10
ER Medium Laser (IS)	1–3	4–5	6–8
ER Large Laser (Clan)	1–5	6–10	11–16
ER Large Laser (IS)	1–3	4–9	10–12
ER PPC (Clan and IS)	1–4	5–10	11–16
Micro Pulse Laser	1	2	—
Small Pulse Laser (Clan)	1	2	3–4
Small Pulse Laser (IS)	1	2	—
Medium Pulse Laser (Clan)	1–3	4–5	6–8
Medium Pulse Laser (IS)	1–2	3	4
Large Pulse Laser (Clan)	1–4	5–10	11–14
Large Pulse Laser (IS)	1–2	3–5	6–7
Small Heavy Laser	1	2	—
Medium Heavy Laser	1–2	3–4	5–6
Large Heavy Laser	1–3	4–6	7–9
Binary Laser (Blazer) Cannon	1–3	4–6	7–9
Chemical Laser, Small	1	2	—
Chemical Laser, Medium	1–2	3–4	5–6
Chemical Laser, Large	1–3	4–6	7–9
ER Pulse Laser, Small	1	2	3–4
ER Pulse Laser, Medium	1–3	4–6	7–9
ER Pulse Laser, Large	1–4	5–10	11-16
Improved Heavy Laser, Small	1	2	—
Improved Heavy Laser, Medium	1–2	3–4	5–6
Improved Heavy Laser, Large	1–3	4–6	7–9
Re-engineered Laser, Small	1	2	—
Re-engineered Laser, Medium	1–2	3–4	5–6
Re-engineered Laser, Large	1–3	4–6	7–9
Variable-Speed Laser, Small	1	2	3
Variable-Speed Laser, Medium	1	2–3	4–6
Variable-Speed Laser, Large	1–2	3–5	6–9
X-Pulse Laser, Small	1	2	3
X-Pulse Laser, Medium	1–2	3–4	5–6
X-Pulse Laser, Large	1–3	4–6	7–9
Laser Anti-Missile System	—	—	—

* Minimum range 3.

URBAN COMBAT

Several published mapsets have buildings printed directly on the mapsheets. Players can also use counters to mark buildings—any type will do, but the building's type and level should be clearly marked, and the counter should fit appropriately within the hex or hexes it will occupy on the mapsheet. If any counters are to represent a single, continuous building, this must be noted clearly for all players.

Rules for rarer and more complicated structures (from railway stations all the way up to the legendary Castles Brian Star League megafortress) can be found in *Tactical Operations*.

BUILDING TYPES

BattleTech divides buildings into four types: light, medium, heavy, and hardened. Each building will also have two values: its level, and its Construction Factor. Type is a permanent attribute, while Construction Factor and level may fluctuate based on damage inflicted to the building.

Default Values: If a scenario does not specify a building's type, treat it as medium, Level 2.

CONSTRUCTION FACTOR

The Construction Factor (CF) determines how a building's physical structure affects play. This number applies to a hex as a whole; each level of a building hex does not have its own CF.

The CF is the number of damage points a building hex can take before being reduced to rubble. This damage, regardless of when it occurs, is tracked across a game. The CF also represents the number of tons of additional weight each level of a building hex can support without collapsing.

The range of possible CF values for each building type appears on the Building Modifiers Table, page 67.

Current CF: The CF of a building is always defined at the instant an action takes place. For example, if two 'Mechs enter the same building hex at different times in the same Movement phase, the CF as far as both 'Mechs are concerned will be different, as the first 'Mech will have damaged the building hex.

Default Values: If the scenario does not specify a building's CF, assume that a light building hex has CF 15, a medium building hex has CF 40, a heavy building hex has CF 90, and a hardened building hex has CF 120.

Multiple-Hex Buildings: For buildings that cover more than one hex, each hex has its own CF value. The destruction of a single hex in a multi-hex building does not affect any other hex within the same structure, unless more than half the total hexes have been destroyed. For more information, see *Collapse* (see p. 73).

BUILDING LEVELS

Treat building levels exactly like other terrain levels for line of sight and movement, with each level of a building measuring roughly six meters high. These levels do not represent a specific number of floors, but rather are an abstraction of the building's interior.

This means that even though a 'Mech stands two levels tall, when inside a building hex it only occupies a single level at a time. However, a 'Mech is still is considered to rise two levels above the underlying level it occupies in a building hex for purposes of LOS to any hex that is not a non-adjacent building hex. For more information, see *Changing Levels in Buildings*, page 67.

Building levels affect movement in the same way as all other terrain levels. In other words, a 'Mech can move to the roof of a building hex, and while staying on roofs change levels as though each building were a hill (provided the 'Mech does not change more than its maximum allowed level changes in a single hex and the CF of each hex can support the 'Mech).

STRATEGIC

SIMPLIFIED BUILDINGS

Urban combat can be fun, but it also introduces additional Piloting Skill Rolls and the need to track damage to buildings. For those in search of simpler, quicker games, a common approach is to treat all buildings as hills of an equivalent level that can be neither entered nor destroyed.

BASEMENTS

A building's description—or the scenario—states whether or not it has a basement. Otherwise, players determine if a building has a basement—and the effect of a 'Mech falling into it—by rolling 2D6 and consulting the Basements Table below whenever a 'Mech enters a building hex at Level 0 for the first time in a scenario. Only one basement roll is made for each building hex per scenario.

A 'Mech automatically falls through the floor into a basement if the combined tonnage of all 'Mechs located on Level 0 is greater than the building hex's CF at the start of the current Movement Phase. Use the Facing After Fall table (see p. 57) to determine the 'Mech's resulting facing and which facing to apply the fall damage to. A collapsed basement creates a sublevel below the ground floor of the building hex, with a depth equal to the number of basement levels (1 or 2).

A collapsed basement will not automatically collapse the building hex but the building hex will take damage equal to the tonnage of the falling 'Mechs divided by 10 (round fractions up). Double the damage for a two-level basement.

BASEMENTS TABLE

Dice Roll	Effect
2	Double basement. The 'Mech falls 2 levels.
3-4	Basement. The 'Mech falls 1 level.
5-8	No basement.
9	Small basement. No effect on 'Mechs.
10-11	Basement. The 'Mech falls 1 level.
12	Double basement. The 'Mech falls 2 levels.

MOVEMENT EFFECTS

'Mechs can move into, onto, or through buildings. The rules in this section cover entering building hexes below the level of the roof; i.e. movement actually inside the building in a hex, as opposed to entering a hex on the roof of the building. The Building Modifiers Table below summarizes movement costs and modifiers for each type of building.

BUILDING MODIFIERS TABLE

Building Type	Original CF	MP Cost Per Hex	Piloting Skill Modifier
Light	1–15	+1	0
Medium	16–40	+2	+1
Heavy	41–90	+3	+2
Hardened	91–150	+4	+5
Cost to Enter Any Hex		*1*	

BUILDING MOVEMENT MODIFIERS TABLE

Hexes Moved In Turn	Piloting Skill Modifier	Hexes Moved In Turn	Piloting Skill Modifier
1–2	0	10–17	+4
3–4	+1	18–24	+5
5–6	+2	25+	+6
7–9	+3		

MOVING INTO BUILDINGS

'Mechs can enter a building hex at ground level (Level 0) from an adjacent hex. 'Mechs that involuntarily enter a building hex (such as during a skid or after being displaced by another 'Mech's actions) should use *Skidding* and *Displacement* rules to resolve such movement (see pp. 68 and 55, respectively).

A 'Mech may enter a building hex at a level higher than ground level only if entering from an adjacent hex with a level equivalent to the building level being entered; i.e. a 'Mech may enter a building, but only at a level equal to that of the last hex the 'Mech entered.

When a 'Mech voluntarily enters a building hex (not including moving onto the roof), its controller must make a Piloting Skill Roll (see p. 53). Modify the roll using the table above, based both upon the building type (on the Building Modifiers Table), as well as the number of hexes moved at the time of the PSR (on the Building Movement Modifiers Table). If the roll fails, the 'Mech takes damage equal to the building hex's current CF divided by 10 (round up). This damage hits from the direction the 'Mech moved into the hex (e.g. a quad 'Mech shifting left into a building takes damage to its left side). A failed roll does not cause a 'Mech to fall.

In addition, the hex suffers damage equal to the 'Mech's tonnage divided by 10 (rounded up), regardless of the Piloting Skill Roll result.

Collapse: If the total tonnage of 'Mechs on any single level of a building hex exceeds the hex's current CF (except Level 0, the ground floor; see *Basements*, p. 66), the entire building hex immediately collapses. See *Collapse*, on page 73.

Falling: If a 'Mech falls inside a building hex, it inflicts the same damage on the building hex as though the 'Mech entered the building hex.

Jumping: A 'Mech cannot use Jumping MP to enter a building hex, though it can enter the hex by jumping onto a building roof). However, it can use Jumping MP to leave a building hex, provided it does not enter another building hex other than by its roof at any point in the rest of the current Movement Phase.

Stacking: Normal stacking limits are in effect at each level in a building, in each hex.

CHANGING LEVELS IN BUILDINGS

Once inside a building, a 'Mech may not change levels, except as noted under *Basements*, page 66.

SKIDDING

If a 'Mech using running movement makes a facing change in a paved hex at any point in the turn, and then attempts to enter a new hex in the same turn, before that 'Mech actually enters the hex the player must make a Piloting Skill Roll (see p. 53) to see if the 'Mech skids. The roll is modified based on the total number of hexes moved in the turn so far, using the Skid Modifiers Table (see below). If it passes, the 'Mech does not skid and may enter the hex and continue its movement; multiple rolls could occur in a turn, based upon the 'Mech's movements. If it fails, the 'Mech falls (see *Falling*, p. 56); it suffers normal falling damage and then skids.

The 'Mech skids for a number of hexes equal to the number of hexes it has moved in the turn so far (not MP spent, so facing changes are ignored), divided by 2 (round up), continuing in the direction it was travelling before making the facing change that caused it to skid.

If a 'Mech skids off the playing area, it is considered destroyed for the remainder of the scenario. Otherwise, for every hex that it skids, it suffers additional damage equal to one-half its normal falling damage, rounded up. After the skid has ended, add up the damage from both the fall and the skid, then apply it in 5-point Damage Value groupings. Use the column of the Hit Location Table determined by the fall to determine the location(s) for this damage.

After a skid, the 'Mech's movement ends, even if it had MP remaining.

Combat Effects: Add a +2 Target Number modifier for all weapons fire and physical attacks made against a 'Mech during a turn in which it skid. In addition, apply a +1 Target Number modifier for all weapons fire and physical attacks made by a 'Mech during a turn in which it skids.

SKID MODIFIERS TABLE

Hexes Moved	Piloting Skill Modifier
0-2	–1
3-4	0
5-7	+1
8-10	+2
11-17	+4
18-24	+5
25+	+6

SKIDDING DIAGRAM 1: INITIAL MOVEMENT

In Skidding Diagram 1 on page 69, a player wants their Phoenix Hawk *PHX-S3 in Hex A to run to Hex H. It has a Piloting Skill of 5. As part of its move, the 'Mech runs to Hex C and makes a facing change toward Hex D. No Piloting Skill Roll is required.*

However, when the Phoenix Hawk *attempts to enter Hex D, the player must make a PSR before entering the hex, because the 'Mech will be running as it moves into a new hex after making a facing change on pavement.*

So far, the Phoenix Hawk *has moved 2 hexes, and so per the Skid Modifiers Table it applies a –1 modifier to its PSR. With a Piloting Skill of 5, the player needs to roll a 4 or higher to avoid skidding. The player rolls a 10, and the 'Mech continues to run toward Hex H.*

The Phoenix Hawk *makes another facing change in Hex E toward Hex F. In order to move safely from Hex E to Hex F while running on pavement, the player must make another PSR, this time modified by 0 because the 'Mech has moved 4 hexes. The Target Number is 5 (5 + 0).*

SKIDDING DIAGRAM 1: SKIDDING

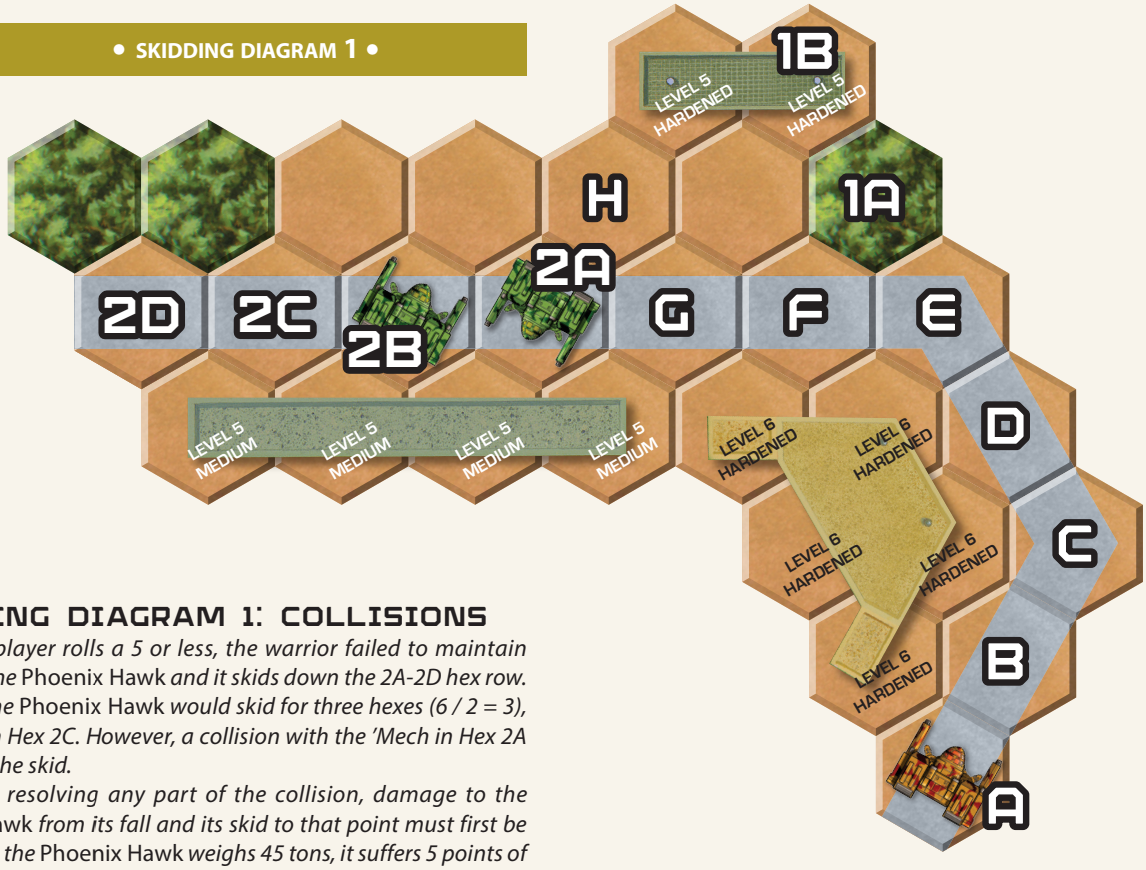
If the player fails the PSR (rolls a 4 or less), the Phoenix Hawk *skids down the 1A-1B hex row. Normally it would skid for two hexes (4 / 2 = 2), placing it in Hex 1B. However, the light woods in Hex 1A must be taken into account. The Movement Point Cost Per Hex for light woods is 1, so that is subtracted from the total amount of hexes to be skid, meaning the 'Mech only skids 1 hex into 1A.*

The 45-ton Phoenix Hawk *suffers 5 points of damage falling into hex E where it failed its Piloting Skill Roll (45 tons divided by 10 is 4.5, rounded up to 5) and 3 points of damage per hex it enters during the skid (half the falling damage of 4.5, rounded up) for a total of 8 (5 + 3 = 8); it only skid 1 hex and the woods don't deal additional damage. Once the skid is finished, the player rolls on the Facing After Fall Table (see p. 57) to determine the Hit Location Table column (see p. 33) where the falling/skid damage will be applied: one 5-point Damage Value grouping and one 3-point grouping.*

If the light woods had not been in Hex 1A, the Phoenix Hawk *would have skid into the building Hex of 1B, which would have required its controller to resolve the damage to both the 'Mech and the building hex as though the 'Mech had charged the building (see* Charge Damage, *p. 35).*

If the player instead passes the PSR (rolls a 5 or greater), then the Phoenix Hawk *continues to run towards Hex H. The 'Mech makes another facing change in Hex G towards Hex H. Once more, in order to move safely from Hex G to Hex H while running on pavement (even though the hex the 'Mech is moving into is not pavement), the player must make another Piloting Skill Roll, this time modified by +1 because the 'Mech moved 6 hexes. The Target Number is 6 (5 + 1).*

• SKIDDING DIAGRAM 1 •



SKIDDING DIAGRAM 1: COLLISIONS

If the player rolls a 5 or less, the warrior failed to maintain control of the Phoenix Hawk *and it skids down the 2A-2D hex row. Normally the* Phoenix Hawk *would skid for three hexes (6 / 2 = 3), placing it in Hex 2C. However, a collision with the 'Mech in Hex 2A might end the skid.*

Before resolving any part of the collision, damage to the Phoenix Hawk *from its fall and its skid to that point must first be resolved. As the* Phoenix Hawk *weighs 45 tons, it suffers 5 points of damage falling into Hex G, where it failed its Piloting Skill Roll (45 tons divided by 10 is 4.5, rounded up to 5) and 3 points of damage for skidding into Hex 2A (half the falling damage of 4.5, rounded up); the player rolls on the Facing After Fall Table (see p. 57) to determine the Hit Location Table column (see p. 33) the damage groupings are applied to. Assuming the skidding* Phoenix Hawk *survives, only then is the collision resolved.*

The 'Mech in Hex 2A has not yet moved this phase. The Target Number for the resulting unintentional charge attack is 11: 5 (base Target Number) + 2 (attacker ran) + 0 (no target movement modifier, as the target has not yet moved this phase) + 1 (skidding) + 3 (unintentional charge). The Phoenix Hawk*'s controller rolls an 11! But because the target 'Mech has not yet moved, it can still avoid the successful charge by making a Piloting Skill Roll (in this case, needing a result of 4 or better). The enemy 'Mech's controller, however, rolls a 3, which means it failed to dodge.*

As the falling and skidding damage happens first, this might result in the Phoenix Hawk *being destroyed before the collision actually occurs. If so, then the target 'Mech would still be able to move normally this turn. If not, the target 'Mech cannot move again later in the Movement Phase.*

The Phoenix Hawk*'s charge deals 27 points of damage: 4.5 (45 tons divided by 10) × 6 (the number of hexes the* Phoenix Hawk *entered during the turn, not counting skidding hexes). Its controller then rolls six hit locations: five 5-point Damage Value groupings and one 2-point grouping, all applied to the front side of the Kick Location Table. The* Phoenix Hawk *also takes damage from the successful charge, equal to 1 point of damage for every 10 tons that the target weighs (round fractions up), applied in 5-point Damage Value groupings on the Front/Rear column of the Hit Location Table.*

At the end of the successful charge, the Phoenix Hawk *ends its move in Hex 2A (even though it would normally have skid for two more hexes, its unintentional charge automatically ends its skid and its movement in general). The target 'Mech is moved into Hex 2B. The* Phoenix Hawk *is already prone, and so its controller need not make a Piloting Skill Roll to avoid a fall, but the target 'Mech must make the standard PSR to avoid a fall after impact; if it fails, the target 'Mech will fall into Hex 2B.*

Finally, the displacement of the original 'Mech in Hex 2A to Hex 2B automatically causes a domino effect to the 'Mech already in Hex 2B. If the 'Mech already in 2B had not yet moved this turn, it could attempt to get out of the way (see Domino Effect*, p. 55); if it had already moved, it will be moved to Hex 2C, after which the 'Mechs now in Hexes 2B and 2C each must make a PSR to avoid falling.*

If the Phoenix Hawk *falls and skids at any time in the turn, once all effects are resolved its movement would be over, regardless of if it still had MP left.*

INTERRUPTING A SKID

Accidental Falls: If the level of the hex to be entered is two or more lower than the level of the skidding 'Mech's current hex, the 'Mech automatically falls (see p. 56). If there is already a 'Mech in the hex it falls into, an accidental fall from above occurs (see p. 57). Regardless, the 'Mech's skid ends in that hex.

Collisions: Collisions may completely stop a skid, but these are dealt with separately (see p. 70).

Damage: Damage can be applied at various stages during a skid, and is resolved immediately when applied. If a skidding 'Mech is destroyed at any point in its skid, its skid ends immediately, with no further effects.

Terrain: If a skidding 'Mech moves into a terrain hex (not including buildings, level changes, or water), other than clear and/or paved hexes, then that terrain reduces the distance it skids. For each such hex entered, subtract the Movement Points required to enter that terrain type from the remaining hexes to be skid, as shown on the Movement Costs Table, page 17. The terrain applies no additional damage. If the 'Mech would enter a hex that would reduce its remaining hexes to move to 0 (or less), it still enters that hex, ending its movement there.

For example, if a 'Mech skidding through six hexes enters light woods for its third hex, it would subtract two from the hexes left to skid (2 MP for a light woods hex), leaving it two hexes left to skid. If the next hex it entered were a heavy woods hex, that would subtract three hexes (3 MP for a heavy woods hex), which it doesn't have left, but it would skid into that hex regardless, ending the skid in the heavy woods hex.

Additionally, if the level of the hex to be entered is one or more higher than the level of the skidding 'Mech's current hex, the skidding 'Mech automatically crashes into it and stops (see *Levels*, under *Collisions with Stationary Objects*, p. 71).

Water: 'Mechs automatically end their skid if they enter Depth 1 or greater water. This entry into water does not deal additional damage, though any location without armor that is submerged will suffer a hull breach as normal (see p. 65).

COLLISIONS WITH STATIONARY OBJECTS

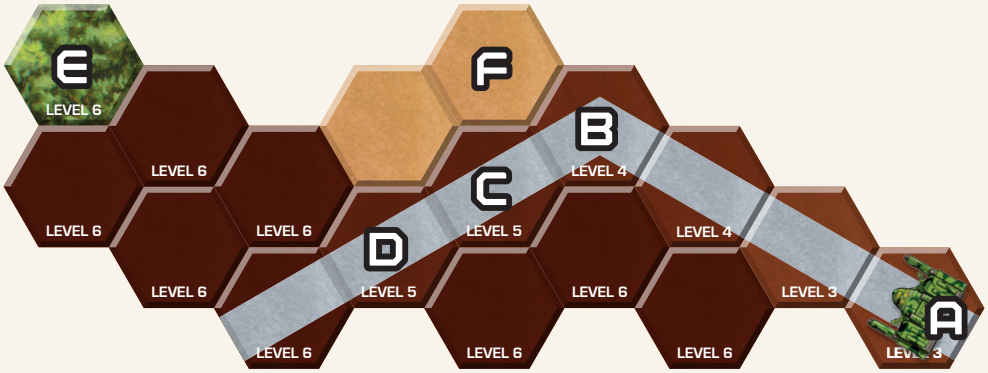
If an obstacle lies in the path of the skid, the skidding 'Mech may crash into it.

Falling damage (if any) as well as skidding damage resulting from the number of hexes travelled up until the crash must be applied and resolved before resolving any part of a collision. If a 'Mech continues to skid after a collision, that additional damage is applied after all damage from the collision is applied.

For example, if a 'Mech falls and skids for four hexes, but runs into a building hex in the second hex of its skid—which it destroys and so continues to skid—the damage from the fall and two hexes of skid would be applied first, then the damage from the collision would be applied, then the damage from the collapsing building would be applied, then the damage from the additional hexes skid (if any) would be applied.

Buildings: Skidding 'Mechs automatically crash into buildings if entering a building hex. The hex takes damage as if the skidding 'Mech had executed a successful charge attack (see *Charge Damage*, p. 35). The 'Mech takes damage equal to the building hex's current CF divided by 10 (round up). Check for a basement (see p. 66); if there is a basement, the fall occurs first, before a building collapse (if the building takes enough damage to collapse).

If the building hex is not destroyed (or if there was a basement), the 'Mech's skid ends, with the 'Mech occupying the building hex.



• SKIDDING DIAGRAM 2 •

SKIDDING DIAGRAM 2: SKIDDING

In Skidding Diagram 2, Player 1 wants his 55-ton Griffin *in Hex A to end its movement in Hex D. To spend the required 8 MP, this 'Mech must run (it has a Walking MP of 5 and a Running MP of 8). The* Griffin *runs to Hex B. When it attempts to enter Hex C, its controller must make a Piloting Skill Roll (due to the road) against a Target Number of 4 (4 for the MechWarrior's Piloting Skill, + 0 because the 'Mech has only moved 3 hexes at this point).*

If the roll is successful, the 'Mech can move to Hex D. There, the controlling player—thinking ahead to where he wants his 'Mech to be in the next turn—will spend the Griffin*'s remaining 1 MP to turn to Hexside 6, in preparation for moving to the light trees in Hex E.*

If the roll in Hex B fails, the Griffin *skids into Hex F. Hex B has a level of 4, while Hex F has a level of 0. This four-level drop means that the controlling player must consult the Falling rules (see p. 56) to determine damage and results. In this case, the 'Mech takes 36 points of damage (6 for the initial fall—there is no damage for the 1-hex skid as the 'Mech skids 'into air' when it enters Hex F—and 30 for the accidental fall from the level change). The player assigns the damage in 5-point Damage Value groupings, using the appropriate column of the table once the facing has been determined (see* Facing After a Fall*, p. 56).*

Had any other 'Mech been in Hex F when the Griffin *fell off the cliff, a collision might have occurred, which would have required the players to use the* Accidental Falls From Above *rule (see p. 57).*

If the building hex is destroyed and there was no basement, and the skidding 'Mech still has hexes left to skid, look at the MP Cost column on the Building Modifiers Table (see p. 67), and subtract that number of MPs for the type of building hex destroyed from the remaining hexes to be skid. After subtracting, if there are still hexes to be skid, the skid continues.

For example, if a 'Mech skid into a Medium Building hex, destroyed that building hex, and still had 4 more hexes to skid, the 'Mech's controller would subtract 2 MP (after looking at the MP cost column of the Building Hex Table), leaving the 'Mech to skid only 2 more hexes. In either case (i.e. if the building hex was not destroyed, or if the subtraction of the MP cost from the building type reduced the remaining hexes to be skid to 0), the skid ends, with the skidding 'Mech now occupying the building hex.

Levels: If the level of the hex to be entered is one or more higher than the level of the skidding 'Mech's current hex, the skidding 'Mech automatically crashes into it and stops. The 'Mech takes 1 point of damage for every 20 tons it weighs, round fractions up (use the Front/Rear column to apply the damage; the hit always comes from the front).

COLLISIONS WITH 'MECHS

As in the case of colliding with stationary objects, falling damage (if any) as well as skidding damage resulting from the number of hexes travelled up until the crash must be applied and resolved before resolving any part of a collision with a 'Mech.

A skidding 'Mech must make a successful charge attack (i.e. an unintentional charge) against any 'Mech in the path of its skid. Apply the +3 modifier for an unintentional charge; do not modify for differences in Piloting Skill between the attacker and target.

If the unintentional charge is successful, and the target does not dodge (see below), the skidding 'Mech applies damage as for a standard charge (see *Charge Damage*, p. 35). Use the distance the skidding 'Mech moved before its skid to calculate damage. Damage to the target 'Mech is rolled on the Kick Location Table (unless the target is prone, in which case use the appropriate column of the Hit Location Table; see p. 33). This is resolved immediately and, unlike a standard charge, can affect a 'Mech that has not yet moved.

After the collision is resolved, the skid continues if the target 'Mech was destroyed. Otherwise, the target 'Mech is displaced into the adjacent hex in the direction that the attacker skidded into it (see *Displacement*, p. 55), the attacker advances into the target's hex, and the skid ends. If the unintentional charge is unsuccessful, the skidding 'Mech did not strike the target 'Mech and continues its skid.

If a 'Mech continues to skid after a collision, then the resulting additional skid damage is applied after all collision damage.

Note that a skid is one of the few instances when a 'Mech can enter and exit a hex occupied by an enemy 'Mech in the same Movement Phase.

Dodging a Collision: A 'Mech that has not yet moved during the current Movement Phase can attempt to dodge a successful unintentional charge.

Before the skidding 'Mech enters the target's hex, the target 'Mech's controller must make a Piloting Skill Roll. Success means the target 'Mech may make its movement immediately (it may not move again later in the Movement Phase). Failure means the target remains in its hex (this failure does not cause a fall).

COMBAT EFFECTS

Combat in and around buildings may damage the buildings and the 'Mechs inside. Players may attack 'Mechs inside buildings, or the buildings themselves.

ATTACKING BUILDINGS

Building hexes are immobile targets, and attacks against them receive the usual –4 Target Number modifier for firing at such a target. However, weapon attacks targeted at a building hex from adjacent hexes always hit, as do all physical attacks (though players must still roll for weapon effects, such as jamming if firing an Ultra autocannon at double-rate, for example). Always use the full Damage Value for cluster weapons that strike an adjacent building hex; i.e. cluster type weapons do not use the Cluster Hits Table in this case.

When a building hex suffers damage, subtract the weapon's Damage Value from the building hex's current CF. When the cumulative damage equals or exceeds the building hex's CF, the hex becomes rubble for the rest of the game. If it is part of a multi-hex building, this may or may not result in the rest of the building hexes collapsing (see *Collapse*, p. 73).

ATTACKING 'MECHS INSIDE BUILDINGS

Players may attack 'Mechs inside a building hex. An attacker must have valid LOS to the building hex, as well as to the level within the building hex occupied by the target 'Mech. Building hexes block line of sight, but the building hex a 'Mech occupies is not considered when determining LOS (since it is not intervening terrain).

Buildings provide protection against attacks. From each hit on a 'Mech inside a building hex, the building reduces the damage by its current CF divided by 10 (round up; treat each Damage Value grouping as a separate hit). The building hex takes that amount of damage from the hit. Resolve damage to the building's CF at the end of the Weapon Attack Phase.

Shots fired at a 'Mech inside a building hex that miss do not damage the building (neither does any damage not applied to a 'Mech from a successful cluster attack). The exception is if the attacker is adjacent to the building, in which case all missed shots automatically strike the building.

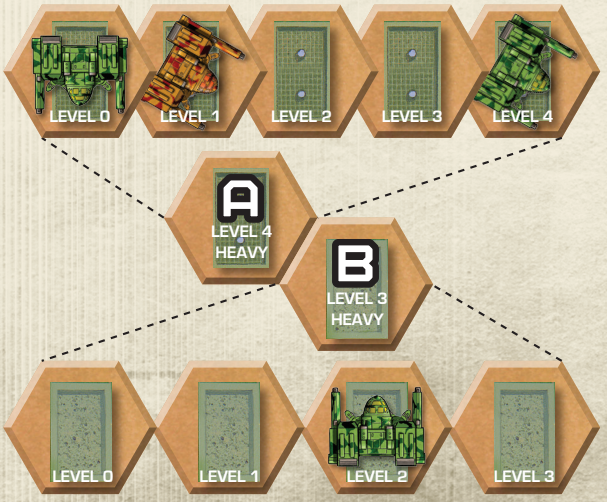
AE Damage: Area-effect attacks ignore the above damage reduction rules (see *Area-Effect*, p. 96).

LOS: Because a 'Mech only occupies a single level inside a building, for purposes of LOS within the same multi-hex building, a 'Mech only rises one level above the level of the underlying hex.

Physical Attacks: Physical attacks (other than charges) cannot be made against targets in a building hex, unless the attacker is in the same multi-hex building, on the same level, and is in a hex adjacent to the target (see *Combat within Buildings*, at right).

Several opponents make successful attacks against a Hunchback *inside a medium building hex, hitting it with an AC/10, a small laser, a large laser, and nine missiles from an LRM-15. The building hex has a current CF of 38. Each attack's damage is thus reduced by 4 (38 ÷10 = 3.8, rounded up to 4).*

As such, the AC/10 inflicts 6 points of damage on the Hunchback. *The small laser inflicts no damage, while the large laser inflicts 4 damage points. The LRM damage is divided into a 5-point grouping and a 4-point grouping. One point of the 5-point grouping reaches the* Hunchback, *while the 4-point grouping is entirely absorbed by the building (the six missiles from the LRM-15 that did not strike the target do not damage the building hex). The* Hunchback *takes a total of 11 points of damage, while the building hex's CF is reduced from 38 to 19 (38 – 4 – 3 – 4 – 4 – 4 = 19) at the end of the Weapon Attack Phase.*



• BUILDING COMBAT DIAGRAM •

COMBAT WITHIN BUILDINGS

'Mechs fighting in the same building (including 'Mechs occupying different hexes in a multi-hex building) must do so according to the following special rules. 'Mechs on a building's roof use the rules given above under *Attacking 'Mechs Inside Buildings*.

Unlike standard combat, 'Mechs in the same building hex can attack one another. When 'Mechs on different levels inside a building hex—or in different hexes (and/or levels) of a multi-hex building—fire at each other, use the standard Target Number procedures, with the following modifications:

- A 'Mech inside a target building hex being fired upon by a 'Mech inside the same building receives +1 Target Number modifier, and line of sight is blocked if more than two building hexes and/or levels intervene between the attacker and target hex.
- Do not add a level to a 'Mech's height when it is inside a building hex for line of sight purposes.
- If a shot from a different level than the level a 'Mech occupies hits that 'Mech, roll 1D6 and consult the appropriate section of the Special Hit Location Table. If the 'Mech is prone, use the Front/Rear column of the standard Hit Location Table (see p. 33).

In the Building Combat Diagram at left, Player 1 has a BattleMaster *(Gunnery 4) on the hunt and has run to enter Building Hex A at Level 0. Player 2 has three 'Mechs: a* Wolverine *that did not move this turn at Level 4 (the roof) in Hex A, a* Warhammer *that ran 5 hexes to Level 1 of Hex A from a neighboring building, and a* Locust *on Level 2 in Hex B. The building has a CF of 60 on every level.*

During the Weapon Attack Phase, Player 1 determines which 'Mech his BattleMaster *will attack. He sees that three building hex levels are between the* BattleMaster *(Level 0, Hex A) and the* Wolverine *(Level 4, Hex A). Three or more hexes and/or levels of intervening building between attacker and target means line of sight is not valid, and so Player 1 cannot attack the* Wolverine.

The Target Number to attack the Warhammer *is 13 (4 Gunnery, + 2 because the* BattleMaster *ran, + 2 for medium range using the* BattleMaster's *machine guns, + 2 for the target movement modifier, + 3 for the building hex between the* BattleMaster *and the target, the building hex the target occupies, and the difference in levels). Player 1 cannot make this attack, either.*

The Target Number to attack the Locust *is 8 (4 Gunnery, + 2 because the* BattleMaster *ran, + 2 for the building hex the target occupies and the difference in levels), making the* Locust *the only suitable target. However, even if the attack strikes the* Locust, *the 2 points of damage from the machine gun will not damage it. This is because the building has a CF of 60: as a building absorbs 10% of its CF from every attack directed against 'Mechs inside it, this means the* BattleMaster *would have to do at least 7 points of damage to hurt the target* Locust. *All the* BattleMaster *accomplishes is reducing the building's CF on Level 2 by 2 points (the damage of the machine gun it fired).*

COLLAPSE

A building hex will collapse if it takes total damage equal to or greater than its CF, or if the tonnage of a 'Mech occupying any one level of a building hex above the ground floor exceeds the current CF of that building hex; regardless of whether a building has a basement or not, this never includes Level 0 of a building hex (see *Basements*, p. 66).

Because CF is tracked per hex of a multi-hex building, the collapse of one hex will not affect any other hex in that building, unless it brings the total of collapsed hexes to more than half, in which case the entire building collapses.

When a building hex (or a multi-hex building) collapses because its maximum weight limit has been exceeded, or because of damage from 'Mech movement, it collapses immediately. If the collapse is caused by damage from attacks, the collapse occurs at the end of the phase in which the damage was inflicted.

When a building hex collapses, 'Mechs inside suffer damage equal to the hex's CF at the beginning of the current phase divided by 10, multiplied by the number of levels of building above the affected 'Mech (round up). 'Mechs on top of a collapsing building hex suffer damage as though they were on the highest level inside it.

Divide this damage into 5-point Damage Value groupings, with any remaining points assigned to a final grouping. Roll the hit location for each grouping. For 'Mechs on the roof of a building hex, use the Front column of the Hit Location Table; for 'Mechs inside a building hex, use the Front column of the Punch Hit Location Table.

Basements and Collapse: When a building hex collapses, the resulting rubble will fill in any basement the building might have had (i.e. do not roll for a basement). A building with a basement becomes a rubble hex equal to the level of the terrain underneath the building, not a sublevel rubble hex. If the collapse occurs as a 'Mech moves into the building hex at Level 0 for the first time in the scenario, its controller need not make a basement roll (see *Basements*, p. 66).

If a 'Mech occupies a basement when a building hex collapses, that 'Mech is destroyed.

Falling: 'Mechs occupying a building level higher than 0 (including the roof) suffer standard falling damage (see *Falling Damage to a 'Mech*, p. 57) in addition to the collapse damage.

DAMAGE AND DISPLACEMENT

If the 'Mech fails its Piloting Skill Roll for entering a hex, damage from moving into the hex is applied first. Then all damage from the collapsing building hex or hexes is resolved, for all 'Mechs involved, followed by falling damage (if any; see *Falling Damage To A 'Mech*, p. 57) and then displacement (accidental falls from above, domino effect and so on; see *Displacement*, p. 55). When determining displacement, the 'Mechs located in the lowest levels are dealt with first, then 'Mechs in higher levels.

If enough 'Mechs are occupying different levels of a multilevel building hex when it collapses, and those 'Mechs survive the collapse, some 'Mechs may be displaced multiple times. If a 'Mech cannot be displaced (for example, all the adjacent hexes are prohibited terrain), the 'Mech is destroyed.

COLLAPSE: MOVEMENT

In the Building Collapse Diagram on p. 74, Player 1 wants the following to happen: a Locust *to walk from Hex A to Level 2 of a building in Hex B and a* Stinger *to jump to Hex B. (Because a 'Mech cannot enter a building hex using Jumping MP, the* Stinger *must land on the roof, and so it will end up at Level 3). Player 1 lost the Initiative, and so Player 2 plans to move his* Archer *last, walking from Hex C through Hex D to Level 0 of Hex E.*

The building itself has taken significant damage. Each hex with an X represents a collapsed building hex that is now rubble, while hexes D and E each only have 7 CF remaining. Hex B has taken 1 point of damage, leaving it with a CF of 39.

As the Locust *enters Hex B, Player 1 must make a Piloting Skill Roll to avoid damage against a Target Number of 7: 5 (Piloting Skill) + 1 (four hexes moved, including the building hex the 'Mech is attempting to enter) + 1 (Medium Building). Whether the roll is successful or not, Hex B takes 2 points of damage (20 for the tonnage of the* Locust *divided by 10), leaving the building hex with a current CF of 37.*

After the Locust *moves, the* Stinger *jumps to the roof of the building in hex B. No Piloting Skill Roll is required to enter the hex, nor is the hex damaged.*

The combined weight of the Locust *(20 tons) and* Stinger *(20 tons) is 40 tons, more than the building's current CF of 37. However, because these 'Mechs are located on two different levels in the hex, their combined weight does not collapse the hex*

Player 2 can now make his planned move. His Archer *first walks from Hex C to Hex D, ending up at Level 0 inside the building in Hex D. As with the* Locust*, Player 2 must make a Piloting Skill Roll to avoid damage upon entering the building hex, against a Target Number of 6: 5 (Piloting Skill) + 1 (medium building). Regardless of the roll's success or failure, the building hex takes 7 points of damage (70 for the tonnage of the* Archer *divided by 10 = 7).*

COLLAPSE: HEX COLLAPSE

Hex D has a current CF of 7, and so the 7 points of damage caused by the Archer *collapses it. This collapse must be immediately resolved.*

Because the building collapses as the Archer *is entering the hex, no roll is needed to determine if the building hex has a basement. The collapse of Hex D does not exceed more than half the total hexes of the multi-hex building. The entire building spans eighteen hexes, of which Hex D is the ninth to collapse; the rest of the building hexes remain unaffected.*

Player 2 applies damage from the collapse after any damage received from entering the hex, if the Archer *failed its Piloting Skill Roll. At the beginning of the Movement Phase, Hex D's CF was 7; divided by 10, this gives a base damage of 0.7. The building had 3 levels above the* Archer*, and so the 'Mech takes 3 points of damage (base damage 0.7 x 3 = 2.1 (rounded up to 3). Player 2 assigns the 3 damage points using the Front/Back column of the Punch Hit Location Table.*

Having applied all appropriate damage, Player 2 can continue the Archer*'s movement into Hex E. As before, he must make a Piloting Skill Roll to avoid damage upon entering this building hex, against a Target Number of 6. If this PSR fails, damage is taken immediately. Whether the PSR succeeds or not, Hex E takes 7 points of damage (70 for the tonnage of the* Archer *divided by 10 = 7). Like Hex D, Hex E has a current CF of 7, and so the* Archer*'s entrance collapses it. The collapse occurs as the* Archer *entered the hex, meaning no basement roll is required.*

CONTINUED ON P. 74

COLLAPSE: BUILDING COLLAPSE

The collapse of hex E means that ten of the building's eighteen hexes have collapsed. Ten is more than half, and so the rest of the building hexes automatically collapse as well. These events must be resolved immediately.

First, the players apply damage inflicted by the collapsing building. In the case of the Archer, *at the beginning of the Movement Phase, Hex E had a CF of 7. Divided by 10, this gives a base damage of 0.7. The building had 3 levels above the* Archer, *and so the 'Mech takes 3 points of damage (base damage 0.7 x 3 = 2.1, rounded up to 3). Player 2 assigns the damage using the Front/Back column of the Punch Hit Location Table.*

Player 1's 'Mechs, all in Hex B, fare somewhat worse. At the beginning of the Movement Phase, Hex B had a CF of 37; divided by 10, which gives a base damage of 4 (3.7, rounded up). Luckily, the Stinger *is on the roof, meaning that no building levels are above it. It therefore takes 4 points of damage, assigned against the Front/Back column of the Hit Location Table. The* Locust *is at Level 2 in Hex B. With only 1 level above the 'Mech, it also takes 4 points of damage, applied against the Front/Back column of the Punch Hit Location Table.*

COLLAPSE: FALLING AND DISPLACEMENT

Next, the players resolve falling damage. The Locust *falls two levels and so takes 6 points of damage: 20 tons divided by 10, multiplied by the number of levels fallen +1 (2 levels +1 = 3). Player 1 rolls on the Facing After Fall Table (see p. 57) and gets a 1 (same direction, front). He assigns damage to the front of the* Locust *in one 5-point grouping and one 1-point grouping, using the Front/Back column of the Hit Location Table. The* Locust *ends its fall prone at Level 0 in Hex B (now a rubble hex).*

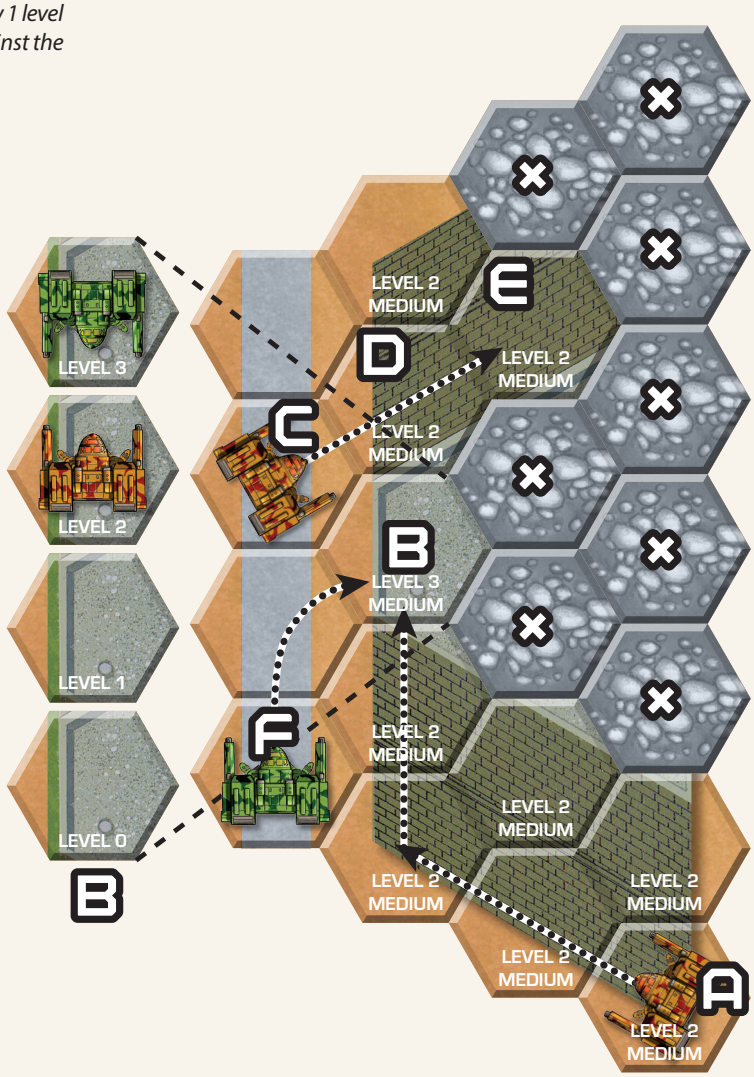
Player 1 next resolves the Stinger*'s fall. The* Stinger *was at Level 3, more than two levels higher than the Level 0 hex it's falling into. Also, the hex contains another 'Mech (the* Locust*), and so Player 1 must use the* Accidental Falls From Above *rule (see p. 57). The Target Number is 6 (7 for the base Target Number, +1 for the target movement modifier, – 2 (target is prone and adjacent)).*

If the roll result equals or exceeds 6, the Stinger *strikes the* Locust *and inflicts 6 points of damage (the weight of the falling 'Mech divided by 10, x 3 for levels fallen) on the* Locust*'s rear, using the Front/Back column of the Hit Location Table. Player 1 then randomly determines an adjacent hex into which the Locust is displaced. If the result is less than 6, the* Stinger *does not strike the* Locust*, but instead is displaced into a randomly determined hex adjacent to Hex B. (If a building were still standing in that hex, the* Stinger *would take additional damage, but since every adjacent building hex is rubble, the 'Mech is off the hook.)*

Regardless of whether or not the Stinger *struck the* Locust*, the* Stinger *takes the same 8 points of falling damage: 20 tons (weight of the* Stinger*) divided by 10, multiplied by the number of levels fallen, + 1 (3 levels + 1 = 4). Player 1 assigns the damage to the back of the* Stinger *(per the rules for damage after an Accidental Fall From Above, see p. 57) in one 5-point grouping and one 3-point grouping, using the Front/Back column of the Hit Location Table. The* Stinger *ends the fall prone at Level 0 with a new facing. Its exact hex placement depends on whether the* Stinger *struck the* Locust *or not.*

If the Locust *were struck and randomly displaced into a hex that contained another 'Mech—or if the* Stinger *missed and were randomly displaced into such a hex—and if the entrance of either 'Mech into that hex would violate the stacking limit, a domino effect would occur, requiring immediate resolution.*

Had the Stinger *instead been any 'Mech massing 40 or more tons, Hex B would have collapsed when the* Stinger *made its jump, as the weight of the heavier 'Mech would be greater than the building's current CF after the damage inflicted by the* Locust*. In this scenario, when the* Archer *moved into Hex D, that hex's collapse would have demolished the rest of the hexes in the multi-hex building before the* Archer *could continue its movement into Hex E, meaning that the* Archer *would have moved into a rubble hex.*



• BUILDING COLLAPSE DIAGRAM •

SPECIAL CASE RULES

The *Special Case Rules* section offers detailed rules to resolve specific but less common situations that players may want to play out as part of their game; these are all often depicted in *BattleTech* fiction, for example. Players can use these rules to simulate the effects of artillery, minefields, hidden units, and other situations.

All special case rules are optional: the use of any of these rules in a game must be agreed upon by all players before play begins.

BATTLEFIELD SUPPORT

Artillery, minefields, and aerospace fighters—and their effect on the battlefield—are pivotal elements of *BattleTech* fiction. The following rules bring these types of support elements into any game.

BEFORE PLAY BEGINS

Players pay for Battlefield Support using Battlefield Support Points. If a scenario does not provide details for Battlefield Support, then the players must determine the amount of Battlefield Support Points (BSPs) they will have access to before the game begins (note the Extraction Raid, Objective Raid, Diversionary Raid and Planetary Assault terminology is flavor only; players simply pick which values they wish to use in what ever scenario/game they're playing):

- **Extraction Raid Support:** 5 BSPs
- **Objective Raid Support:** 12 BSPs
- **Diversionary Raid Support:** 20 BSPs
- **Planetary Assault Support:** 35 BSPs

Players may need to adjudicate some use of Battlefield Support Points. For example, if the Planetary Assault Support option is used, but one player spends their full allotment of BSPs on Light Density Minefields, the result would be 70 minefields on the playing area—potentially rather annoying unless the other player agrees to that style of play. As with any rules, players should understand and agree on the potential extremes before play begins.

Once the players have determined the amount of Battlefield Support Points they will have access to, they should secretly select and write down the specific Battlefield Support Types they want to have available during the scenario, as noted on the Battlefield Support Table. Players do not need to spend their full allotment of BSPs; unspent BSPs are lost once play begins, and may not be used to purchase Battlefield Support Types during the game. (Some additional secret notes may need to be written down based upon the specific support chosen; see details below.)

For example, if two players decide to use Objective Raid Support (12 BSPs), Player A may simply want three Sniper Artillery attacks (4 BSPs each), while Player B opts for one Aerospace Light Strike (2 BSP), an Aerospace Strafing attack (5 BSPs), a Thumper Artillery strike (3 BSPs), and four Light Density Minefields (2 BSPs).

One-Time Use: Each instance of a Battlefield Support Type is usable once only, whether it inflicts damage or not (see *Minefield Support*, p. 79, for the exception).

Playing Area: These rules are designed for use on a four-map playing area (31 hexes x 35 hexes). If players are using larger areas, they may wish to increase the BSPs provided at each tier. For every two maps added, add 50% to the BSPs provided.

DURING GAME PLAY

Use the following rules for each Battlefield Support Type during game play.

Attack Declaration: With the exception of Minefields (see p. 79), use the following rules when declaring an attack:

- Support Types can be used during the Weapon Attack Phase of any turn of the game.
- If a player wishes to use one or more Support Types, they must declare their use during the Attack Declaration portion of the Weapon Attack Phase of the turn they will be used (see *Artillery Support*, p. 77, for the exception). The player reveals their selection and use of that Support Type. If they purchased multiple instances of that same Support Type, they do not need to reveal the full number of that Support Type that they purchased but are not using.
- The controlling player declares the target hex for the attack; in the case of Strafing attacks, the player must designate multiple hexes (see *Strafing*, p. 76).
- A player can make a Battlefield Support attack at any time during the Weapon Attack Phase. As many can be made in a single turn as are available.

Attack Direction: If any Battlefield Support attack is successful, roll 1D6: on a result of 1–4, all Damage Groupings in the attack hit the front; on a result of 5–6, they all hit the rear. There are exceptions to this rule, such as artillery, scattering, and minefields: see below.

Area-Effect Damage Type: Area-Effect Damage Type attacks (see p. 96) include the notation "[AE]" in their entry and on the Battlefield Support Table.

Damage Value Groupings: If an attack is successful, all Damage Value groupings are applied, but a separate hit location roll is made for each grouping. Each Damage Value grouping noted on the Battlefield Support Table consists of 5 damage. For example, the Heavy Bombing has five Damage Value groupings, so it would apply a total 25 points of damage, in five Damage Value groupings of 5 damage each.

Target Number Modifiers: No modifiers are applied to the Target Numbers shown on the Battlefield Support Table. Players simply roll 2D6, comparing the result against the Target Number for that Support Type, to determine whether the attack is successful. (See *Artillery Support*, p. 77, for the exception.)

Water: If a target is submerged in water, it cannot be the target of any Battlefield Support attacks. If a bombing or artillery attack scatters onto a target submerged in water, or attempts to damage such a target in any way, it is ignored.

In the case of a 'Mech standing in Depth 1 water, any damaged is applied using the Punch Hit Location Table (after rolling 1D6 to determine attack direction as normal).

OFFENSIVE AEROSPACE SUPPORT (STRIKES)

Light Strike Target Number: 4
Heavy Strike Target Number: 6

Successful Attack: If the attack is successful, make a separate roll on the appropriate Hit Location column for each Damage Value grouping.

Unsuccessful Attack: No effect.

OFFENSIVE AEROSPACE SUPPORT (BOMBING) [AE]

Light Bombing Target Number: 5
Heavy Bombing Target Number: 7

Successful Attack: If the attack is successful, make a separate roll on the appropriate Hit Location column for each Damage Value grouping.

If the hex targeted by a bombing is a building hex, and there is a 'Mech in that building hex, the full damage is applied simultaneously to both the building and the 'Mech.

Unsuccessful Attack: If the attack fails, it will scatter. Determine the Margin of Failure (MoF) between the modified Target Number and the die roll result. For each MoF point, the bombing attack will scatter one hex.

Next, roll 1D6 and compare it to the Scatter Diagram (see p. 77) to determine where the attack lands. If there is a 'Mech in that hex, even a friendly 'Mech, it is automatically hit; use the rules above for applying damage, but use a direction of attack as coming from the original targeted hex (i.e. do not roll the 1D6 to determine attack direction as for a normal attack).

OFFENSIVE AEROSPACE SUPPORT (STRAFING)

Strafing Target Number: 7

Upon the declaration of a strafing attack, a player must designate from one to five consecutive hexes, all in a straight line. When resolving the attack, the player makes a separate attack roll for every 'Mech in one of those five targeted hexes, against the Strafing Target Number of 7.

Successful Attack: If the attack is successful, make a separate roll on the appropriate Hit Location column for each Damage Value grouping. If more than one target was successfully struck, then the three Damage Value groupings of a Strafing attack hit each target; i.e. if the player successfully strikes four targets with a Strafing attack, all four targets would be hit by three Damage Value groupings, with the attacker resolving hit locations for each grouping. (Remember to first roll 1D6 to determine whether each attack strikes the front or rear of the 'Mech).

Unsuccessful Attack: If the attack fails in a hex, nothing occurs, but attacks in other hexes are unaffected.

DEFENSIVE AEROSPACE SUPPORT (LIGHT AIR COVER)

Light Strike Target Number: 3
Light Bombing Target Number: 4
Heavy Strike Target Number: 9
Strafing/Heavy Bombing Target Number: 11

This Battlefield Support Type is not an attack. Instead, it can potentially nullify an Offensive Aerospace Support attack.

After a player announces all Offensive Aerospace Support they wish to use in a given turn, an opponent may reveal their selection(s) of a Defensive Aerospace Support (Light Air Cover) to remove the attack(s). Before the attacker makes their roll, the defender rolls against a Target Number based upon the specific attack, as noted in this entry.

If a player reveals more than one Defensive Aerospace Support, they may choose to assign them all to a single attack, or if there are multiple attacks, they may split them up in any fashion. However, all such designations must be announced before any rolls are made.

Successful Roll: If the roll is successful, the opponent's Aerospace Support attack is completely nullified; no roll is made by the attacker, and their Aerospace Support selection is considered spent.

Unsuccessful Roll: If the roll fails, the attacking player resolves their attack as normal.

DEFENSIVE AEROSPACE SUPPORT (HEAVY AIR COVER)

Light Strike/Bombing Target Number: 9
Heavy Strike Target Number: 5
Strafing/Heavy Bombing Target Number: 6

This is not an attack. Instead, it can potentially nullify an Offensive Aerospace Support attack.

After a player announces all Offensive Aerospace Support they wish to use in a given turn, an opponent may reveal their selection(s) of a Defensive Aerospace Support (Heavy Air Cover) to remove the attack(s). Before the attacker makes their roll, the defender rolls against a Target Number based upon the specific attack, as noted directly above.

During the current turn, Chris reveals that he'll be attempting to make Light Bombing, Heavy Strike, and Strafing Aerospace Support attacks. With all of Chris' Aerospace Support attacks for this turn announced, Kevin reviews the battlefield. His 'Mechs are currently in bad condition and lined up perfectly for that strafing run; this could push him over the edge into defeat. He decides to reveal Defensive Aerospace Support: one Light Air Cover and one Heavy Air Cover.

Kevin knows he could assign both Support Types to try and take down the Strafing attack, but he's hurting enough that he needs to knock out two of the three attacks. He maximizes his chances against the Strafing attack by announcing he'll assign his Heavy Air Cover there, and then assigns his Light Air Cover to the Heavy Strike.

Kevin first rolls his Heavy Air Cover for the Strafing attack, needing a 6. He gets a 7! The Strafing attack is shot down with no further effects. Kevin's Target Number to take down the Heavy Strike with his Light Air Cover is 9; he rolls a 5, so the attack will still happen.

Now Chris rolls for the Heavy Strike, and gets a 7; this beats the Target Number by 1, so he'll be rolling for the four Damage Value groupings on the target. Ouch!

Finally, Chris only needs to roll a 5 to hit with his Light Bombing attack, but rolls a 2! The attack misses the intended target hex, because it's a bombing attack, it scatters (in this instance, three hexes: the Margin of Failure of the dice roll). Any target, friend or foe, in the hex it scatters to will automatically be attacked by the Light Bombing.

If a player reveals more than one Defensive Aerospace Support, they may choose to assign them all to a single attack, or if there are multiple attacks, they may split them up in any fashion. However, all such designations must be announced before any rolls are made.

Successful Roll: If the roll is successful, the opponent's Aerospace Support attack is completely nullified; no roll is made by the attacker and their Aerospace Support selection is considered spent.

Unsuccessful Roll: If the roll fails, the attacking player resolves their attack as normal.

ARTILLERY SUPPORT [AE]

Base Artillery Target Number: 8 (see below)

Pre-designated Hexes: Before beginning play, each side using Artillery Support secretly chooses five hexes on the playing area for each Artillery Support selection to serve as pre-plotted target hexes (these hexes cannot be shared between Artillery Support selections). Artillery Support on a pre-plotted hex automatically hits; i.e. no roll against a Target Number is made, the attack is simply announced and damage assigned (as noted below).

Note that this number of hexes is intended for a playing area composed of four maps. For every two additional maps used, add three additional pre-plotted target hexes per Artillery Support selection. However, regardless of the size of the playing area, no player can place more than five pre-plotted hexes per mapsheet (an area 17 hexes long by 15 hexes wide). These limits apply regardless of how much Artillery Support is in use by either side.

Targeting: When targeting a hex that has not been pre-designated, use the following rules.

During any turn's Weapon Attack Phase, the player must announce that an Artillery Support is incoming and secretly write down the target hex number. The artillery attack arrives during the Weapon Attack Phase of the *following* turn, at which time the player rolls to determine if the attack successfully strikes the targeted hex.

If a 'Mech chooses to spot the target hex for indirect fire (see p. 30) on both the turn the artillery attack was launched and the turn on which it arrives, apply a –2 Target Number modifier to the artillery attack.

The spotter can spot for any number of Artillery Support attacks (as well as indirect fire attacks) against a single hex, but can only spot to one hex a turn. If a spotter makes any attacks during the Weapon Attack Phase of a turn that it also spots, apply a +1 Target Number modifier to those attacks, as well as applying only a –1 (in place of the –2) modifier for targeting to the Artillery Support attack.

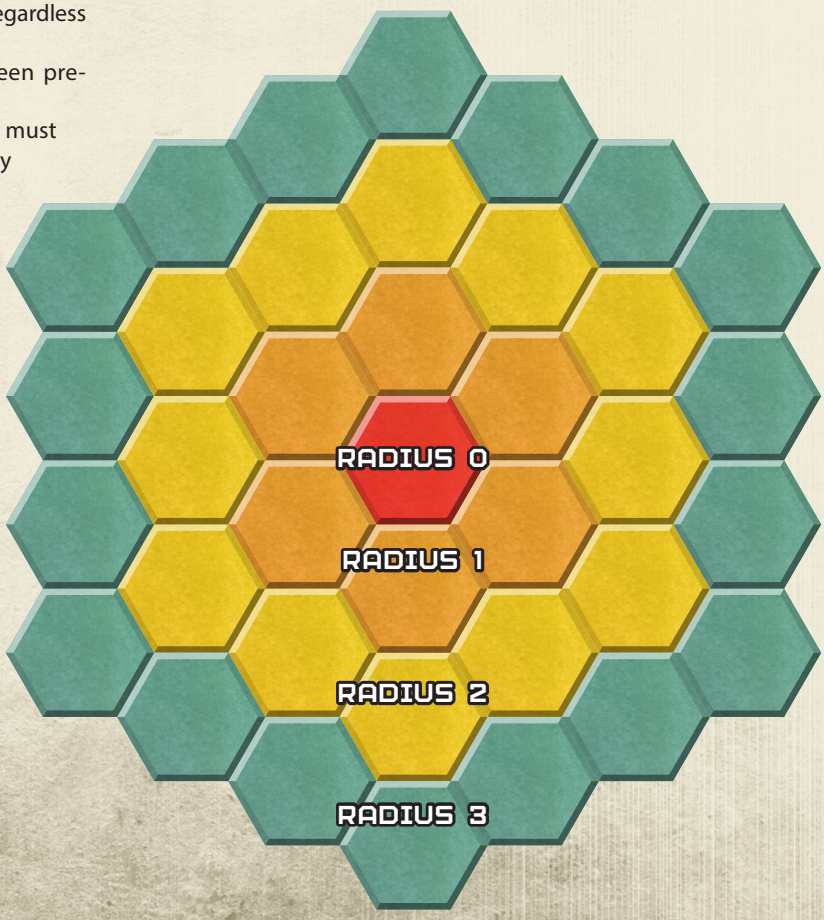
Successful Attack: If the attack is successful, the first number of Damage Value groupings in the Damage Value Grouping column on the Battlefield Support Table is applied to targets in the target hex. The second number of groupings is then applied to all targets in all adjacent hexes. If a third value is listed, it is applied to all targets in the adjacent hexes to those; see the Radius Diagram, at right.

In the case of the first target hex, make a separate roll on the appropriate column for each Damage Value grouping, after rolling the 1D6 to determine whether the attack will strike the front or rear of the 'Mech.

For the second (and third) radius of hexes, the direction of the attack for determining hit locations is based upon the central target hex; then roll for each Damage Value grouping.

If a building hex is damaged by artillery, and there are 'Mechs in the building, the full damage is applied simultaneously to both the building as well as the units.

• SCATTER DIAGRAM •



• RADIUS DIAGRAM •

Unsuccessful Attack: If the attack fails, it scatters. Determine the Margin of Failure (MoF) between the Target Number and the die roll result. The artillery attack will scatter one hex for each MoF point. Next, roll 1D6 and compare it to the Scatter Diagram (see p. 77) to determine where the shot lands. Any 'Mechs in any of those hexes, including friendly 'Mechs, as well as terrain and buildings are automatically hit. Use the rules above for applying damage, with the direction of attack for the new target hex coming from the original targeted hex (i.e. once again, do not roll the 1D6 for a normal attack).

Variant Artillery—Copperhead: Copperhead is an alternate Artillery Support attack, using the following rules:

- **BSPs:** The player designates whether each Artillery Support selection is a Thumper, Sniper, or Long Tom Copperhead Artillery Support attack. BSP costs are identical to the standard attacks.
- **Damage Value Groupings:** Copperhead Artillery munitions function as Arrow IV homing missiles (see p. 97), including their ability to home in on TAG-designated targets. The Damage Value Groupings for each type are as follows: Thumper: 1; Sniper: 2; Long Tom: 3.

BATTLEFIELD SUPPORT TABLE

Support Type	Target Number*	Damage Value Groupings**	Damage Type	Battlefield Support Point (BSP) Cost
Offensive Aerospace Support				
Light Strike	5	2	N/A	2
Light Bombing†	6	3	AE	3
Heavy Strike	6	4	N/A	3
Heavy Bombing†	7	6	AE	4
Strafing	7	3	N/A	5
Defensive Aerospace Support				
Light Air Cover		N/A	N/A	1
Light Strike	3			
Light Bombing	4			
Heavy Strike	9			
Strafing/Heavy Bombing	11			
Heavy Air Cover		N/A	N/A	2
Light Strike/Bombing	9			
Heavy Strike	5			
Strafing/Heavy Bombing	6			
Artillery Support†				
Thumper	8	3/1††	AE	3
Sniper	8	4/2††	AE	4
Long Tom	8	5/3/1††	AE	6
(Copperhead)	8	‡	N/A	‡
(Illumination/Smoke)	‡	‡	N/A	‡
Minefield Support				
Light Density	9	2	AE	0.5
Medium Density	8	4	AE	2
Heavy Density	7	6	AE	4

*No modifiers are applied to this Target Number, except for Artillery Support (see p. 77).
†Scatters if misses; see page 77.
‡See rules, page 79.

**All Damage Value groupings are five points of damage.
††Affects multiple hexes; see Artillery Support, page 77.

Variant Artillery—Illumination/Smoke: Illumination and Smoke are alternate Artillery Support attacks, using the following rules:

- **BSPs:** The player designates whether each Artillery Support selection is a Thumper, Sniper, or Long Tom Illumination or Smoke Artillery Support attack. The BSPs for Illumination and Smoke are half the standard cost (rounding down).
- **Illumination**: Instead of damage, Illumination Artillery Support negates any Light-based Target Number modifiers (see p. 62) against targets within their area of effect—i.e. the target hex (and all adjacent hexes, if appropriate)—for the rest of the game.
- **Smoke:** Instead of damage, a Smoke Artillery Support fills the target hex (and all adjacent hexes, if appropriate) with heavy smoke (see p. 61) that rises 2 levels above the underlying terrain. This smoke remains in play for the rest of the game.

MINEFIELD SUPPORT [AE]

Light Density Target Number: 9
Medium Density Target Number: 8
Heavy Density Target Number: 7

Unlike all other Battlefield Support Types, minefields are not an attack declared during the Weapon Attack Phase. Instead, at the start of the game, a player who has selected one or more Minefield Support option writes down the hex number, corresponding to the map, which contains each minefield selection. The player can designate any full hex anywhere on the playing area, except water hexes.

The maximum number of minefield Damage Value groupings that can be placed in a single hex by a single player is 6. However, both sides can have a minefield in the same hex. In other words, a player could only place a single Heavy Density minefield in a hex, but could instead place three Light Density fields, or a Light and a Medium Density field. In all those instances, two sets of each combination could be present in a given hex, one for each side of the game.

During each Movement Phase, a minefield's controlling player secretly tracks if any 'Mechs enter a hex with a minefield. When a 'Mech—either enemy or friendly—enters a minefield hex, any player controlling a minefield in that hex immediately announces the presence of any minefields there and rolls against the listed Target Number(s). In all instances, each minefield is resolved separately.

Skidding (see p. 68) or displacement (see p. 55) can also trigger a minefield; if a 'Mech enters a minefield hex along the ground for any reason, the minefield's controlling player must immediately announce its presence and make an attack roll. 'Mechs expending Jumping MPs only trigger a minefield if they end their movement in a minefield hex.

Successful Attack: If the attack succeeds, roll on the front column of the Kick Location Table for each Damage Value grouping.

If a minefield is triggered and inflicts damage against a target, reduce the minefield's total Damage Value groupings by 1; if a minefield's Damage Value groupings are reduced to 0, it has no further effect in play.

Unsuccessful Attack: If the attack fails, unlike other Battlefield Support Types, the minefield stays active. Players may agree to place a counter to designate that the hex contains a minefield; or, if both players agree, they can decide to not place counters in such instances to enhance a "fog-of-war" aesthetic.

Detecting Minefields: A 'Mech with an active probe (see p. 109) can potentially reveal minefields. At any point during a 'Mech's movement, if it mounts an active probe and the effective radius of the probe covers any hex containing an enemy minefield, the controlling player of that minefield must make a roll. On a result of 10+, any enemy minefields in that hex are revealed.

Clearing Minefields: A player may use an LRM-20; Rocket Launcher 20; MRM-20, -30 or -40; ATM 12 (HE or standard) or ATM 9 (HE), or Artillery Support, to try and clear a minefield. The player must designate the attack to clear the minefield. When the attack hits the hex, the player rolls 2D6. On a result of 5 or better, the strike reduces the Damage Value groupings of all minefields in the hex, enemy and friendly, to 0.

For Artillery Support, any time the target hex of an artillery attack (not any adjacent hexes) contains a minefield, even if the artillery was not designated to clear the minefield, the controlling player should roll 2D6. On a result of 10+, the minefield is cleared.

In all instances, minefields cleared in this fashion do not explode.

Dropping 'Mechs: If a minefield is present in a hex in which a dropping 'Mech lands (see below), treat the dropping 'Mech as though it entered the hex along the ground.

DROPPING 'MECHS (SIMPLIFIED)

BattleMechs, being exceptionally versatile and resilient combat units, are capable of being dropped directly onto the battlefield, using special disposable equipment to plummet from DropShips high up in the atmosphere or even in orbit. The sudden appearance of many tons of 'Mech directly on top of an enemy position and seemingly out of nowhere has turned the tide of many battles.

Players may choose to keep some or all of their force in reserve at the start of the battle, if the scenario permits this or if all players agree.

DROP TIMES

How long it takes for a dropped force to arrive on the battlefield must be determined before the game begins, either by instructions given in the scenario or by the agreement of all players. The time prior to arrival may be a fixed rate (e.g., "all dropped 'Mechs arrive on Turn 5"), variable (e.g., "all dropped 'Mechs arrive at 1D6 turns into the battle"), or some combination of the two (e.g., "Alpha Lance arrives on Turn 2, but Beta Lance does not arrive for 1D6-1 turns after this"). If the players cannot or do not wish to choose, use the default of "forces arrive on Turn 3."

ARRIVAL

At the start of a turn in which dropped 'Mechs arrive on the field, the controller of each arriving 'Mech must secretly nominate a hex anywhere on the playing area in which the 'Mech will land. This can be done by writing the information on a piece of paper and turning it face down on the table. If a 'Mech is prohibited from entering a specific hex type, that hex cannot be chosen as the target, with one notable exception: a player can intentionally try to violate the stacking rules (see *Stacking*, p. 18).

At the end of the Movement Phase, after all non-dropping troops have moved, a Piloting Skill Roll (see p. 53) is made for each dropping 'Mech in the order the player controlling the 'Mechs chooses. If more than one player is dropping 'Mechs this turn, stagger the order by their initiative, as in standard movement.

Before each roll, the player must reveal the nominated target hex for the landing (if both opponents have troops arriving in the same turn, alternate turns as per standard movement). A successful roll result indicates the 'Mech lands in the target hex at the end of the Movement Phase. If a 'Mech fails the roll, completely resolve that drop before moving on to the next 'Mech.

A dropping 'Mech may not move or make attacks in the turn that it landed, but may act normally on the following turn. Attacks made against dropping 'Mechs apply a +3 target movement modifier as well as an additional +2 Target Number modifier.

Flak: All Type F (flak) attacks apply a –2 Target Number modifier when made against dropping 'Mechs.

Minefields: If the 'Mech lands in a hex that contains a minefield (see p. 79), treat the dropping 'Mech as though it entered the hex along the ground.

Planetary Conditions: Any Piloting Skill Roll modifiers resulting from in-play Weather Conditions (see p. 62) are applied to the PSR above.

Stacking: Per the stacking rules (see p. 18), only one 'Mech can be in a single hex at the end of the Movement Phase. If a 'Mech violates the stacking rules when it lands use the *Displacement* rules to determine the effects (see p. 55); randomly determine the direction to displace any 'Mechs (if there are multiple 'Mechs, randomly determine the displacement direction for each one). This is not considered an accidental fall from above. If a 'Mech cannot be displaced (for example, all the adjacent hexes are prohibited terrain), the 'Mech is destroyed.

FAILED LANDINGS

A 'Mech that fails the Piloting Skill Roll for its drop will at the very least be damaged, and may even be destroyed.

Location: A 'Mech that fails its landing scatters 1D6 hexes for every Margin of Failure point. To determine the exact location, roll one die and compare it to the Scatter Diagram (see p. 77) to find the direction of the scatter. The dropping 'Mech will scatter in that direction a number of hexes as determined above.

If the 'Mech completely misses the playing area, it is considered destroyed for purposes of determining victory in the current scenario.

Damage: Damage for a failed landing is as though the 'Mech had fallen a number of levels equal to the roll's Margin of Failure (see *Falling*, p. 56). For example, if a 'Mech with a modified Piloting Skill target number of 6 or higher rolled a 3, the 'Mech would suffer damage as from a fall of 3 levels. A PSR for landing that fails by more than 7 means the 'Mech is automatically destroyed.

Stacking: Per the stacking rules (see p. 18), only one 'Mech can be in a single hex at the end of the Movement Phase. If a 'Mech violates the stacking rules when it scatters and enters a hex after a failed landing roll, use the *Displacement* rules to determine the effects (see p. 55); in this case, use the direction of the original target hex to determine the direction of movement for any displacement that might occur. This is automatically treated as an accidental fall from above (see p. 57).

EJECTION (SIMPLIFIED)

During the Movement Phase, if a MechWarrior is conscious then they can choose eject rather than take any other action that phase. An ejecting MechWarrior lands in the hex immediately behind their now-abandoned 'Mech. However, ejecting from a 'Mech can be dangerous. The pilot must make a Piloting Skill Roll to avoid taking damage, modified for the circumstances listed on the Ejection Modifiers Table. A pilot who fails this PSR takes damage equal to the roll's Margin of Failure divided by 2 (rounded down).

All equipment on an abandoned 'Mech continues to function, and the 'Mech still counts as occupying the hex it is in.

Auto-Ejection: If an ammunition explosion occurs a MechWarrior will automatically eject, even if unconscious, unless the auto-eject system is disabled. This occurs before damage to the 'Mech is resolved (though the pilot still takes the usual 2 points of damage due to ammo explosion feedback).

Players must note on a 'Mech's record sheet before each battle whether or not its auto-eject system is disabled; it is on by default, and can be turned on and off in the End Phase (see p. 12).

Full-Head Ejection System: This type of ejection follows its own set of rules (see p. 115).

Torso-Mounted Cockpit: It is impossible to eject from a torso-mounted cockpit.

Water: Ejection cannot occur if the cockpit is submerged (unless it has a full-head ejection system).

Skin-of-the-Teeth Ejection (Optional): If players want more survivable pilots, use this additional option.

If a 'Mech has its auto-ejection system engaged, does not have a Full-Head Ejection System, and has its head destroyed, the auto-eject system activates. The MechWarrior automatically receives enough damage to bring them up to 5 points of damage. For example, an undamaged pilot and a pilot with 3 points of damage would both fill out their condition monitors to 5 points of damage. The pilot may still take damage during the ejection itself. These rules do not apply in the event of a critical hit to a cockpit slot (which outright kills the pilot).

EJECTION MODIFIERS TABLE

Landing Terrain	Modifier
Clear	–2
Water	–1
Deep Snow	–2
Rough	0
Rubble	0
Light Jungle/Woods	+2
Heavy Jungle/Woods	+3
Per Level of Building	+1

Planetary Conditions	Modifier
Heavy Snowfall/Strong Gale/ Torrential Downpour	+2
Storm	+3

Situation	Modifier
BattleMech Prone	+5
Pilot Unconscious	+3
Per Point of Head Internal Structure Damage	+1
Automatic Ejection	+1

FORCED WITHDRAWAL

Most forces will not fight to the last man. Instead, once they have taken appreciable amounts of damage, they will begin to retreat. The forced withdrawal rules help simulate this situation.

Under forced withdrawal, 'Mechs must retreat from the battlefield when rendered useless or in imminent danger of destruction (see *Crippling Damage*, below). A 'Mech making a forced withdrawal must always move toward its home map edge. However, the 'Mech need not spend Running MP, and may retreat moving backward. If equipped with MASC, a supercharger, or some other system that increases speed at the risk of damage, a 'Mech need not engage that system when withdrawing.

Withdrawing 'Mechs may still attack an enemy 'Mech that closes within range of a weapon or physical attack.

CRIPPLING DAMAGE

Any 'Mech that suffers crippling damage must withdraw from the map. Crippling damage is defined as one or more of the following:

- Four or more points of damage to the MechWarrior
- The destruction of all sensor critical slots
- One gyro and one engine critical hit
- Two engine critical hits
- A side torso location is destroyed
- Internal structure damage in either three or more limbs or two or more torso locations (torso internal structure damage does not count towards crippling damage if that location still has front armor)
- The loss of all weapons. This is triggered if a 'Mech loses all weapons (either through damage or ammunition depletion) with a range greater than five hexes and if it can no longer cause more than 5 points of combined weapons damage. This does not apply if the 'Mech did not start with the ability to do 5 or more damage, or the ability to do damage at a range greater than five hexes; in this case the 'Mech can never trigger this condition.

If using these rules, when all of a 'Mech's weapons are destroyed and it can no longer move, the 'Mech is considered destroyed. This is in addition to the regular rules for determining destroyed 'Mechs, as found on page 49.

BROKEN MORALE (SIMPLIFIED—OPTIONAL)

Under this option, 'Mechs forced to withdraw apply a +3 Target Number modifier to all weapon and physical attacks, to reflect how badly shaken morale affects a MechWarrior.

HIDDEN 'MECHS

Players may hide 'Mechs on the map before play begins. Any player doing so writes down the number of each hex in which they hide a 'Mech. They must also designate its facing and if it is prone. A 'Mech remains hidden until it is revealed (placed on the map).

Hidden 'Mechs are not counted when making movement or fire selections. However, if a player plans to move a hidden 'Mech, they must reveal it at the start of the Movement Phase. If a player plans to attack with a hidden 'Mech (not including a point-blank shot; see below), they must reveal it at the start of the Weapon Attack Phase.

If a 'Mech attempts to enter a hex containing a hidden enemy 'Mech, it stops next to that hex instead (unless jumping; see below). However, if it is skidding, using the *Dropping 'Mechs* rule, or is being displaced into that hex, those rules take priority and the 'Mech does not stop. Either way, the hidden 'Mech is revealed. Additionally, a 'Mech that ends its move next to a hex containing a hidden 'Mech reveals that 'Mech. Hidden 'Mechs revealed in these ways cannot move that phase.

Hidden 'Mechs may not attack, but may spot for indirect fire and/or act as part of a C3 network.

Active Probes: At the end of the Movement Phase, any hidden 'Mech within range of an enemy 'Mech's active probe and with line of sight to that enemy 'Mech is revealed.

Area-Effect Attacks: Area-effect attacks automatically reveal any hidden 'Mech in the blast area, and damage them as normal. 'Mechs revealed by this act as normal in subsequent phases.

Buildings: If hiding a 'Mech in a building, its controller must note the level it is hidden on (this must be a level the 'Mech could normally access). A 'Mech that moves into or ends its move adjacent to a building hex reveals every hidden enemy 'Mech in that building, regardless of the level a hidden 'Mech is on.

Forbidden Hexes: A 'Mech can only be hidden in a hex/level it can legally enter and could normally access if not hidden. No 'Mech may hide in a clear, paved, or road/bridge hex. 'Mechs may only be hidden in water hexes if fully submerged.

Jumping: Jumping over hexes does not reveal 'Mechs hidden in them. If jumping into a hex would reveal a 'Mech hidden there, the jumping 'Mech still lands in that hex, causing a domino effect (see p. 55).

Minefields: If a 'Mech is hidden in a hex with minefields, the minefields attack if the 'Mech tries to walk or run out of the hex.

POINT-BLANK SHOTS

A hidden 'Mech revealed by enemy movement may immediately make a special point-blank weapon attack against the 'Mech that revealed it. It may first torso twist, and uses a Range of 1. Ignore Target Number modifiers for movement or terrain. Any damage dealt and PSRs required take effect immediately. If the target 'Mech is still capable of moving, has MP remaining, and isn't jumping, it may continue its move after the attack.

A 'Mech making a point-blank shot cannot perform any other action for the remainder of that turn.

Unavoidable Targets: If an enemy 'Mech skids, jumps, or is displaced into a hidden 'Mech, or drops onto one, any point-blank shot made occurs before any collision or displacement.

DESIGN QUIRKS

BattleTech fiction is filled with descriptions of designs whose unique quirks affect their abilities—the *Javelin* and its poor center of gravity that makes it prone to falls, the *Cyclops* and its advanced battle computer, and so on. There are also illustrations that fall far outside the norm, such as the *Stalker*, which plainly doesn't have arms, or the *Jenner*, with no torso that can be twisted, and so on.

Design quirks are a set of optional rules that allow players to bring this individuality to the tabletop. This section provides a series of positive and negative quirks, each with a numerical value that determines its relative strength or weakness.

It is strongly recommended that if a player modifies an existing 'Mech by assigning it a positive quirk, they should give it negative quirks of equal or greater value as well.

Strategic Operations: Quirks originally appeared in *Strategic Operations*. As such, some contain references to rules and unit and equipment types that do not appear in this book. These references have been left in to maintain compatibility with the wider *BattleTech* ruleset.

POSITIVE DESIGN QUIRKS

The following positive design quirks each enhance how the design performs during a game.

ACCURATE WEAPON (VARIES)

A weapon is more accurate than normal: all Target Numbers for that weapon receive a –1 modifier. The cost is 1 point per 5 points (or fraction thereof) of maximum damage the weapon can inflict in a single Damage Value grouping. If the "weapon" deals 0 damage (such as TAG), the cost is 2 points. More than one weapon can receive this quirk, but the cost for each must be paid.

ANTI-AIRCRAFT TARGETING (VARIES)

Some 'Mechs, like the *Rifleman*, have an advanced targeting system that can accurately target airborne units. This includes 'Mechs performing a combat drop (see p. 79), but not jumping 'Mechs. All attacks against such units while airborne (not grounded) receive a –2 Target Number modifier.

The cost is 1 point per 7 points (or fraction thereof) of maximum damage that all the weapons mounted on the 'Mech can inflict (excluding physical attack weapons). This bonus is only available when the 'Mech itself is on the ground.

BARREL FIST (1 POINT)

The cost for this quirk must be paid for each arm it applies to, and it can only be applied to arms with a lower arm actuator but no hand actuator. An arm with this quirk does not apply the +1 Target Number modifier for punching if it lacks a hand actuator.

BATTLE COMPUTER (5 POINTS)

The 'Mech is an advanced command unit equipped with a powerful tactical battle computer that allows for more effective command of a battle force; the *Cyclops* is a prime example. Each turn one or more such 'Mechs are on the battlefield with a conscious MechWarrior, their force receives a +2 modifier to all Initiative rolls.

This modifier is not cumulative with that of a Command BattleMech.

BATTLEFISTS (2 POINTS)

The Battlefists quirk applies only to 'Mechs that are equipped with hand actuators. This quirk reflects 'Mechs that feature hands which are better designed for melee combat as a consequence of their unique configuration (such as the *Awesome*'s mace-like fist, or the *Pillager*'s sharpened "knuckles"). This quirk is only paid for once, even if the 'Mech has two fists. If the 'Mech has two hands, and this quirk is only meant to apply to one of those hands, this must be specified (the cost remains the same).

A 'Mech with Battlefists receives a –1 Target Number modifier when making Punch attacks.

COMBAT COMPUTER (3 POINTS)

The 'Mech possesses an advanced combat computer, such as those installed in the *Stalker* and *Juliano*. The computer aids the MechWarrior in managing heat levels; each turn the 'Mech will generate four points of heat less than normal (but never less than zero).

COMMAND 'MECH (2 POINTS)

Some BattleMechs, such as the *Atlas*, *BattleMaster*, *Black Knight*, *King Crab*, *Marauder*, *Mongoose*, and *Wolverine* are designed as command 'Mechs. Each turn one or more such 'Mechs are on the battlefield with a conscious MechWarrior, their force receives a +1 modifier to all Initiative rolls.

This modifier is not cumulative with a Battle Computer.

COMPACT 'MECH (1 POINT)

This Quirk describes a 'Mech that is particularly slim in stature, such as the *Jackalope*. It enables the 'Mech to share a BattleMech cubicle with another Compact 'Mech. It also allows a 'Mech recovery vehicle to transport two Compact 'Mechs. In both cases, the combined tonnage of the two 'Mechs cannot exceed relevant tonnage limits.

The Compact 'Mech quirk only provides this bonus for transportation purposes; Compact 'Mechs cannot share the same space at the same time when undergoing maintenance or repairs.

This quirk can only be applied to 'Mechs that also possess the Narrow/Low Profile quirk, and is further limited to 'Mechs of medium weight (55 tons) or less.

COWL (4 POINTS)

BattleMechs such as the *Cyclops* have been outfitted with a protective cowl that provides an additional 3 points of head armor against all attacks except those that originate along the row of hexes directly in front of the cowled 'Mech.

DIRECTIONAL TORSO MOUNT (2 OR 3 POINTS)

A well-known feature of the original *Goliath*, a Directional Torso Mount acts as a somewhat more restrictive BattleMech shoulder turret, allowing any weapons in the mount to shoot in either the front arc or the rear arc, depending on the mount's current facing. The mount's facing is set at the start of the game, and can be changed at the same time torso twists are made. However, unlike a torso twist, it does not reset at each End Phase: the arc chosen remains until deliberately changed. The mount rotates with any torso twist as normal.

Each time a location with a Directional Torso Mount takes a hit (Front or Rear), the player must roll 2D6. A result of 9+ means the mount is destroyed and its weapon locked in its current arc, in addition to the normal effects of the attack.

The 3-point version of this quirk is available only to quad 'Mechs. In this case, the mount operates as a full turret, capable of rotating a full 360 degrees.

No weapon with location placement restrictions (such as a heavy Gauss rifle) can be placed in a Directional Torso Mount.

DISTRACTING (1 POINT)

A 'Mech with the Distracting quirk is physically designed to intimidate (or confuse) its opponent with its appearance. This includes the fearsome visage of the *Atlas* BattleMech, but can also include 'Mechs cosmetically designed to appear more heavily armed or deadly than they truly are, such as the *Arbiter*.

A 'Mech with the Distracting quirk applies a +1 Special Source modifier to any Morale Checks its opponents must make when using the Tactical Morale rules (see pp. 211-213, *TO*). If using the Demoralizer Special Piloting Ability from *Campaign Operations* (see p. 74, *CO*), the Distracting quirk adds a +1 modifier to the demoralizer's WIL score.

This quirk may apply to a 'Mech in some periods but not others: for example, the *Mackie* would almost certainly be Distracting upon its debut, but would lose the quirk once the novelty wore off and newer designs were introduced.

EASY TO MAINTAIN (1 POINT)

Some 'Mechs, such as the *Thorn*, are easier to maintain and repair. All maintenance, repair, and replacement rolls made for a 'Mech with this quirk receive a –1 Target Number modifier.

This is an innate quality to the 'Mech, regardless of whether enough spare parts are available to actually fix it. As such, the *Vindicator* doesn't gain this quirk just because its spare parts are plentiful (and the *Assassin* has it despite the fact that its custom spare parts are rare).

EASY TO PILOT (2 POINTS)

Training 'Mechs such as the *Chameleon* and *Crockett* are designed to be easier for a rookie MechWarrior or pilot to operate.

A MechWarrior with a Piloting Skill higher than 3 will receive a –1 Target Number modifier for Piloting Skill Rolls required as a result of damage or terrain. More skilled MechWarriors receive no benefit.

EXTENDED TORSO TWIST (3 POINTS)

Unlike most 'Mechs, one with this quirk can twist its torso much further. When torso twisting, the 'Mech can change its facing by one or two hexsides. Quad 'Mechs normally cannot torso twist at all. However, a quad 'Mech with this quirk can perform a normal (not extended) torso twist.

FAST RELOAD (1 POINT)

BattleMechs such as the *Hatchetman* and *Enforcer* have weapons that use large removable ammunition magazines, allowing them to reload much faster than normal. This quirk can be assigned to individual weapons, locations on a 'Mech (such as the right torso), or the entire 'Mech. Affected weapons can reload in half the normal time.

Regardless of the option chosen, the cost for this quirk is the same.

FINE MANIPULATORS (0 POINTS)

Though 'Mechs generally rely on hand actuators for any manual work, some units, such as the *Jupiter*, feature manipulators otherwise more commonly found on vehicles for delicate work.

A 'Mech with this quirk may mount up to one Manipulator (see *TM*, p. 245) in each side torso and/or arm location. These do not follow the normal construction rules and are weight free; the exact number must be specified.

GOOD REPUTATION (0 POINTS)

Whether due to clever marketing, use by an iconic MechWarrior, or proven capabilities, some 'Mechs are extremely popular. Such 'Mechs are worth a premium on the open market, as buyer demand means that acquiring one at its base price is almost impossible. For each level of this quirk, the 'Mech is worth 10% more C-bills than normal. This quirk is not worth points because it is not, strictly speaking, a bonus to the 'Mech.

Note that in some eras and/or locations, such as during the late Third Succession War period, 'Mechs as a whole are so rare that all may be considered to have the 1 point version of this quirk. Furthermore, this quirk is not applicable to Clan machines, as the Clans do not really have a secondary 'Mech market and Inner Sphere customers will gladly pay inflated prices to acquire Clan 'Mechs regardless of their reputation.

HYPER-EXTENDING ACTUATORS (1 POINT)

The arm actuators of 'Mechs like the *Quickdraw* can bend much further than normal. Even if it has lower arm and/or hand actuators, it can still flip arms to fire all arm-mounted weapons into its rear arc.

IMPROVED COMMUNICATIONS (1 POINT)

The 'Mech has an exceptionally powerful communications suite. The 'Mech automatically ignores the first level of ghost targets (see p. 101, TO) used against it. Additionally, it can always attempt a BattleMech Satellite uplink (see p. 194, TO) without being forced to give up its movement and combat actions.

IMPROVED COOLING JACKET (1 POINT)

One weapon's design incorporates a highly effective cooling jacket. When fired, this weapon generates 1 point less heat (never less than 1 point). More than one weapon can have this positive quirk, but the cost for each must be paid.

IMPROVED LIFE SUPPORT (1 POINT)

When determining damage to the MechWarrior or pilot as a result of heat following a life support critical hit, treat the 'Mech's heat level as being 5 points lower (an example of this is the *Shadow Hawk*) This quirk also doubles the cockpit's standard life support time, from four days to eight.

IMPROVED SENSORS (3 POINTS)

A 'Mech with this quirk is treated as if it has an active probe (range 4 for Inner Sphere 'Mechs, range 5 for Clan 'Mechs). If it is equipped with an actual active probe, instead add 2 to that active probe's range.

IMPROVED TARGETING (3: SHORT, 4: MEDIUM, OR 5: LONG POINTS)

The 'Mech has advanced targeting capabilities in one range bracket. The quirk can be applied up to three times, but can be taken only once per range bracket. The cost of the quirk varies with the range bracket chosen. All ranged attack Target Numbers at the selected range bracket receive a –1 modifier.

A 'Mech with this quirk cannot take Improved Targeting for the Extreme range bracket, nor can this quirk be combined with Variable Range Targeting.

JETTISON-CAPABLE WEAPON (1 POINT)

A 'Mech can be equipped with mounted weapons that can be jettisoned in combat and—if recovered—remounted on that 'Mech with ease. This feature can be seen in early Star League-era attempts to develop handheld weapon mounts, such as on the *BattleMaster*, *Griffin*, *Wolverine*, and *Phoenix Hawk*.

The quirk is bought for a single weapon; a 'Mech can carry a maximum of two jettison-capable weapons, paying the quirk cost each time. It is assumed that any official variant replacing a jettison-capable weapon with another weapon in the same location also uses a jettison-capable weapon, though a gamemaster may rule

that variants based on field refits or low-tech conditions do not benefit. No Handheld Weapon (see p. 315, *TO*) or item using pod technology may benefit from this quirk, though fixed weapons on an OmniMech may be jettison-capable.

A jettison-capable weapon may be dropped using the *Dumping Ammunition* rules (see p. 58), except no risk of hull breaches is created, and no risk of an explosion if a 'Mech jettisoning its weapons is struck from the rear. Jettisoning an ammunition-dependent weapon does not also jettison its ammunition. Treat any critical slots for a jettison-capable weapon as a Roll Again result if they are struck after the weapon is jettisoned.

In campaign play the location of a jettisoned weapon should be tracked, as it can be remounted on the 'Mech later using the same rules and time spent as an ammunition reload. A jettisoned weapon may be used by any 'Mech that is a variant of the 'Mech the weapon was originally designed for, as long as the variant features that exact weapon and in the exact same location.

MODULAR WEAPONS (1 POINT)

Though lacking the flexibility of an OmniMech, a 'Mech with Modular Weapons such as the *O-Bakemono* or *Mercury* can be repaired or customized more easily. Equipment can be replaced in half the normal time (though repairs in-place take the usual amount of time). When using the *Customization* rules (see p. 188, *SO*), half the time is required.

On some 'Mechs, only certain weapons or equipment are modular. In this case, the specific gear with the modular quality must be noted, but this does not reduce the quirk's cost.

MULTI-TRAC (2 POINTS)

A 'Mech with this quirk can track multiple targets and may attack any number of targets in its front and arm firing arcs in the same turn without adding the secondary-target modifier. Secondary targets in the rear arc are treated as normal.

NARROW/LOW PROFILE (2 POINTS)

Designs such as the *UrbanMech*, *Vulcan*, and *Lancelot* have a narrow or low profile that makes them harder to hit at range.

If the Margin of Success for a weapon attack made against a narrow/low profile 'Mech is 0 or 1, the hit is considered a glancing blow. For example, if you need to roll a 9 or better to hit the target, a result of 10 would be a glancing blow.

A glancing blow inflicts half the normal damage (rounded down); for weapons that roll on the Cluster Hits Table, instead apply a –4 modifier to the Cluster roll result (with a minimum result of 2). Additionally, apply a –2 modifier when rolling on the Determining Critical Hits Table any time a glancing blow yields the possibility of a critical hit; if using the *Advanced Determining Critical Hits* rule (see p. 85, *TO*), apply a –4 modifier instead.

This quirk has no effect versus non-weapon attacks, such as falls or physical attacks. It also has no effect versus all-or-nothing weapon attacks, such as Streak missile launchers.

If using the *Linking Weapons* rule (see p. 85, *TO*), the entire linked group is considered a glancing blow.

Damage Reduction: If also using the *Glancing Blow* rule (see p. 80, *TO*), the effects stack (1/4 damage is dealt). Any subtractive damage reduction effects (such as ferro-lamellor armor) are applied after all other damage reduction effects.

NIMBLE JUMPER (3 POINTS)

Jump jets are brute-force thrusters designed only to transport a 'Mech directly from point A to point B. Some 'Mechs, however, such as the *Spider*, are especially nimble when jumping. When a 'Mech with this quirk jumps, it need not follow the most direct path to its target hex. Instead, it may deviate from that path by up to one hex of its controller's choice (assuming the 'Mech has the Jumping MP required, of course; additional heat for such a jump is generated as normal for the jump jet type in use). For example, a jump that would normally cover six hexes can instead cover up to seven.

If a 'Mech jumps in this fashion, attacks against the 'Mech receive an additional +1 Target Movement Modifier (a total of +2 for jumping, instead of the normal +1; the extra hex traveled is also factored into the 'Mech's Target Movement Modifier, as normal). However, attacks made by the jumping 'Mech receive the same additional Target Number modifier (a total of +4 for jumping, instead of +3).

This quirk can only be taken by light or medium 'Mechs, and only for those that have at least as many Jumping MP as they do Walking MP.

OVERHEAD ARMS (2 POINTS)

'Mechs equipped with overhead arms—such as the *Fire Moth*—can deliver ranged, direct-fire attacks while hiding almost completely from view. This quirk cannot be combined with the Low-Mounted Arms quirk, nor can it be taken by any 'Mech that either does not have arms, or lacks any form of direct-fire ranged weaponry in said arms.

If standing, a 'Mech with Overhead Arms behind an adjacent Level 2 hill or building can fire its arm-mounted direct-fire weapons over it. Such attacks receive a +2 Target Number modifier. Friendly spotters cannot assist with this type of attack.

However, a 'Mech with Overhead Arms is always exposed to return fire in these circumstances: it can still be attacked despite being behind Level 2 terrain. Apply a +2 Target Number modifier to any attacks that pass through such covering terrain, in addition to the normal +1 partial cover modifier. In this case, only arm hits actually strike the target: all other hits strike the covering terrain instead. This form of partial cover is not negated by the attacker being any number of levels higher than the defender.

PROTECTED ACTUATORS (1 POINT)

Armor protection around the actuators is more effective, making a 'Mech with this quirk more resistant to Leg and Swarm attacks by infantry. The Target Numbers for such attacks receive a +1 modifier.

REINFORCED LEGS (1 POINT)

Designed for executing the dreaded "Death From Above" attack, some 'Mechs (the *Highlander*, for example) suffer half the normal damage to the legs when performing Death From Above successfully.

RUGGED (1 OR 2 POINTS)

Some 'Mechs are extremely reliable, reducing the frequency with which they require maintenance. The cost is 1 point if the 'Mech can go for two times as long between maintenance periods as normal, and 2 points if it can go up to three times as long.

SEARCHLIGHT (0 POINTS)

'Mechs such as the *Warhammer*, *Loki*, *Guillotine*, *Defiance* and *Rifleman* are equipped with mounted searchlights (see p. 62).

Each time a searchlight-equipped 'Mech takes a hit in any torso location (Front or Rear), the player must roll 2D6 to determine if the searchlight is destroyed. A result of 7+ means the searchlight is destroyed, in addition to the normal effects of the attack.

STABLE (2 POINTS)

'Mech designs such as the *Dragon* are exceptionally stable, receiving a –1 Target Number modifier when forced to make a Piloting Skill Roll as a result of a physical attack.

STABILIZED WEAPON (VARIES)

Some weapons, such as the center torso and head lasers of the *Mongoose*, are better cushioned against or otherwise compensated for the increased inaccuracy caused by moving at high speeds. If the 'Mech runs, all Target Numbers for that weapon receive a –1 modifier.

The cost is 1 point per 7 points (or fraction thereof) of maximum damage the weapon can inflict in a single Damage Value grouping. If the "weapon" deals 0 damage (such as TAG), the cost is 1 point. More than one weapon can receive this positive quirk, but the cost for each must be paid.

UBIQUITOUS (1 POINT)

Some 'Mechs, such as the *Archer*, *Wasp*, and *Locust*, have been in production for literally centuries, with thousands or even tens of thousands produced in that time across multiple nations. For other 'Mechs, the manufacturer has gone to exceptional lengths to ensure that parts are readily available, such as mass producing them or using parts from other, more common machines. Whatever the case, when attempting to locate replacement parts for these 'Mechs, apply a –2 Target Number modifier.

Note that this quirk does not cross between the Clans and the Inner Sphere. For example, a machine Ubiquitous amongst the Clans would not be Ubiquitous in the Inner Sphere, and vice versa.

VARIABLE RANGE TARGETING (VARIES)

A 'Mech with this quirk has an advanced targeting system that allows it to launch more accurate attacks at either long or short range, at the expense of reduced accuracy at other ranges. During a turn's End Phase, the controlling player must designate whether this improved targeting feature will be active at long or short range the next turn. All weapon attacks at the designated range receive a –1 Target Number modifier, but all weapon attacks at the other range receive a +1 Target Number modifier (medium range remains unmodified).

The cost is 1 point per 5 points (or fraction thereof) maximum damage that all the weapons mounted on the 'Mech can inflict (excluding physical attack weapons). This quirk cannot be combined with Improved Targeting.

VESTIGIAL HANDS (0 POINTS)

A 'Mech with vestigial hands lacks manipulators substantial enough for most game purposes, and does not have hand actuator critical hit slots. However, a 'Mech with vestigial hands may lift and drop items (see *Lifting Items (Simplified)*, p. 21) if a scenario objective requires it.

NEGATIVE DESIGN QUIRKS

The following negative design quirks each contain a rule detrimental to how the design performs during a game, whether during movement, in combat, when eliminating heat and so on.

Some of these quirks, such as Sensor Ghosts, are quite rare or even unheard of on standard examples of any BattleMech. These sorts of quirks are instead intended to allow players to add personality to worn and/or damaged machines.

AMMUNITION FEED PROBLEM (1 POINT)

The ammunition feed for one ballistic or missile weapon has a tendency to jam at inconvenient moments. On an unmodified attack roll of 2 with such a weapon, roll 2D6. On a result of 10+, the weapon jams and cannot be fired again in this battle. On a roll of 12, the new round of ammunition will explode in the weapon for normal damage. Per normal rules, Gauss weapon ammunition will not explode, but the weapon itself does.

BAD REPUTATION (1 POINT)

While perfectly sound, this 'Mech has acquired an unwarranted bad reputation (for example, the *Blackjack* during the Succession Wars). As a result, it is worth only half the normal resale value, unless 'Mechs are particularly rare for a given era and/or location (for example, in the late Third Succession War era, 'Mechs are remarkably hard to come by, and few would turn up their nose at even the most unpopular of machines).

Designs that are second-line or merely somewhat unpopular (such as the *Watchman* or *UrbanMech*) should likely not receive this quirk. Additionally, a 'Mech may have a Bad Reputation at one point in its career, but lose it later (such as the *Battle Hawk*).

The Clans do not really have the same sort of economic model when it comes to BattleMechs. Instead, if a Clan 'Mech has the Bad Reputation quirk and if the optional *Clan Honor* rules are in effect, the MechWarrior begins the battle with 1 *dezgra* point. The 'Mech will still fetch its full value if ever sold on an Inner Sphere market.

Note that when buying a 'Mech with a Bad Reputation, players generally still must pay its full price.

COOLING SYSTEM FLAWS (3 POINTS)

A flaw in the design can result in the 'Mech generating excess heat. Whenever the 'Mech executes or receives a physical attack, falls, or is forced to make a Piloting Skill roll because it received 20 points or more damage, roll 2D6. On a result of 10+ the 'Mech will generate 5 points more heat each turn for the rest of the battle. This can only occur once a battle.

CRAMPED COCKPIT (2 POINTS)

The poorly-designed cockpits of 'Mechs like the *Wolverine* and *Stinger* are very cramped. The 'Mech receives a +1 Piloting Skill Roll modifier. This quirk cannot be applied to 'Mechs with a Small Cockpit.

DIFFICULT EJECTION (1 POINT)

Certain designs have flaws in their emergency escape systems that can prove detrimental to the health of the MechWarrior. If the MechWarrior fails a Piloting Skill Roll when ejecting, they suffer an additional point of damage (in addition to the standard damage taken).

DIFFICULT TO MAINTAIN (1 POINT)

Some 'Mechs are harder to maintain and repair. All repair or replacement rolls made for this 'Mech receive a +1 Target Number modifier.

EM INTERFERENCE (1 OR 2 POINTS)

An energy weapon is insufficiently shielded and causes interference with other delicate electronics. The turn after the weapon has been fired, the following equipment aboard the 'Mech will not function: any ECM, any Active Probe, Artemis IV FCS, Artemis V FCS, Blue Shield PFD, any C^3, Chameleon LPS, Cockpit Command Console, Electronic Warfare Equipment, MASC, MRM FCS, NARC, Null Signature System, Stealth Armor, Streak Launchers, Supercharger, Targeting Computer, and Void Signature System.

Alternatively, this quirk can be purchased for the 'Mech itself, in which case the problem occurs whenever any energy weapon on the 'Mech is fired. The cost for this version of the quirk is 2 points, but can only be purchased if the 'Mech has more than one energy weapon.

EXPOSED ACTUATORS (1 POINT)

The actuators on some designs (such as the *Commando)* are poorly protected and more vulnerable to the effects of Swarm and Leg attacks by infantry. The Target Numbers for such attacks receive a –1 modifier.

EXPOSED WEAPON LINKAGE (2 POINTS)

Some designs such as the *Cygnus* have the mechanics of a weapon dangerously exposed. When a location that holds such a weapon is hit, roll 2D6. On a roll of 10+, that weapon is unable to fire for the remainder of the game.

This quirk can be taken only once and only for a single weapon type, and affects all weapons of that type on the 'Mech (for example, all AC/20s).

HARD TO PILOT (2 POINTS)

This 'Mech is hard to operate; MechWarriors receive a +1 Target Number modifier to all Piloting Skill Rolls.

ILLEGAL DESIGN (0 POINTS)

'Mechs designed with this quirk do not follow the existing construction rules for some reason, achieving effects that are not normally allowed in game-play, and which can fail spectacularly at any moment. (Note: The total weight and critical space of all components must still fit within the design's tonnage and critical space.)

If employed, the opposing player may roll 2D6 to determine if the 'Mech with this quirk suffers a catastrophic failure once every 6 turns of combat. On a result of 6 or higher, such catastrophic failure occurs in 1D6 of the 'Mech's hit locations (using the Front/Back Hit Locations Table). A Critical Hit check is then made for each failure location determined, applying a +4 modifier to the roll result. On any modified roll result of 13+, the location suffers complete collapse if it is an arm, leg, head, wing, main gun, or turret. This will destroy all items within (and any explosive components checks should be made as appropriate for location destruction). If the affected location is none of the above, it suffers 4 critical hits, determined as normal.

Illegal 'Mechs suffer an additional +4 Target Number modifier to repair or replace any damaged or destroyed components, and double all repair and maintenance times for work performed on them. If an Illegal 'Mech repair fails, the item gains the Nonfunctional quirk as well.

Finally, because they are technically failures at the time of their production, Illegal 'Mechs should also receive the Obsolete quirk (see p. 88), with the year of their obsolescence determined to be the same as their year of introduction.

INACCURATE WEAPON (VARIES)

Being of poor design, a weapon is less accurate than normal and receives a +1 Target Number modifier. The value is 1 point per 5 points (or fraction thereof) of maximum damage the weapon can inflict in a single Damage Value grouping.

More than one weapon can receive this quirk.

LOW-MOUNTED ARMS (2 POINTS)

'Mechs equipped with extremely low-mounted arms—such as the *Dark Crow*—have mounted their arms far too low to take advantage of the 'Mech's height advantage. This quirk cannot be combined with the Overhead Arms quirk, nor can it be taken by any 'Mech that either does not have arms, or lacks any form of weaponry in its arms.

A 'Mech with Low-Mounted Arms fires its arm-mounted weapons as if they are actually mounted in the 'Mech's legs, even though these arms still rotate with the torso position. As a result, these weapons may be blocked from firing by partial cover such as low hills and buildings. By the same token, attacks against 'Mech with Low-Mounted Arms that pass over partial cover cannot strike the 'Mech's arms either, and instead will strike the covering terrain.

NO/MINIMAL ARMS (2 POINTS)

Some 'Mechs effectively have no arms, such as the *Stalker* and *Locust*, or arms that are totally ineffective in aiding a fallen 'Mech in regaining its feet. When making a Piloting Skill Roll to stand up, such 'Mechs receive a +2 Target Number modifier; this is not cumulative with the *Attempting to Stand* optional rules (see p. 24, *TO*). In addition, the 'Mech cannot make physical attacks with its arms.

NO COOLING JACKET (2 POINTS)

A weapon's design excludes the standard cooling jacket. As a result, it generates 2 extra points of heat when fired.

NO EJECTION SYSTEM (2 POINTS)

Some 'Mechs—notably the *Spider*—lack an emergency escape system. The MechWarrior can never eject and thus cannot use the *Ejection (Simplified)* rules (see p. 81).

NO TORSO TWIST (2 POINTS)

Some 'Mech designs, like the *Bushwacker,* lack the flexibility to twist at the waist (or don't possess a waist to twist). A 'Mech with this quirk cannot torso twist.

NON-FUNCTIONAL ITEM (5 POINTS)

A 'Mech with this quirk has one or more components or pieces of equipment that simply do not work. No amount of repairs or replacement will correct this issue; the 'Mech must be redesigned from the ground up to solve the problem.

A 'Mech can have multiple Non-functional quirks, but each must be assigned to the specifically non-operational components they possess.

NON-STANDARD PARTS (1 POINT)

Constructed with non-standard components—such as the *Clint*—it is more difficult to source parts for this 'Mech. When attempting to locate replacement parts, add +2 to the Target Number.

OBSOLETE (4 POINTS)

An Obsolete 'Mech is one built using technological and/or construction standards that have been completely abandoned, such as any Primitive 'Mech from the Star League era until the Jihad. Though still serviceable—and maybe even effective—an obsolete 'Mech is extremely difficult to maintain after its parts sources go silent, forcing technicians to resort to jury-rigging and hand-machining even the most basic structural parts and electronics to keep it battle worthy.

A 'Mech with the Obsolete quirk cannot have any variants in active production, and must note the year in which its production ceased as part of the quirk. After that, the 'Mech will become increasingly hard to maintain, and its resale price will drop (for anyone except antique collectors, that is). To reflect this, for every 15 years after production of an obsolete 'Mech ceased, any rolls to repair or replace equipment on the 'Mech—or to even locate said parts—will suffer a +1 Target Number increase (to a maximum of +5). In addition, for every 20 years after production of an obsolete 'Mech ceased, the resale cost (but not the purchase cost) will decrease by 10 percent (to a minimum of 50 percent).

A 'Mech that somehow comes back into production after becoming obsolete automatically negates this quirk 10 years after returning to production. Additionally, some 'Mechs may have parts manufactured for them even if the chassis themselves are out of production, and thus would not qualify for this quirk. Note that an obsolete 'Mech may still receive additional modifiers for other quirks such as Difficult to Maintain, Easy to Maintain, Non-Standard Parts, and Ubiquitous.

OVERSIZED (2 POINTS)

The Oversized quirk cannot be combined with the Narrow/Low Profile quirk, and is further limited to 'Mechs of heavy weight (60 tons) and larger. This quirk describes a 'Mech that has been built physically larger than the norm, such as the *Mackie* or *Scylla*.

Any Piloting Skill Rolls required of an Oversized 'Mech to avoid damage when passing through buildings suffer a +1 Target Number modifier. Furthermore, they find it harder to use covering terrain effectively: an Oversized 'Mech never receives the +1 Target Number modifier for partial cover when being attacked.

POOR COOLING JACKET (1 POINT)

A weapon has a meager or badly designed cooling jacket. As a result, it generates 1 more point of heat than normal when fired.

POOR LIFE SUPPORT (1 POINT)

When determining damage to the MechWarrior or pilot as a result of heat following a life support critical hit, treat the 'Mech's heat level as being 5 points higher. This quirk also reduces the cockpit's standard life support time from four days to two.

POOR PERFORMANCE (3 POINTS)

The 'Mech cannot reach maximum speed immediately. It must spend one turn expending MP equal to its Walking speed before it can use MP up to its Running speed the following turn.

POOR SEALING (2 POINTS)

A 'Mech with the Poor Sealing quirk suffers from imperfections in its structural and armor design that make it more susceptible to leaks and other failures in hostile environments. In any situation where a 'Mech much check for hull breaches and/or flooding (such as suffering damage while operating in vacuum, toxic environments and underwater), this quirk adds a +2 modifier to the roll when making a Hull Breach check. If the 'Mech would otherwise not be susceptible to hull breaches, consider it to have a base Hull Breach TN of 12 before applying this modifier.

In addition to the above, a 'Mech with Poor Sealing must also make a Hull Breach check when first entering a hostile environment (such as vacuum or toxic atmospheres, when entering water, or when becoming completely submerged in water). Failure will result in a flood to a random location that is exposed to the hostile environment (use the appropriate Front Locations Table to determine the affected area).

POOR TARGETING (2 POINTS)

The 'Mech has poor targeting capabilities in one range bracket. This quirk can be applied more than once, but can be taken only once per range bracket. All ranged attacks at the selected range bracket receive a +1 Target Number modifier.

A 'Mech cannot take Poor Targeting for Extreme Range.

POOR WORKMANSHIP (1 POINT)

Not all manufacturers are as dedicated to producing quality products. This 'Mech is one quality step lower than normal. In addition, all rolls for critical damage are modified by +1, making critical hits more likely. Results of 13 are treated as 12 (except if using *Advanced Determining Critical Hits*, in which case do not modify down; see p. 74, *TO*).

PROTOTYPE (2 POINTS)

The 'Mech is a prototype and still has some issues. Its systems are less resilient and lack the redundancy that will be incorporated into the production model. All rolls for critical damage are modified by +2, making critical hits much more likely. Results of 13 or over are treated as 12 (except if using *Advanced Determining Critical Hits*, in which case do not modify down; see p. 74, *TO*).

Even if brand new, designs that have just entered service have all passed the prototype stage and so likely do not qualify for this quirk. 'Mechs found in the *Experimental Technical Readout* series of products would make good candidates.

RAMSHACKLE (3 POINTS)

Decades or even centuries of hard service and substandard maintenance have led to an unpredictable machine patched together with bailing wire and prayers.

The 'Mech's controller rolls 1D6 at the start of the battle. The result indicates what negative quirk, if any, applies to that 'Mech for the duration of the battle: Sensor Ghosts (1), EM Interference (entire 'Mech) (2), Hard to Pilot (3), Cooling System Flaws (4), Poor Performance (5), or no negative result (6).

SENSOR GHOSTS (3 POINTS)

The 'Mech's sensor suite projects ghost images, causing significant targeting problems. All ranged attacks receive a +1 Target Number modifier.

SLOW TRAVERSE (1 POINT)

The 'Mech has an underpowered turret traverse mechanism. Any turret (or 3-point Directional Torso Mount) on the 'Mech may only rotate one hexside in a turn.

STATIC AMMO FEED (2 POINTS)

Weapons with the Static Ammo Feed quirk use a very crude or minimized form of ammunition feed that renders the weapon incapable of switching between multiple ammunition bins. It is most commonly seen in 'Mechs that feature exposed ammunition feeds, such as the *Blade* or the *Cygnus*, and thus often occurs in conjunction with the Exposed Weapon Linkage quirk.

The Static Ammo Feed quirk must be taken for each affected weapon type the 'Mech carries, though it can cover multiple weapons of that type at the same time. Thus, a 'Mech with two Autocannon/10s and two Autocannon/5s would need two Static Ammo Quirks to account for all four weapons having this issue, if desired—one for the AC/10s and the other for the AC/5s. This quick cannot be applied to weapons without switchable ammunition.

Weapons covered by this quirk will be unable to switch between different ammunition types, even if they possess the Switchable (S) feature. Thus, all ammunition carried for a weapon with a Static Ammo Feed must be of the same type throughout play.

UNBALANCED (1 POINT)

The 'Mech's design (one notorious example is the *Javelin*) is unbalanced. Treat this quirk as a +1 Target Number modifier for Piloting Skill Rolls made whenever the 'Mech enters a hex requiring a PSR due to a building type or planetary condition (i.e. Terrain Type, Terrain Modification, and so on).

WEAK HEAD ARMOR (VARIES)

The value of this quirk is equal to the number of armor points effectively lost; for example, a 'Mech with 9 points of head armor but using a 4-point version of this quirk effectively has only 5 armor points.

WEAK LEGS (1 POINT)

This 'Mech's legs were never designed to take the stresses involved in physical attacks. When the 'Mech is kicked or executes a Death From Above attack, roll for a possible critical hit on each leg (even if the armor is not breached) and apply the results.

STRATEGIC

MASTER UNIT LIST

The Master Unit List is the free online database providing fans with a comprehensive list of official game units. Drawing on over thirty years of official *BattleTech* supplements, there you'll find more than 3,500 variants for well over 900 individual combat units! And updates ensure you'll always be provided with the latest configurations.

Vast functionality has been incorporated to give you the tools necessary for building accurate and dynamic forces. The database can be sorted by *BattleTech* Eras spanning the history of the game's many rich time periods. You can also sort by the many *BattleTech* factions—the Star League, the Great Houses, the Clans, and of course Mercenaries and Pirates.

Even more tools are available at the free Master Unit List site. Beyond helpful walkthroughs to get you started, you'll find dice roll aids for cluster hits, force-balanced assignment tables, Battle Value skill calculations, and even tools to generate random planetary systems.

Visit WWW.MASTERUNITLIST.INFO today!

BATTLEMECH QUIRK LISTING

Technical Readout: Prototypes introduced the practice of including design quirks with each new unit, a process that has continued with subsequent Technical Readouts. However, earlier Technical Readouts lack quirk details. For players interested in a recommended list of quirks for older machines, the following should be of help.

Base Designs vs. Variants: Note that the following quirk list is intended to cover each 'Mech in the broadest possible sense. For the most part, each quirk assignment is meant to cover all variants of that machine, and all eras in which it appears. There are literally thousands of 'Mech variants in the *BattleTech* universe: attempting to assign quirks to every variant of every machine would require more space than is available. Players should thus feel free to modify these quirk assignments to deal with specific variants or eras.

Additionally, individual machines may be modified as usual to represent the trials and tribulations (or upgrades) it has undergone in the field, with the usual caveat that player-added positive quirks should be balanced by an equivalent point total in negative quirks as normal.

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Akuma	Easy To Maintain
Albatross	Easy To Maintain, Improved Targeting (Long)
Alfar	Non-Standard Parts
Annihilator	Easy To Maintain
Anubis	Extended Torso Twist; Difficult To Maintain
Anvil	Extended Torso Twist, Improved Targeting (Medium)
Apollo	Fast Reload, Rugged (1)
Aquagladius	Difficult Ejection, Difficult To Maintain
Arbalest	Easy To Maintain
Arcas	Protected Actuators
Archangel	Command 'Mech, Improved Communications, Improved Sensors; Bad Reputation
Archer	Battlefists, Command 'Mech, Stable, Ubiquitous
Arctic Fox	No Torso Twist, Weak Head Armor (1)
Arctic Wolf	Improved Targeting (Short)
Arctic Wolf II	Improved Targeting (Short)
Argus	Easy To Maintain; No/Minimal Arms
Assassin	Easy To Maintain; Cramped Cockpit, Non-Standard Parts, Poor Life Support
Atlas	Battlefists, Command 'Mech, Distracting, Improved Comm.
Atlas II	Battlefists, Command 'Mech, Distracting
Avatar	Stabilized Weapons (CT Medium Lasers)
Awesome	Battlefists (LA)
Axman	Protected Actuators
Baboon (Howler)	Extended Torso Twist, Narrow/Low Profile, Searchlight
Balius	Rugged (1)
Bandersnatch	Stable, Ubiquitous
Banshee	Rugged (1); Bad Reputation (prior to 3025)
Banzai	Stabilized Weapons (RA Large Pulse Lasers); Difficult To Maintain, Non-Standard Parts, Prototype
Barghest	Directional Torso Mount (LT/RT)
Battle Cobra	Extended Torso Twist
Battle Hawk	Rugged (1); Bad Reputation
BattleAxe	Difficult To Maintain
BattleMaster	Command 'Mech, Jettison-Capable Weapon (PPC)
Bear Cub	Easy To Pilot, Extended Torso Twist; Cramped Cockpit
Behemoth (Stone Rhino)	Barrel Fist (LA/RA), Protected Actuators; Oversized, Poor Performance, Weak Head Armor (1)
Beowulf	Command 'Mech, Extended Torso Twist; Exposed Actuators
Berserker	Distracting
Bishamon	Difficult To Maintain
Black Hawk (Nova)	Combat Computer, Narrow/Low/Profile; No Torso Twist
Black Hawk-KU	Easy To Maintain; No Torso Twist
Black Knight	Command 'Mech
Black Lanner	Stable

BattleMech	Quirks
Black Watch	Easy To Pilot
Blackjack	Bad Reputation
Blackjack (Omni)	Non-Standard Parts
Blade	Easy To Maintain, Modular Weapons; Exposed Weapon Linkage (RAC/5), Static Ammo Feed
Blitzkrieg	Directional Torso Mount (CT/LT); No/Minimal Arms
Blood Asp	Rugged (1)
Blood Kite	Easy To Maintain, Rugged (2)
Blood Reaper	Hyper-Extending Actuators, Rugged (1)
Bloodhound	Improved Sensors, Protected Actuators
Blue Flame	Directional Torso Mount (H/LT/RT); Bad Reputation
Bombard	Bad Reputation, Non-Standard Parts
Bombardier	Bad Reputation
Bowman	Fast Reload (Arrow IV), Stable; Bad Reputation (Clan)
Brahma	Stabilized Weapon (LAC/5)
Brigand	Modular Weapons, Nimble Jumper
Bruin	Rugged (1); Exposed Actuators
Buccaneer	Improved Targeting (Short); Bad Reputation
Burrock	Stable
Bushwacker	Narrow/Low Profile, Stabilized Weapon (Large Laser)
Caesar	Hyper-Extending Actuators
Canis	Fast Reload
Cataphract	Protected Actuators
Catapult	No/Minimal Arms, Weak Head Armor (1)
Cauldron-Born (Ebon Jaguar)	Narrow/Low Profile
Centurion	Improved Targeting (Short); Non-Standard Parts
Cephalus	Improved Life Support; Bad Reputation (Clan), Difficult To Maintain, No/Minimal Arms
Cerberus	Barrel Fist (LA/RA), Improved Targeting (Long); Vestigial Hands
Cestus	Stabilized Weapon (Gauss Rifle)
Chameleon	Easy To Pilot
Champion	No/Minimal Arms
Charger	Barrel Fist (LA), Easy To Maintain; Bad Reputation
Chimera	Nimble Jumper
Cicada	No/Minimal Arms, No Torso Twist
Clint	Improved Targeting (Medium, Long); Exposed Actuators, Difficult To Maintain, Non-Standard Parts
Clint IIC	Improved Targeting (Medium, Long)
Cobra	Barrel Fist (LA/RA)
Colossus	Stable; Low-Mounted Arms
Commando	Narrow/Low Profile; Exposed Actuators
Commando IIC	Narrow/Low Profile; Exposed Actuators
Copperhead	Difficult To Maintain

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Corvis	Modular Weapons
Cossack	Extended Torso Twist
Cougar	Ubiquitous
Coyotl	Extended Torso Twist
Crab	Easy To Maintain
Crimson Hawk	Protected Actuators
Crimson Langur	Easy To Maintain, Improved Communications, Protected Actuators
Crockett	Easy To Pilot; Poor Life Support
Cronus	Easy To Maintain
Crossbow	Modular Weapons (LRM 10s); Obsolete (2550-3070), Poor Targeting (Long)
Crossbow (Omni)	Improved Targeting (Short)
Crusader	Easy To Maintain, Rugged (1), Stabilized Weapon (Legs), Ubiquitous
Cudgel	Difficult To Maintain
Cuirass	Easy To Maintain
Cyclops	Battle Computer, Cowl; Difficult Ejection, Weak Head Armor (2)
Cygnus	Exposed Weapon Linkage, Static Ammo Feed
Daboku	No Torso Twist, Prototype
Daedalus	Difficult To Maintain
Daikyu	Extended Torso Twist
Daimyo	Extended Torso Twist, Narrow/Low Profile; Difficult To Maintain
Daishi (Dire Wolf)	Improved Targeting (Long); Difficult Ejection
Dark Crow	Low-Mounted Arms
Dart	Extended Torso Twist
Dasher (Fire Moth)	Narrow/Low Profile, Overhead Arms
Dasher II	Poor Performance
Defiance	Barrel Fist (LA/RA), Hyper-Extending Actuators, Searchlight, Stable
Deimos	Anti-Aircraft Targeting
Dervish	Easy To Maintain, Hyper-Extending Actuators
Deva	Improved Communications, Improved Sensors; Bad Reputation
Devastator	Hyper-Extending Actuators, Searchlight
Dragon	Narrow/Low Profile, Stable
Dragon Fire	Good Reputation (1); No/Minimal Arms
Dragonfly (Viper)	Improved Targeting (Long), Narrow/Low Profile; No Torso Twist
Dragoon	Easy To Maintain, Modular Weapons; Bad Reputation, Obsolete (2780)
Duan Gung	Protected Actuators; Non-Standard Parts
Eagle	Extended Torso Twist; Weak Head Armor (1)
Ebony	Improved Targeting (Medium)
Eidolon	Non-Standard Parts
Eisenfaust	Battlefists, Easy To Maintain, Protected Actuators
Emperor	Command 'Mech, Improved Cooling Jacket (LA/RA Large Laser)
Enfield	Extended Torso Twist
Enforcer	Barrel Fist (LA/RA), Fast Reload (AC/10), Improved Cooling Jacket (AC/10); Ammunition Feed Problem (AC/10)
Enforcer III	Barrel Fist (LA/RA), Fast Reload (UAC/10)
Epimetheus	Non-Standard Parts, Prototype
Excalibur	Vestigial Hands
Exterminator	Difficult To Maintain
Eyleuka	Exposed Actuators
Fafnir	Stabilized Weapon (LT/RT Heavy Gauss Rifles); No/Minimal Arms
Falcon	Narrow/Low Profile
Falcon Hawk	Good Reputation (1)
Falconer	Stable; No Torso Twist
Fennec	No/Minimal Arms
Fenris (Ice Ferret)	Improved Sensors
Fire Falcon	Improved Sensors
Fire Scorpion	Cowl
Fireball	Improved Communications, Narrow/Low Profile
Firebee	Poor Life Support, Weak Legs
Firefly	No/Minimal Arms, No Torso Twist
Firestarter	Ubiquitous; Exposed Weapon Linkage (LA/RA Flamers)
Firestarter (Omni)	Cowl; Difficult To Maintain
Flamberge	Improved Targeting (Medium)
Flashfire	Modular Weapons (Fluid Guns)
Flashman	Rugged (1)
Flea	Easy To Maintain, Improved Life Support; No/Minimal Arms
Galahad	Difficult To Maintain
Galahad (Glass Spider)	Anti-Aircraft Targeting, Extended Torso Twist, Multi-Trac
Gallant	Stabilized Weapons (RA Large Pulse Lasers)
Gallowglas	Good Reputation (1)
Garm	Extended Torso Twist
Ghost	Extended Torso Twist, Improved Communications, Improved Sensors
Gladiator	Cowl; Bad Reputation
Gladiator (Executioner)	Distracting
Goliath	Multi-Trac; Exposed Actuators
Goshawk (Vapor Eagle)	Nimble Jumper
Goshawk II	Improved Life Support, Nimble Jumper
Grand Crusader	Bad Reputation
Grand Crusader II	Easy To Maintain, Stable; Bad Reputation

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Grand Dragon	Extended Torso Twist, Narrow/Low Profile, Stable
Grand Titan	Multi-Trac; Difficult To Maintain
Grasshopper	Rugged (1)
Great Turtle	Improved Targeting (Short); Poor Performance
Great Wyrm	Stable
Grendel (Mongrel)	Rugged (1)
Griffin	Battlefists, Jettison-Capable Weapon (PPC), Rugged (1), Ubiquitous
Griffin IIC	Battlefists
Grigori	Improved Communications, Improved Sensors; Bad Reputation
Grim Reaper	Easy To Maintain, Protected Actuators
Grizzly	Difficult To Maintain, Exposed Actuators
Guillotine	Searchlight
Guillotine IIC	Searchlight
Gunslinger	Cowl
Gurkha	Bad Reputation, Exposed Actuators
Ha Otoko	Bad Reputation (Clan)
Hachiwara	Difficult To Maintain
Hammer	Extended Torso Twist, Improved Targeting (Long)
Hammerhands	Barrel Fist (LA/RA), Protected Actuators
Hankyu (Arctic Cheetah)	Protected Actuators
Hatamoto	Barrel Fist (LA), Easy To Maintain, Modular Weapons (Torso SRMs)
Hatchetman	Anti-Aircraft Targeting
Hauptmann	Easy To Maintain, Extended Torso Twist
Hector	Bad Reputation, Exposed Actuators, Obsolete (2420)
Helepolis	Reinforced Legs, Stable
Helios	Easy To Maintain
Hellfire	Difficult To Maintain
Hellhound (Conjurer)	Extended Torso Twist
Hellion	Weak Head Armor (1)
Hellspawn	Bad Reputation
Hellstar	Barrel Fist (LA/RA); Exposed Actuators
Hercules	Difficult To Maintain
Hermes	No Torso Twist
Hermes II	Easy To Maintain, Improved Communications; No Torso Twist
Highlander	Command 'Mech, Cowl, Reinforced Legs; Difficult Ejection
Highlander IIC	Command 'Mech, Cowl, Reinforced Legs; Difficult Ejection
Hitman	Accurate Weapon (TAG), Stabilized Weapon (TAG)
Hollander	Reinforced Legs, Stabilized Weapon (Gauss Rifle); Unbalanced
Hollander II	Reinforced Legs, Stabilized Weapon (Gauss Rifle)

BattleMech	Quirks
Hoplite	No/Minimal Arms, No Torso Twist
Hornet	Narrow/Low Profile; No/Minimal Arms, No Torso Twist
Hunchback	Battlefists
Hunchback IIC	Bad Reputation (Clan)
Huron Warrior	Improved Sensors
Hussar	Directional Torso Mount (CT), Improved Communications, Rugged (1)
Icarus II	Improved Targeting (Short)
Icestorm	Improved Sensors, Rugged (1)
Imp	Command 'Mech; Difficult To Maintain
Initiate	Hyper-Extending Actuators; Bad Reputation
Jackal	Improved Cooling Jacket (ER PPC); Weak Legs
JagerMech	Anti-Aircraft Targeting; No Torso Twist
JagerMech III	Anti-Aircraft Targeting, Overhead Arms; No Torso Twist
Javelin	Unbalanced
Jenner	No/Minimal Arms, No Torso Twist
Jenner IIC	No/Minimal Arms, No Torso Twist
Jinggau	Narrow/Low Profile; No Torso Twist, Weak Head Armor (2)
Juggernaut	Improved Life Support; Difficult To Maintain
Jupiter	Fine Manipulators, Improved Sensors, Improved Targeting (Long)
Kabuto	Extended Torso Twist
Karhu	EM Interference
King Crab	Command 'Mech; No Torso Twist
Kingfisher	Rugged (1)
Kintaro	Rugged (1)
Kodiak	Battlefists, Distracting
Komodo	Extended Torso Twist, Narrow/Low Profile, Protected Actuators; Weak Head Armor (2)
Koschei	Improved Life Support; Weak Head Armor (1)
Koshi (Mist Lynx)	Improved Sensors, Narrow/Low Profile
Koto	EM Interference
Kraken (Bane)	Extended Torso Twist, Protected Actuators
Kuma	Accurate Weapon (Heavy Large Laser); Hard To Pilot
Kyudo	Easy To Pilot; Exposed Actuators
Lancelot	Anti-Aircraft Targeting, Narrow/Low Profile; Bad Reputation
Lao Hu	Good Reputation (1)
Legacy	Directional Torso Mount (LT/RT); Bad Reputation
Legionnaire	Easy To Maintain, Improved Targeting (Medium); Exposed Weapon Linkage
Lightray	Hyper-Extending Actuators; Bad Reputation, Exposed Actuators
Linebacker	Stable; No Torso Twist
Lineholder	Easy To Maintain
Lobo	Directional Torso Mount (AMS), Extended Torso Twist; Difficult To Maintain

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Locust	Narrow/Low Profile, Ubiquitous; No/Minimal Arms, Weak Legs
Locust IIC	Easy To Maintain, Narrow/Low Profile; No/Minimal Arms, Weak Legs
Loki (Hellbringer)	Searchlight
Longbow	Anti-Aircraft Targeting, Searchlight, Ubiquitous; No/Minimal Arms
Longshot	Difficult To Maintain
Lupus	Exposed Actuators
Lynx	Multi-Trac
Mackie	Easy To Maintain, Protected Actuators, Rugged (1); Oversized
Mad Cat (Timber Wolf)	Improved Targeting (Medium); Weak Head Armor (1)
Mad Cat Mk II	Improved Targeting (Medium)
Maelstrom	Good Reputation (1); No Torso Twist
Malak	Improved Comm. Improved Sensors; Bad Reputation
Man O' War (Gargoyle)	Stabilized Weapons (LA/RA)
Mandrill	Narrow/Low Profile
Mangonel	Difficult To Maintain, No/Minimal Arms
Mantis	Non-Standard Parts
Marauder	Command 'Mech, Directional Torso Mount (RT), Hyper-Extending Actuators, Narrow/Low Profile; Exposed Weapon Linkage (AC/5)
Marauder II	Command 'Mech, Directional Torso Mount (RT), Hyper-Extending Actuators, Narrow/Low Profile
Marauder IIC	Command 'Mech, Hyper-Extending Actuators; Exposed Actuators
Marshal	Easy To Maintain, Rugged (2)
Masakari (Warhawk)	Improved Targeting (Long)
Matador	Battlefists
Mauler	No Torso Twist
Men Shen	Improved Communications, Improved Sensors; Exposed Actuators
Mercury	Easy To Maintain, Modular Weapons; No Torso Twist
Mercury II	Narrow/Low Profile, Stabilized Weapon (CT Medium Laser); Bad Reputation (Clan)
Merlin	Easy To Maintain, Rugged (1)
Mjolnir	Accurate Weapon (Mace), Easy To Maintain
Mongoose	Command 'Mech, Easy To Pilot, Stabilized Weapons (Small Laser & CT Medium Laser)
Mongoose II	Command 'Mech, Improved Communications
Morpheus	Protected Actuators; Difficult To Maintain
Morrigan	Stabilized Weapon (Heavy Large Laser); Weak Legs
Naga	Extended Torso Twist; Bad Reputation (Clan), No/Minimal Arms
Naginata	Cowl, Stable
Nexus	Bad Reputation
Nexus II	Extended Torso Twist; Bad Reputation
Night Gyr	Difficult To Maintain
Night Hawk	Easy To Maintain
Night Wolf	Directional Torso Mount (AMS), Hyper-Extending Actuators
Nightsky	Modular Weapon (Hatchet)
Nightstar	Command 'Mech, Good Reputation (1), Variable Range Targeting; Difficult To Maintain
Ninja-To	Stable
Nobori-nin (Huntsman)	Stable
No-Dachi	Hyper-Extending Actuators
Nova Cat	Extended Torso Twist; Exposed Actuators
Nyx	Narrow/Low Profile; Difficult To Maintain
O-Bakemono	Modular Weapons; No/Minimal Arms
Ocelot	Jettison-Capable Weapon (RA Medium Lasers)
Omen	Protected Actuators, Rugged (1)
Onager	Battlefists (RA); Exposed Actuators, Exposed Weapon Linkage (HAG/30)
Onslaught	Protected Actuators; Non-Standard Parts
Orion	Anti-Aircraft Targeting, Easy To Maintain, Rugged (1)
Orion IIC	Anti-Aircraft Targeting, Easy To Maintain, Rugged (1)
Orochi	No/Minimal Arms
Osiris	Directional Torso Mount (1 CT ER Medium Laser), Extended Torso Twist
Osprey	Directional Torso Mount (RT); No/Minimal Arms
Osteon	Extended Torso Twist, Multi-Trac, Protected Actuators; Bad Reputation (Clan)
Ostroc	Narrow/Low Profile
Ostscout	Improved Communications, Improved Sensors, Narrow/Low Profile, Rugged (1)
Ostsol	Improved Sensors, Narrow/Low Profile
Ostwar	Easy To Maintain
Owens	Improved Sensors
Pack Hunter	Reinforced Legs
Pack Hunter II	Stabilized Weapon (ER PPC)
Paladin	Difficult To Maintain, Non-Standard Parts
Panther	Improved Targeting (Short), Nimble Jumper
Parash	Jettison-Capable Weapon (Large Pulse Laser), Narrow/Low Profile
Pariah (Septicemia)	Extended Torso Twist, Multi-Trac; Bad Reputation (Clan)
Pathfinder	Improved Sensors
Patriot	Protected Actuators, Stable
Peacekeeper	Rugged (1)
Penetrator	Good Reputation (1), Stable

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Penthesilea	Rugged (1), Stabilized Weapons (CT ER Medium Lasers)
Peregrine (Horned Owl)	Stabilized Weapon (CT Medium Laser)
Perseus	Anti-Aircraft Targeting, Easy To Maintain
Phantom	Improved Sensors
Phoenix	Directional Torso Mount (SRMs); EM Interference
Phoenix Hawk	Improved Communications, Jettison-Capable Weapon (Large Laser), Ubiquitous
Phoenix Hawk IIC	Easy To Maintain, Fast Reload (torso weapons)
Pillager	Battlefists
Pinion	Bad Reputation (Clan)
Piranha	Improved Targeting (Short)
Porcupine	Distracting
Pouncer	Weak Head Armor (2)
Predator	Cramped Cockpit, Difficult Ejection
Prefect	Extended Torso Twist
Preta	Improved Communications, Improved Sensors; Bad Reputation, Exposed Actuators
Prometheus	Non-Standard Parts, Prototype
Prowler	Poor Life Support
Pulverizer	Accurate Weapon (Enhanced ER PPC), Easy To Maintain, Protected Actuators; Bad Reputation (Clan)
Puma (Adder)	Narrow/Low Profile; No Torso Twist
Quickdraw	Hyper-Extending Actuators; Exposed Actuators
Rabid Coyote	Improved Targeting (Short); Bad Reputation (Clan)
Raijin	Directional Torso Mount (LT/RT), Extended Torso Twist; Bad Reputation
Raijin II	Extended Torso Twist; Bad Reputation
Rakshasa	Easy To Maintain; Weak Head Armor (1)
Rampage	Vestigial Hand (RA); Bad Reputation, Obsolete (2780)
Raptor	Easy To Maintain
Raptor II	No/Minimal Arms, No Ejection System
Raven	No/Minimal Arms
Razorback	Narrow/Low Profile; No/Minimal Arms
Red Shift	Accurate Weapon (TAG), Improved Communications, Narrow/Low Profile; Bad Reputation
Rifleman	Anti-Aircraft Targeting, Improved Communications, Searchlight, Ubiquitous
Rifleman II	Anti-Aircraft Targeting, Improved Communications, Searchlight
Rifleman IIC	Anti-Aircraft Targeting, Improved Communications
Ronin	Non-Standard Parts
Rook	Rugged (1)
Ryoken (Stormcrow)	Stable
Ryoken II	Stable
Sagittaire	Improved Targeting (Short); Difficult To Maintain, Weak Head Armor (1)
Salamander	Difficult To Maintain
Sasquatch	Difficult To Maintain
Savage Coyote	Oversized
Scarabus	Rugged (1)
Scorpion	Bad Reputation, Hard To Pilot
Scylla	Oversized
Sentinel	Improved Communications; Ammunition Feed Problem (SRM 2), No Torso Twist
Sentry	Easy To Maintain, Easy To Pilot, Rugged (1), Ubiquitous
Seraph	Improved Communications, Improved Sensors; Bad Reputation
Sha Yu	Improved Communications
Shadow Cat	Narrow/Low Profile
Shadow Cat II	Easy To Maintain, Narrow/Low Profile
Shadow Hawk	Battlefists, Improved Life Support, Ubiquitous
Shadow Hawk IIC	Battlefists, Improved Life Support
Shen Yi	Weak Head Armor (1)
Shockwave	Battlefists, Easy To Maintain; Exposed Weapon Linkage (RAC/5)
Shogun	Barrel Fist (LA/RA); Difficult To Maintain, Non-Standard Parts
Shootist	Command 'Mech
Shugenja	Cowl, Hyper-Extending Actuators; Exposed Actuators
Silver Fox	Non-Standard Parts, Weak Head Armor (1)
Sirocco	Directional Torso Mount (All); Difficult To Maintain
Slagmaiden	Jettison-Capable Weapon (Shield); Exposed Actuators, Prototype
Sling	Cramped Cockpit
Snake	Improved Targeting (Short), Protected Actuators; No Torso Twist
Snow Fox	Narrow/Low Profile; Hard To Pilot
Solitaire	Improved Cooling Jacket (Heavy Large Laser), Stabilized Weapon (Heavy Large Laser); Exposed Actuators
Spartan	Improved Sensors
Spatha	Difficult To Maintain, Non-Standard Parts
Spector	Difficult To Maintain, Rugged (1)
Sphinx	Easy To Maintain, Rugged (1)
Spider	Easy To Maintain, Nimble Jumper; No Ejection System
Spirit	Jettison-Capable Weapon (SSRM 4)
Stag	Improved Communications, Improved Sensors, Stabilized Weapon (RA ER Large Laser); Bad Reputation (Clan)
Stalker	Combat Computer, Ubiquitous; No/Minimal Arms
Stalking Spider	Stable
Starslayer	Rugged (1)

BATTLEMECH QUIRK TABLE

BattleMech	Quirks
Stealth	Improved Sensors
Stiletto	Multi-Trac; Difficult Ejection
Stinger	Rugged (1), Ubiquitous; Cramped Cockpit
Stooping Hawk	Rugged (2)
Strider	Easy To Pilot
Striker	Easy To Maintain
Sun Cobra	Protected Actuators
Sunder	Extended Torso Twist
Supernova	Improved Targeting (Long)
Tai-sho	Improved Communications, Stabilized Weapon (UAC/10)
Talon	Rugged (1); No/Minimal Arms
Talos	Easy To Pilot
Tarantula	Easy To Pilot, Extended Torso Twist; Exposed Actuators
Targe	Extended Torso Twist; Bad Reputation, No/Minimal Arms
Tempest	Directional Torso Mount (H Medium Laser)
Templar	Easy To Maintain
Tessen	Bad Reputation
Thanatos	Stable
Thor (Summoner)	Improved Communications, Ubiquitous
Thorn	Easy To Maintain
Thresher	Improved Targeting (Medium)
Thug	No Torso Twist
Thunder	Cowl
Thunder Fox	Easy To Maintain
Thunder Hawk	Command 'Mech, Good Reputation (1), Variable Range Targeting; Difficult To Maintain
Thunder Stallion	Cramped Cockpit
Thunderbolt	Multi-Trac, Rugged (2), Ubiquitous
Ti Ts'ang	Hyper-Extending Actuators
Titan	Protected Actuators
Titan II	Protected Actuators
Toro	Cramped Cockpit
Toyama	Bad Reputation
Trebaruna	Command 'Mech
Trebuchet	Easy To Maintain, Fast Reload (torso weapons)
Tsunami	Difficult To Maintain
Tundra Wolf	Easy To Maintain; Weak Head Armor (1)
Turkina	No Torso Twist
Uller (Kit Fox)	Narrow/Low Profile; No Torso Twist
UrbanMech	Extended Torso Twist, Narrow/Low Profile; No/Minimal Arms
UrbanMech IIC	Extended Torso Twist, Narrow/Low Profile; No/Minimal Arms
Ursus	Distracting, Protected Actuators; Cramped Cockpit
Ursus II	Distracting, Protected Actuators
Uziel	Cowl; Bad Reputation, Exposed Actuators
Valiant	Improved Targeting (Short), Protected Actuators; Weak Head Armor (1)
Valkyrie	Improved Communications
Vanquisher	Stable; Bad Reputation, No/Minimal Arms
Venom	Nimble Jumper; Difficult Ejection
Verfolger	Hyper-Extending Actuators; Difficult To Maintain
Victor	Rugged (1)
Viking	Easy To Maintain, Multi-Trac; No/Minimal Arms
Vindicator	Rugged (1); Difficult Ejection, No Torso Twist
Viper (Black Python)	Improve Targeting (Short)
Vixen (Incubus)	Jettison-Capable Weapon (Large Pulse Laser)
Volkh	Non-Standard Parts
Von Rohrs (Hebi)	Bad Reputation
Vulcan	Narrow/Low Profile
Vulture (Mad Dog)	Improved Targeting (Medium)
Wakazashi	Difficult To Maintain
War Dog	Accurate Weapon (OS SSRM 2s), Fast Reload (OS SSRM 2s); No Torso Twist
Warhammer	Rugged (2), Searchlight, Stable, Ubiquitous
Warhammer IIC	Searchlight, Stable
Warlord	Easy To Maintain
Wasp	Easy To Maintain, Extended Torso Twist, Ubiquitous
Watchman	Easy To Maintain, Easy To Pilot, Rugged (1)
Werewolf	Non-Standard Parts
White Flame	Directional Torso Mount (LT/RT); Bad Reputation, Exposed Actuators
Whitworth	Rugged (1); Weak Legs
Wight	Exposed Actuators, Weak Legs
Wildfire	Non-Standard Parts, Prototype
Wolf Trap (Tora)	Bad Reputation
Wolfhound	Easy To Maintain, Good Reputation (1)
Wolverine	Command 'Mech, Extended Torso Twist, Improved Communications, Jettison-Capable Weapon (AC/5), Protected Actuators, Ubiquitous; Cramped Cockpit
Wolverine II	Command 'Mech, Improved Communications, Protected Actuators
Woodsman	Easy To Maintain
Wraith	Ubiquitous; Difficult To Maintain
Wyvern	Rugged (1)
Wyvern IIC	Protected Actuators
Xanthos	Improved Life Support
Yao Lien	Non-Standard Parts
Yeoman	No/Minimal Arms
Ymir	Stable
Yu Huang	Command 'Mech, Good Reputation (1)
Zeus	Barrel Fist (RA), Easy To Maintain

WEAPONS AND EQUIPMENT

BattleMechs use a wide variety of weapon systems, ranging from autocannons to lasers to hatchets to missiles, as well as specialty electronics designed to hinder the enemy and assist allies on the battlefield.

The in-flux nature of the *BattleTech* universe makes a canonical list of available weapons and equipment difficult, since new items are continually introduced as the timeline progresses. The *BattleMech Manual* presents all the most common items as of the in-universe year 3145 that are available to BattleMechs and serve a purpose in 'Mech versus 'Mech combat. The Weapons and Equipment Tables, beginning on page 120, provide a simplified summary of each item.

BASIC INFORMATION

All items in this chapter are assumed to obey the following rules unless specifically stated otherwise:

Ammunition: If the item is a weapon requiring ammunition, a critical hit to its ammunition bin deals the weapon's damage times the number of shots left in that bin as an internal explosion to the affected location (see *Ammunition*, under *Critical Hit Effects*, p. 47).

If an ammunition type is stated as non-explosive, a critical hit to a bin containing that ammo still disables the bin for the rest of the game.

If a bin is empty and takes a critical hit, the slot still takes the critical hit, but but no ammunition explosion or effects occur.

Artillery & Mines: With the exception of Arrow IV Homing Missiles (see p. 97), these weapons are dealt with separately, under *Battlefield Support* (see p. 75).

Critical Hit Effects: A critical hit (see p. 45) to any slot of an item destroys that item. Critical hits to intact slots of an already-destroyed item are still absorbed, but have no further effect.

Heat Effects: If the item is a weapon requiring ammunition, overheating ammunition bins risk exploding. The 'Mech suffers the weapon's listed damage times the number of shots remaining unless the ammo is non-explosive (or the bin is empty). See *Ammunition*, under *Effects of Heat*, page 52.

CHAPTER CONTENTS

Items in this chapter are ordered as follows:

WEAPON TYPES

Each weapon uses a series of abbreviations, given below, to detail any special effects it may have. Some types have no effect in 'Mech-only combat, but are still listed here in order to maintain compatibility across the wider *BattleTech* ruleset.

Weapons often feature multiple types at once. Additionally, some weapons (such as hyper-assault Gauss rifles) may take on different types at different times.

- **AE: Area-Effect.** AE attacks damage every target in their area of effect (this can be multiple hexes)—terrain, buildings, even friendly 'Mechs. In *BattleMech Manual* play, when determining AE damage to a building, double the normal damage and apply this once to the building's CF. Against 'Mechs, every 'Mech in the area of effect is damaged, regardless of the level it is at or if it is inside a building (i.e. no building reduces AE damage to 'Mechs inside it), unless the 'Mech is underwater.
- **AI: Anti-Infantry.** This has no additional effect versus 'Mechs.
- **C: Cluster.** Each shot in a cluster attack contains multiple projectiles, not all of which may hit the target. Cluster attacks use the Cluster Hits Table (see p. 33) to resolve their damage.
- The Damage Value for all cluster attacks has two parts. For example, a silver bullet Gauss rifle has a Damage Value of C1/15.
- The number to the right is the attack's weapon size. If a cluster attack hits, the attacker rolls 2D6 and consults the Cluster Hits Table. Weapon size tells you which column on the table to use: cross-reference this with the roll result. The result is the number of projectiles from the attack that hit the target (e.g. rolling a 7 on the Cluster Hits Table for an attack with a weapon size of 15 means that 9 projectiles hit the target).
- The number to the left is the attack's grouping size. This is how much damage caused by the attack is grouped together into separate Damage Value groupings. This ranges from 1 (i.e. every point of damage is its own Damage Value grouping) to 5 (every 5 points of damage is its own Damage Value grouping).
- Multiply the number of projectiles that hit by the damage per projectile (always 1 damage each unless stated otherwise; Missile weapons state the damage each missile deals). Split the resulting damage total into Damage Value groupings equal to the attack's grouping size; if at any point there's not enough damage to make a full damage grouping, form a single undersized grouping with that damage.
- The attacker rolls a separate hit location for every grouping. For example, for all standard SRM launchers (C2), every 2 points of Damage Value dealt is a separate hit with its own hit location roll. For all ATM, LRM, and MRM launchers (regardless of the launcher size or damage per projectile), the grouping size is 5 (C5): every 5 points of Damage Value dealt is a separate hit with its own hit location roll.
- Each grouping that hits only ever counts as one hit. For example, if a group of 5 LRMs strikes a 'Mech's head, that's one hit to the head, not five.

- **DB: Direct-Fire Ballistic.** These weapons (except machine guns) can use a targeting computer when making attacks (see *Targeting Computer*, p. 114).
- **DE: Direct-Fire Energy.** These weapon types (except flamers) can use a targeting computer when making attacks (see *Targeting Computer*, p. 114).
- **E: Electronics.**
- **F: Flak.** Apply a –2 Target Number modifier to attacks made by a flak weapon against dropping 'Mechs (see p. 79). This is cumulative with all other modifiers provided by the weapon or its ammunition unless specified otherwise.
- **H: Heat-Causing.** This weapon may inflict additional heat, damage, or both (see also *Outside Heat Sources* in the *Heat* section, p. 50, for details).
- **M: Missile.** A target's anti-missile systems may reduce the number of missiles from a missile attack (see *Anti-Missile Systems*, p. 118). Most missiles are also Cluster weapons (see above).
- **OS: One-Shot.** One-shot weapons can only be fired once per game, and may not carry any additional ammunition. The single shot carried by an OS launcher may be of any munition type available to that launcher type. Despite using ammunition, OS weapons are not explosive unless specified as such.
- **P: Pulse.** Pulse weapons using a targeting computer receive the computer's Target Number bonus, but not when making any kind of Aimed Shot (see *Targeting Computer*, p. 114).
- **PB: Point-Blank.** Point-blank weapons can only be used against targets in the same or adjacent hexes.
- **R: Rapid-Fire.** A rapid-fire weapon may optionally fire multiple shots at a single target as its attack. The number after "R" in the Damage column of the appropriate Weapons and Equipment tables indicates the maximum number of shots that can be made in that attack (for example, an R2 weapon may fire one or two shots as its attack, while an R6 weapon may fire anywhere from one to six shots as its attack).

  When firing multiple shots in a single attack (i.e. "rapid-firing"), the attack is considered a Cluster weapon. It consumes ammo and creates heat for each shot fired; whether any hit is irrelevant. On a successful attack, the attacker rolls 2D6 and compares the result to the appropriate column of the Cluster Hits Table (see p. 33). The Weapon Size for the attack is the number of shots fired by the weapon that turn, and so this can change from turn to turn (for example, a Rotary AC/5 rapid-firing four shots uses the "4" column, but would use the "6" column if rapid-firing six shots, whereas a rapid-firing Ultra AC would always use the "2" column). The 2D6 result is the number of shots that strike the target.

  Once the controller determines the number of shots that hit, a different hit location roll is made for each shot. Each shot deals damage equal to the weapon's Damage Value.

  Each time a rapid-fire weapon fires more than one shot in a single turn, it may jam. This is determined by the attack's to-hit roll, which is made even if the attack would automatically hit. When firing two or three shots, a jam occurs on an attack roll of 2. If firing four to five shots, a jam occurs on a to-hit roll of 3 or less. If firing six to seven shots, a jam occurs on a to-hit roll of 4 or less, and so on. If the weapon jams, it is useless for the rest of the game (see *Rotary Autocannon*, p. 98, for the exception); the shots are still fired, however, and can still hit the target as normal.
- **S: Switchable Ammo.** This weapon may employ one or more types of special munitions (see p. 106).
- **V: Variable Damage.** The Damage Value of weapons with variable damage declines at one or more range brackets. Such weapons always have three Damage Values: their values at short, medium, and long range (e.g. a weapon with Damage Values of V25/20/10 deals 25 damage points at short range, 20 at medium, and 10 at long).
- **X: Explosive.** Item explodes when damaged; see the individual item's description for the exact details.

ARTILLERY

ARROW IV HOMING MISSILES (SIMPLIFIED)

"Agincourt II: Electric Boogaloo."

An Arrow IV missile can be fired indirectly (similarly to an Artillery Support attack), or directly:

- **Indirect (only if target is more than 17 hexes away):** During any turn's Weapon Attack Phase, the player must announce that an Arrow IV Homing Missile is incoming and secretly write down the target hex number (make sure to mark off the ammo and allocate heat for the firing 'Mech). The Arrow IV attack arrives during the Weapon Attack Phase of the *following* turn.
- **Direct (only if target is 17 or less hexes away):** A direct-fire attack is made during the Weapon Attack Phase and has no time in flight: it arrives the same phase it is launched.

On the turn the homing missile arrives (or the turn it is fired, if using Direct fire), it may attack any 'Mech successfully designated by friendly TAG within 8 hexes of the chosen hex. If there are multiple such 'Mechs, the firer chooses which to attack. If there are no such 'Mechs when the missile arrives, it explodes harmlessly over the battlefield. (Undirected or misdirected missiles do not scatter.)

The firer then rolls 2D6. On a result of 4 or higher, the missile strikes the target, dealing 20 points of damage. This is treated as a hit from a Direct-Fire Ballistic weapon (i.e. in this instance it is *not* an AE type weapon), resolved against the 'Mech's facing relative to the 'Mech that fired the missile. On a result of 3 or less, however, the missile hits the hex occupied by the designated target instead, and inflicts 5 points of area-effect damage to all targets in the hex.

A friendly TAG may designate a target for any number of Arrow IV Homing Missiles per round from any number of attackers, with only one attack roll required to designate the target. However, a TAG-equipped 'Mech may not designate multiple targets for Arrow IV in a turn, even if it is equipped with multiple TAG units. If a 'Mech with an on-board Arrow IV launcher using homing missiles also mounts TAG, the 'Mech may designate a target and fire its homing missiles against it in the same turn.

An Arrow IV missile is completely unaffected by anti-missile systems of any kind. Nemesis Narc pods can result in an Arrow IV missile attacking a friendly target; see that item's description (p. 108) for details.

Tech Base: Clan and Inner Sphere

AUTOCANNONS

"Autocannon" (often abbreviated as "AC"), is a general term for modern 'Mech-scale cannons, which have a wide variety of calibers, firing speeds, and munition types. Some fire a single massive round, others are shotgun-like weapons, and still others are high-speed Gatling-like cannons that spew out a large number of rounds in a short span of time.

Special Munitions: Some autocannons are able to employ special autocannon munitions, as detailed on page 106. Whether or not such munitions are available is noted for each autocannon type. Note that tech base restrictions still apply: a weapon may only select those munitions available to its tech base.

AUTOCANNON

"This is my BOOMSTICK!"
Special Munitions: Yes
Technology Base: Clan or Inner Sphere
Type: DB, S

LB-X AUTOCANNON (LB-X)

"Nothin' says lovin' like a face full of 'Mech-scale buckshot."
Special Munitions: Yes (cluster munitions only)
Technology Base: Clan or Inner Sphere
Type: DB, S

LIGHT AUTOCANNON (LAC)

"Lighter and sleeker, but no less effective. Well, maybe a bit."
Special Munitions: Yes
Technology Base: Inner Sphere
Type: DB, S

PROTOMECH AUTOCANNON (PAC)

"Not just for Protos anymore."
Special Munitions: Yes
Technology Base: Clan
Type: DB, S

ROTARY AUTOCANNON (RAC)

"It costs 72,000 C-Bills to fire this marvel of Davion engineering for 10 seconds."

Game Rules: Rapid-fire, six shots maximum. Though a rapid-fire weapon, a RAC is an exception in that it can be unjammed during the battle.

Unjamming the weapon is started by declaring that action during the End Phase of a turn. On the next turn, the 'Mech unjamming its RAC must stand still or only use Walking MP, and cannot make weapon attacks, including spotting. At the end of the Weapon Attack Phase, the 'Mech's controller makes a Gunnery Skill Roll with a +3 Target Number modifier. Success means that the

weapon can be used again after that turn, while a failed roll means that the jam is not cleared, though the player may attempt to clear the weapon in a subsequent turn. Any jammed RAC may be subject to a clearing attempt, though each individual weapon may only be the subject of a single clearing attempt per turn: a separate Gunnery Skill Roll is made for each attempt.

Critical Hit: If a rotary autocannon suffers a critical hit while jammed, an ammo explosion results with a Damage Value equal to a single shot for the weapon.

Special Munitions: No
Technology Base: Clan or Inner Sphere
Type: DB, R

ULTRA AUTOCANNON (UAC)

"Master Technician, I'd like to speak with you about my AC's firing circuitry..."

Game Rules: Rapid-fire, two shots maximum.
Special Munitions: No
Technology Base: Clan or Inner Sphere
Type: DB, R

FLAMERS

Flamers are a catch-all term for the wide variety of flamethrowers in use by the armed forces of the thirty-first century. Some tap into the 'Mech's own reactor for the ravening heat necessary, while others require ammunition for their devastating properties to work.

Ammunition: By default, flamers do not require ammunition. Those that do are noted as such.

External Heat: Every time a flamer is fired, before the attack roll is made, the player may announce they are applying heat to the target, instead of the weapon's normal Damage Value. The amount of heat applied is the same as the weapon's Damage Value, unless otherwise noted.

Enhanced Flamers (Optional): If using this optional rule, whenever a flamer of any kind strikes a target that tracks heat (such as a 'Mech), apply both the flamer's heat and damage to the target.

Type: AI, DE, H

FLAMER

"Nice national park you got here. Be a shame if something were to happen to it."

Technology Base: Clan or Inner Sphere

ER FLAMER

"Less spread on this one, but I still wouldn't call it 'friendly fire.'"

External Heat: The ER flamer can deal the equivalent of half its damage, rounded down to a minimum of 1, as heat.

Technology Base: Clan or Inner Sphere

HEAVY FLAMER

"Remember, MechWarriors: only YOU can prevent infantry."

Ammunition: A heavy flamer requires ammunition. A critical hit to a heavy flamer ammunition slot causes the ammunition to explode for 5 damage times the number of shots remaining.

Critical Hit: Heavy flamer ammo explodes for 5 points per shot.
Technology Base: Clan or Inner Sphere

GAUSS RIFLES

A Gauss rifle uses a magnetized series of coils or rails, rather than chemicals or powder, to accelerate a ferrous slug to incredibly long ranges with almost negligible heat.

Ammunition: All Gauss weapon ammunition is non-explosive.

Critical Hit: A critical hit on a Gauss rifle causes the weapon to explode as if an ammunition critical slot was hit, with the damage each weapon inflicts from the explosion listed in its profile. Only mark off the critical slot(s) that was hit. After this first explosion, further critical hits to the weapon will not cause another explosion.

GAUSS RIFLE

"This machine kills Clanners."

Critical Hit: A critical hit on a Gauss rifle results in a 20-point ammunition explosion.

Technology Base: Clan or Inner Sphere
Type: DB, X

ANTI-PERSONNEL GAUSS RIFLE

"For when a machine gun just won't do."

Critical Hit: A critical hit on an anti-personnel Gauss rifle results in a 3-point ammunition explosion.

Technology Base: Clan
Type: AI, DB, X

HEAVY GAUSS RIFLE

"Bigger is *better."*

Game Rules: A 'Mech expending MP and firing a heavy Gauss rifle in the same turn must make a Piloting Skill Roll (see p. 53) at the end of the Weapon Attack Phase, with the following modifiers based on the 'Mech's weight class: Assault –1, Heavy 0, Medium +1, Light +2.

Unlike other PSR effects, this is not cumulative; if a 'Mech fires two heavy Gauss rifles in the same turn, two rolls would be required, but only the single modifier would apply to each roll.

Critical Hit: A critical hit on a heavy Gauss rifle results in a 25-point ammunition explosion. If the rifle is split between the center torso and side torso, CASE located in the side torso that contains the heavy Gauss rifle stops any transfer of damage to the center torso; if the rifle is struck in the center torso, however, a 25-point ammunition explosion applies to the center torso.

Technology Base: Inner Sphere
Type: DB, V, X

HYPER-ASSAULT GAUSS RIFLE

"You had me at 'hail of Gauss slugs.'"

Game Rules: When a hyper-assault Gauss rifle, or HAG, hits its target, roll on the appropriate Cluster Hits column, but apply a +2 modifier to this roll at short range and a –2 modifier at long range. Treat a result of less than 2 as 2, and a result of greater than 12 as 12.

When firing a HAG, its controller can choose to make a Flak attack. This means the attack gains the Flak type, in addition to the weapon's normal types, and cannot benefit from a targeting computer. Apply a –1 Target Number modifier to such attacks, in addition to the standard –2 Flak modifier (so –3 total).

Critical Hit: A critical hit on a hyper-assault Gauss rifle results in an ammunition explosion, with the HAG-20 delivering a 10-point explosion, the HAG-30 a 15-point explosion, and the HAG-40 a 20-point explosion.

Technology Base: Clan
Type: C, DB, X

IMPROVED HEAVY GAUSS RIFLE

"Drag chute optional."

Game Rules: A 'Mech expending MP and firing an improved heavy Gauss rifle in the same turn must make a Piloting Skill Roll (see p. 53) at the end of the Weapon Attack Phase, with the following modifiers based on the 'Mech's weight class: Assault –1, Heavy 0, Medium +1, Light +2. Unlike other PSR effects, this is not cumulative; if a 'Mech fires two of these weapons in the same turn, two rolls would be required, but only the single modifier would apply to each roll.

Critical Hit: A critical hit on an improved heavy Gauss rifle results in a 30-point ammunition explosion. If the rifle is split between the center torso and side torso, CASE located in the side torso that contains the rifle stops any transfer of damage to the center torso; if the rifle is struck in the center torso, however, a 30-point ammunition explosion applies to the center torso.

Technology Base: Inner Sphere
Type: DB, X

LIGHT GAUSS RIFLE

"This is undoubtedly the greatest weapon the Inner Sphere has ever seen." – Chief of FWLM Procurement

Critical Hit: A critical hit on a light Gauss rifle results in a 16-point ammunition explosion.

Technology Base: Inner Sphere
Type: DB, X

MAGSHOT GAUSS RIFLE

"No utility, no problem!"

Critical Hit: A critical hit on a Magshot Gauss rifle results in a 3-point ammunition explosion.

Technology Base: Inner Sphere
Type: DB, X

SILVER BULLET GAUSS RIFLE

"Nothing says 'Get out of my airspace!' like hypersonic buckshot."

Game Rules: Attack rolls for a silver bullet Gauss rifle apply a –1 Target Number modifier.

Critical Hit: A critical hit on a silver bullet Gauss rifle results in a 20-point ammunition explosion.

Technology Base: Inner Sphere
Type: C, DB, F, X

LASERS

The laser (its name originates from the ancient acronym "Light Amplification by Stimulated Emission of Radiation") is the most basic of modern battlefield energy weapons. Designed to deliver a concentrated burst of extreme heat to a small area, military-grade lasers can gouge through military-grade armors in a fraction of a second.

Ammunition: By default, lasers do not require ammunition. Those that do are noted as such.

LASER

"Red or blue: it's still half the battle."

Technology Base: Clan or Inner Sphere
Type: DE

BINARY LASER (BLAZER) CANNON

"So big. So impractical. I'm surprised it's not on every second Lyran 'Mech."

Technology Base: Inner Sphere
Type: DE

CHEMICAL LASER

"Why are there 'Do Not Eat' labels on the ammunition?"

Ammunition: Chemical lasers require ammunition, which follows all normal ammunition rules for critical hits and heat.

Technology Base: Clan
Type: DE

EXTENDED-RANGE (ER) LASER

"Reach out and touch someone."

Technology Base: Clan or Inner Sphere
Type: DE

EXTENDED-RANGE (ER) PULSE LASER

"Shoot farther, not smarter."

Game Rules: Attack rolls for ER pulse lasers apply a –1 Target Number modifier.

Technology Base: Clan

Type: AI (ER small pulse laser only), P

HEAVY LASER

"The closest thing to a laser freight train."

Game Rules: Attack rolls for heavy lasers apply a +1 Target Number modifier.

Technology Base: Clan

Type: DE

IMPROVED HEAVY LASER

"So… they replaced the accuracy problems with high explosives?"

Game Rules: Improved heavy lasers do not suffer the usual +1 Target Number modifier for standard heavy lasers. However, treat a critical hit to an improved heavy laser as an ammunition explosion, with the small improved heavy laser causing a 3-point explosion, the medium causing a 5-point explosion, and the large causing an 8-point explosion.

Technology Base: Clan

Type: DE, X

PULSE LASER

"Hey! Who broke my large pulse laser's TarComp interface?"

Game Rules: Attack rolls for pulse lasers apply a –2 Target Number modifier.

Technology Base: Clan or Inner Sphere

Type: AI (small pulse laser and micro pulse laser only), P

RE-ENGINEERED (RE) LASER

"The laser so nice they engineered it twice."

Game Rules: Attack rolls for re-engineered lasers apply a –1 Target Number modifier. RE lasers also treat each armor circle provided by hardened, ferro-lamellor, and laser-reflective armors as 1 point of standard armor. Versus RE lasers, these armors provide no special protective bonuses of any kind.

Technology Base: Inner Sphere

Type: P

VARIABLE-SPEED PULSE (VSP) LASER

"Note: Your laser's stutter is intentional."

Game Rules: Just as the Damage Value of variable speed pulse lasers changed based on the range bracket the weapon is fired in, attack rolls made with such weapons benefit from various modifiers based on that range:

- Short range: –3 Target Number modifier
- Medium range: –2 Target Number modifier
- Long range: –1 Target Number modifier

Technology Base: Inner Sphere

Type: AI, P, V

X-PULSE LASER

"The 'X' makes it sound cool."

Game Rules: Attack rolls for X-pulse lasers apply a –2 Target Number modifier.

Technology Base: Inner Sphere

Type: AI (small X-pulse laser only), P

M-POD

"Shocking shrapnel shower shreds Savage Sorenson's Solaris streak!"

The short range and one-shot capability of this Solaris-designed weapon has prevented it from being widely used in a battlefield capacity.

Game Rules: Attacks with M-Pods apply a –1 Target Number modifier and the following range: 1 hex for short, 2 for medium, 3 for long. Use a Weapon Size of "15" on the Cluster Hits Table (see p. 33) at Short range, the "10" column at Medium range, and the "5" column at Long range. An M-Pod may attack targets in the same hex as the attacker.

Critical Hit: Unexpended M-Pods that take a critical hit explode for 5 points of damage as an ammunition explosion. Expended M-Pods can still be affected by a critical hit in the same way as empty ammo bins.

Technology Base: Inner Sphere

Type: C, OS, V, X

MACHINE GUNS

The machine gun (MG) has been favored as the quintessential anti-infantry weapon since the first crude models appeared in the nineteenth century.

Technology Base: Clan or Inner Sphere

Rapid-Fire Mode (Optional): Using this option, any machine gun type may be modified to fire at a much higher rate than normal, chewing up huge amounts of ammunition but significantly increasing the weapon's damage potential. The damage and heat when rapid-firing depends on the type of machine gun used:

- For light machine guns, the damage and heat is 1D6–1 (to a minimum of 1).
- For standard machine guns, the damage and heat is 1D6.
- For heavy machine guns, the damage and heat is 1D6+1.

Each rapid-fire burst uses a number of rounds equal to the damage it inflicted x 3.

The controlling player must mark any machine guns to be used in rapid-fire mode on the record sheet at the beginning of the game, and the weapons can only rapid-fired during the game. Machine guns cannot be fired in rapid-fire mode when part of a machine gun array (see p. 102); to use rapid-fire mode, the array must be shut off before the game begins, and left off throughout.

MACHINE GUN (MG)

"Damn, he's 91 meters out."

Type: AI, DB

HEAVY MACHINE GUN (HMG)

"We decided to replace that pesky gunpowder with a larger bullet."

Type: AI, DB

LIGHT MACHINE GUN (LMG)

"How does a 'light' machine gun weigh 500 kilos?"

Type: AI, DB

MACHINE GUN ARRAY (MGA)

"You see, it's kind of like a gatling gun made out of gatling guns…"

Game Rules: When a machine gun array hits a target, roll on the Cluster Hits Table to determine how many machine guns in the array hit. The Weapon Size used is the number of machine guns in the array (e.g., if two machine guns, roll on the "2" column, if 4, use the "4" column). The roll result is the number of hits that struck the target, with each hit's damage equal to the Damage Value of the machine gun type in the array.

Once the number of hits is determined, roll once on the appropriate Hit Location Table and apply and resolve all hits to that location one at a time. This means that if an MGA 4 successfully hits its target, the subsequent roll on the Cluster Hits Table indicates that three machine guns hit, and the hit location is determined to be the target 'Mech's head, then the weapon causes 3 points of MechWarrior damage and forces three Consciousness Rolls.

Like heat sinks, an MGA can be turned off during the End Phase of a turn. In any subsequent turn, the grouped machine guns can be fired individually. The MGA can be turned back on during the End Phase of any turn.

MISSILE LAUNCHERS

Ammo Explosions: A critical hit to a missile ammunition bin causes damage equal to the launcher size times the number of remaining shots times the damage inflicted per missile.

OS-Type launchers do not explode when hit.

Advanced Fire Control: Some launchers may utilize advanced fire control systems, such as Artemis. Those launchers that may do so will be noted, along with the type of fire control available. Note that tech base restrictions still apply; for example, a launcher type listed as being compatible with Artemis V still needs to be a Clan version of that launcher.

Indirect Fire: Some launchers may perform an indirect attack (see p. 30). Those that can will be noted.

Special Munitions: Some launchers are able to employ special missile munitions, as detailed on page 106. Those that can will be noted. Note that tech base restrictions still apply; a launcher may only select those munitions available to its tech base.

> *If a bin of SRM-6 ammunition that had already fired three shots was critically hit, then the total damage would be 6 (launcher size) x 12 (number of shots remaining in the bin) x 2 (damage per missile) = 144 total damage.*

ADVANCED TACTICAL MISSILE (ATM) LAUNCHER

"For the Clan Warrior who thinks LRMs don't have enough gimmicks."

Advanced Fire Control: ATMs have an integral Artemis IV system. This integral Artemis performs exactly as its standard counterpart (i.e., adds +2 to its Cluster Hits Table roll; shots fired into or through an enemy ECM field lose this bonus), and requires no extra critical slots or tonnage.

Indirect Fire: No

Special Munitions: ATMs may only use Standard, Extended Ranged (ER), and High Explosive (HE) ATM munitions. These have no special rules, only varying range and damage values, and so all relevant information is found on the Clan Weapons Table (see p. 125). All three munition types benefit from the launcher's Artemis effect. Each requires its own ammo bin.

Regardless of the munition type used, damage from ATM hits is divided into 5-point damage groupings.

Technology Base: Clan

Type: C, M, S

ENHANCED LRM LAUNCHER (NLRM)

"You fool! You thought you had me cornered, but I have a smaller minimum range! And… backup weapons."

Advanced Fire Control: Yes (Artemis IV; see p. 110)

Indirect Fire: Yes

Special Munitions: Yes

Technology Base: Inner Sphere

Type: C, M, S

EXTENDED LRM LAUNCHER (ELRM)

"A kilometer's worth of pain. Just watch out for that minimum arming distance."

Game Rules: When attacking targets within their minimum range (10 hexes or less), ELRMs must use the Cluster Hits column for half their rated rack size (rounding up). For example, an ELRM-15 that hits within its minimum range would roll on the "8" column for Cluster Hits, rather than the 15 column (15 ÷ 2 = 7.5, rounded up to 8).

Advanced Fire Control: No
Indirect Fire: Yes
Special Munitions: No
Technology Base: Inner Sphere
Type: C, M

IMPROVED ONE SHOT (I-OS) MISSILE LAUNCHER

"After decades of research, we have finally discovered muzzle-loading LRMs." – LAW R&D

Game Rules: I-OS launchers can consist of any size MML, MRM, SRM, SRT, LRM, LRT, NLRM, or NLRT launcher, and use the same statistics as the launcher chosen, except they are also OS weapons (see p. 97).

A one-shot MML may have for its single shot any one munition type available to MML (not both types).

Advanced Fire Control: As per original launcher type
Indirect Fire: As per original launcher type
Special Munitions: As per original launcher type
Technology Base: Clan or Inner Sphere
Type: As per original launcher type, plus OS

LONG RANGE MISSILE LAUNCHER (LRM)

"Locked, stocked, and sitting behind a nice tough hill."

Advanced Fire Control: Yes (Artemis IV and Artemis V; see p. 110)
Indirect Fire: Yes
Special Munitions: Yes
Technology Base: Clan or Inner Sphere
Type: C, M, S

MEDIUM RANGE MISSILE (MRM) LAUNCHER

"One giant leap backward. It's like the Succession Wars in missile form."

Game Rules: Attack rolls with MRMs apply a +1 Target Number modifier.

Advanced Fire Control: Yes (Apollo FCS; see p. 113)
Indirect Fire: No
Special Munitions: No
Technology Base: Inner Sphere
Type: C, M

MULTI-MISSILE LAUNCHER (MML)

"I've got Tandem-Charge SRMs, Infernos, Swarm-I, and Semi-Guided. Give me a target, and I'll frag it."

Game Rules: The multi-missile launcher can fire SRMs or LRMs, and each missile type retains its characteristic damage and ranges. Note that an MML-5 cannot draw on ammunition intended for a separate LRM-5 launcher.

Advanced Fire Control: Yes (Artemis IV; see p. 110)
Indirect Fire: Yes (LRMs only)
Special Munitions: Yes, as per missile type (SRM or LRM)
Technology Base: Inner Sphere
Type: C, M, S

ONE-SHOT (OS) MISSILE LAUNCHER

"The derringer of 'Mech weapons."

Game Rules: OS launchers can be any size MML, MRM, SRM, SRT, LRM, LRT, NLRM, or NLRT launcher, and use the same statistics as the launcher chosen, except they are also OS weapons (see p. 97).

A one-shot MML may have for its single shot any one munition type available to MML (not both types).

Advanced Fire Control: As per original launcher type
Indirect Fire: As per original launcher type
Special Munitions: As per original launcher type
Technology Base: Clan or Inner Sphere
Type: As per original launcher type, plus OS

ROCKET LAUNCHER (RL)

"Surprisingly ineffective as a jump jet aid."

Game Rules: Attack rolls with rocket launchers apply a +1 Target Number modifier.

Advanced Fire Control: No
Indirect Fire: No
Special Munitions: No
Technology Base: Inner Sphere
Type: C, M, OS

SHORT RANGE MISSILE (SRM) LAUNCHER

"My Arctic Wolf *is the purest expression of "SRM is love, SRM is life". It needs more SRMs, though."*

Advanced Fire Control: Yes (Artemis IV and Artemis V; see p. 110)
Indirect Fire: No
Special Munitions: Yes
Technology Base: Clan or Inner Sphere
Type: C, M, S

STREAK LRM (SLRM) LAUNCHER

"As if the Clans needed an option to hit me with even more *missiles."*

Game Rules: Make an attack roll as normal. If successful, all missiles from the launcher automatically hit (no roll on the Cluster Hits Table is required); the player rolls to determine hit locations as per the regular cluster rules. If the roll fails, the launcher does not fire: no ammunition is used and no heat is generated. However, the attempted attack still counts as an attack for purposes such as physical attacks; for example, an attack made with a leg-mounted Streak launcher that does not hit still precludes making a kick with that leg that turn.

An attacker firing Streak missiles into or through a hostile Angel ECM bubble (see p. 113) must roll on the Cluster Hits Table (see p. 33) after a hit as though the launcher were a standard (non-Streak) model. Non-Angel ECM has no effect.

Advanced Fire Control: No
Indirect Fire: Yes
Special Munitions: No
Technology Base: Clan
Type: C, M

STREAK SRM (SSRM) LAUNCHER

"Locked on target!"

Game Rules: As per Streak LRMs (see above)
Advanced Fire Control: No
Indirect Fire: No
Special Munitions: No
Technology Base: Clan or Inner Sphere
Type: C, M

THUNDERBOLT MISSILE LAUNCHER

"The biggest bang for your buck since the Arrow IV."

Game Rules: Thunderbolt missiles are not cluster weapons, but deliver their damage to a single location instead. A Thunderbolt missile strike that occurs within the weapon's minimum range delivers only half the missile's rated damage, rounded down.

Anti-missile systems may engage an incoming Thunderbolt missile, using the standard rules for AMS versus a single missile (see p. 118).

Advanced Fire Control: No
Indirect Fire: Yes
Special Munitions: No
Technology Base: Inner Sphere
Type: M

TORPEDO (SRT, LRT, NLRT) LAUNCHER

"Flood the tubes! I've got an Atlas *to sink!"*

Game Rules: Torpedoes are both a launcher type and a munition type. Torpedo launchers can be any standard 'Mech-sized SRM, LRM, or NLRM launcher, and use the same statistics as the launcher type chosen.

Torpedoes may only be fired from launchers submerged in water of Depth 1 or deeper. The target must be at least partially submerged, and the attacker must trace LOS to the target entirely through water hexes of Depth 1 or deeper. If a torpedo hits a location that is not submerged, reroll the location.

See *Attacking Underwater*, page 64, for more details.

Advanced Fire Control: Yes (Artemis IV and Artemis V; see p. 110)
Indirect Fire: Yes (LRT and NLRT only)
Special Munitions: Artemis-equipped torpedoes only
Technology Base: Clan or Inner Sphere
Type: As per original launcher type

NARC MISSILE BEACONS

Rather than lobbing missiles, a Narc beacon fires large grappling munitions called "pods". The most common is the homing pod, which improves the accuracy of those missiles equipped with properly attenuated sensors. However, the more advanced iNarc system offers several specialty pod types, providing a user with a variety of tricks.

Buildings: Narc pods cannot be fired into or inside buildings, but may be fired at them.

Special Munitions: See page 107.
Type: M, S

NARC MISSILE BEACON

"I call this one the 'Tattle-tale.'"

Game Rules: If a Narc missile beacon attack hits, a Narc pod is attached to the target 'Mech in the location struck, and are only destroyed if the location they are attached to is destroyed. In all following phases, any 'Mech attacking the target with Narc-equipped missiles (see p. 104) adds +2 to the result of their Cluster Hits Table roll. Additionally, once a Narc pod is attached to a target, all Narc-equipped missiles may be fired indirectly at the target without a spotter; all other standard modifiers for indirect fire apply (see p. 30). If used in this manner, the Narc-equipped missiles lose their +2 Cluster Hits Table modifier.

Narc homing pods do not function as long as they are within the area of effect of an active enemy ECM suite (see *ECM Suites*, p. 112), but the beacon itself is unaffected by ECM.

Critical Hit: Narc ammunition bins that suffer a critical hit explode for 2 points per pod (unless they are Explosive Pods; see p. 108).

Technology Base: Clan or Inner Sphere

INARC MISSILE BEACON

"More pods, more problems."

Game Rules: The iNarc functions as a standard Narc missile beacon. However, iNarc pods are larger than standard Narc pods. As such, rather than making a physical attack in the Physical Attack Phase, a 'Mech may attempt to brush off iNarc pods which have been attached to it.

The 'Mech's controller can make up to two attempts to brush off pods each turn, one for each arm. A Piloting Skill Roll (see p. 53) is required for each attempt, with a +4 Target Number modifier as well as any modifiers normally applied to a punching attack (see *Punch Attacks*, p. 38). Arms that fired a weapon during the Weapon Attack Phase in the same turn are ineligible, as are arms mounting any physical attack weapon. A successful roll destroys one pod, chosen by the 'Mech's controller.

If the Piloting Skill Roll is unsuccessful, the 'Mech must take punching damage from the appropriate arm (rather than falling from the failed PSR). The pod(s) stay attached. Roll 1D6 and consult the Front column of the Punch Location Table to determine the location of the damage. If the player declares that their 'Mech will make two attempts, both must be resolved, even if the first is successful (this could result in the first attempt being successful, yet the second attempt failing and still damaging the 'Mech).

Critical Hit: iNarc ammunition bins that suffer a critical hit explode for 3 points per pod (unless they are Explosive Pods; see p. 108).

Technology Base: Inner Sphere

PARTICLE PROJECTOR CANNONS

The particle projector cannon (PPC for short) is one of the most powerful non-ballistic weapons ever devised for the modern battlefield. Consisting of a magnetic accelerator, firing high-energy proton or ion bolts, PPCs have been used for centuries to flay armor through kinetic and thermal damage.

PPC

"'Azure whiplash?' No, too corny. 'Man-made lightning!' That's the ticket!" – Donal marketing exec

Technology Base: Clan or Inner Sphere
Type: DE

ER PPC

"The hand of Zeus."

Technology Base: Clan or Inner Sphere
Type: DE

HEAVY PPC

"This is the Lord's Light 3, the most powerful PPC in the Inner Sphere. It's my very favorite gun. I call her Doris."

Technology Base: Inner Sphere
Type: DE

LIGHT PPC

"Lighter package, same great range."

Technology Base: Inner Sphere
Type: DE

SNUB-NOSE PPC

"The thinking man's PPC."

Technology Base: Inner Sphere
Type: DE, V

PPC CAPACITOR

"Charge it!"

Game Rules: Instead of firing a PPC as normal, a 'Mech may charge its PPC capacitor (it cannot start a game charged, unless a specific scenario states otherwise). This requires one turn and builds up 5 points of heat. This charge can be held as long as needed, during which time the charged capacitor continues to generate 5 points of heat. When a charged PPC is fired, add 5 points of heat in addition to the heat the PPC normally generates.

For example, if a 'Mech with an ER PPC with a capacitor charges the weapon in Turn 1 but does not fire it until Turn 4, it would generate 5 points of heat from the charging capacitor for Turns 1 through 3, and 20 points in Turn 4 when it fires (15 for the ER PPC, plus 5 for the capacitor's charge release).

A PPC fired with an attached and charged PPC capacitor adds 5 points to its normal Damage Value. An attack roll result of 2 with a capacitor-charged PPC burns out the system before it can fire, inflicting a critical hit on the capacitor slot (in this instance, it does not explode; see below) as well as the first critical slot of the corresponding weapon, but inflicting no damage against the target.

Critical Hit: A PPC capacitor explodes if it or its attached PPC suffer a critical hit while charged, resulting in an internal explosion equal to the full combined maximum Damage Value of the PPC and its capacitor. The explosion also destroys all critical slots for both the PPC and its capacitor. If the PPC was or will be fired during the same Weapon Attack Phase, the weapon is considered to have discharged before the critical hit, and the critical hit simply destroys the affected slot with no explosive effects.

Technology Base: Clan or Inner Sphere
Type: X

PLASMA WEAPONS

Plasma weapons, rather than tapping a BattleMech's fusion reactor for their ammunition, instead incinerate a cartridge of plastic foam and use it as a projectile.

Ammunition: Non-explosive.
Type: DE, H

PLASMA CANNON

"We have perfected your 'Plasma Rifle', Spheroid. That will be one Assault 'Mech." – Clan Diamond Shark Merchant.

Game Rules: A plasma cannon has no Damage Value. However, a 'Mech hit by a Plasma Cannon must add 2D6 points of heat during that turn's Heat Phase (see *Outside Heat Sources*, p. 50).

Technology Base: Clan

PLASMA RIFLE

"For the pyromaniac who thinks they have everything."

Game Rules: In addition to its standard Damage Value of 10, a plasma rifle delivers 1D6 points of heat to 'Mechs during the Heat Phase (see *Outside Heat Sources*, p. 50).

Technology Base: Inner Sphere

RIFLES (CANNONS)

"Real cutting-edge stuff here. Might as well get a trebuchet."

These weapons were produced by various Inner Sphere and Periphery manufacturers for centuries before the modern autocannon rendered them obsolete. Today, very few are manufactured in the Inner Sphere (usually in the most technologically backward areas) while the Clans have abandoned them entirely.

Game Rules: Rifles of all sizes must subtract 3 points of damage (to a minimum of 0) for successful attacks against any 'Mech. For example, a light rifle (which deals 3 damage) is incapable of damaging 'Mechs. However, they still do their full damage against terrain and buildings.

Technology Base: Inner Sphere
Type: DB

SPECIAL MUNITIONS

With many pilots and commanders not content to load standard ammunition types, the various Successor States and other nations have created a wide variety of alternate specialty ammunition types to deal with just about any conceivable battlefield situation.

Note that tech base restrictions still apply; a weapon may only select munitions available to its tech base. The use of special munitions must be declared before firing.

AUTOCANNON MUNITIONS

Ammunition Multiplier: Some autocannon munitions provide greater or fewer shots per ton than a ton of standard ammunition. Multiply the standard shots per ton for that weapon by the munition's ammunition multiplier to find the number of shots per ton that munition type provides (for reductions, round the final total down).

For example, an AC/20 normally receives five shots per ton. Using ammunition with a 0.5 multiplier, it would receive two shots per ton instead.

ARMOR-PIERCING (AP) AMMO

Game Rules: Apply a +1 modifier to the attack's Target Number.

So long as it deals damage, a hit with AP ammo has a chance at causing critical damage, even if the target's internal structure took no damage. After applying the attack damage, roll once on the Determining Critical Hits Table (see p. 46). This roll is modified based on the type of AC used, with the AC/2 applying a –4 modifier, the AC/5 a –3 modifier, the AC/10 a –2 modifier, and the AC/20 a –1 modifier.

If using a ProtoMech Autocannon (PAC), use the following modifiers instead: PAC 2 (–4), PAC 4 (–3), PAC 8 (–2).

If the attack scores a through-armor critical hit (see p. 45), make two checks for potential critical damage, applying the AP ammo roll modifier to only one of those checks. However, if the attack damages internal structure directly (i.e. there is no armor in that location) make only the standard check for critical damage in that location; AP ammo has no special effect in this case.

This ammunition loses its AP ability against 'Mechs with hardened or ferro-lamellor armor.

Ammunition Multiplier: x0.5
Technology Base: Clan (PAC only), Inner Sphere
Usable By: AC, LAC, PAC

CASELESS AMMO

Game Rules: On an attack roll result of 2, the ammo feed breaks down: the weapon is useless for the rest of the scenario. In addition, the shot automatically misses and the controlling player must immediately roll once on the Determining Critical Hits Table (see p. 46), applying all critical hits to the affected autocannon (starting with the uppermost undamaged slot). This is not an ammunition explosion, and MechWarrior damage does not occur as a result.

A weapon using caseless ammo can use no other special munition types.

Ammunition Multiplier: x2
Technology Base: Clan or Inner Sphere
Usable By: AC, LAC

CLUSTER AMMO

Game Rules: Apply a –1 modifier to the attack's Target Number. An attack with cluster ammunition is treated as both a type C (Cluster) and type F (Flak) attack.

Ammunition Multiplier: x1
Technology Base: Clan or Inner Sphere
Usable By: LB-X

FLECHETTE AMMO

Game Rules: Double damage against woods or jungle hexes. Half damage versus all other targets (round down).

Ammunition Multiplier: x1

Technology Base: Clan (PAC only), Inner Sphere

Usable By: AC, LAC, PAC

PRECISION AMMO

Game Rules: Reduce the target's movement modifier by 2, to a minimum of zero.

Ammunition Multiplier: x0.5

Technology Base: Inner Sphere

Usable By: AC, LAC

MISSILE MUNITIONS

ARTEMIS IV MISSILES

Game Rules: Artemis IV-equipped missiles used with an Artemis IV FCS (see p. 110) gain a +2 modifier when rolling on the Cluster Hits Table (to a maximum modified result of 12). If interfered with by ECM, they may still be fired as normal (unaugmented) missiles of their base launcher type.

Artemis IV-equipped missiles provide no benefits when fired from an Artemis V launcher (and vice versa).

Technology Base: Clan or Inner Sphere

Usable By: LRM, LRT, NLRM, NLRT, SRM, SRT, MML

ARTEMIS V MISSILES

Game Rules: Artemis V-equipped missiles used with an Artemis V FCS (see p. 110) apply a –1 modifier to their attack rolls, and add +3 to rolls on the Cluster Hits Table (to a maximum modified result of 12). If interfered with by ECM, they may still be fired as normal (unaugmented) missiles of their base launcher type.

Artemis V-equipped missiles provide no benefits when fired from an Artemis IV launcher (and vice versa).

Technology Base: Clan

Usable By: LRM, LRT, SRM, SRT

FRAGMENTATION MISSILES

Game Rules: Double damage against woods or jungle hexes. No damage versus all other targets.

Technology Base: Inner Sphere

Usable By: LRM, NLRM, MML

INFERNO MISSILES

Game Rules: Infernos do not have a Damage Value. Instead, each missile that strikes a 'Mech increases its heat level by 2 points during the Heat Phase of the turn in which the missiles hit. Any additional heat dealt by infernos lasts for only one turn.

When rolling to avoid an ammunition explosion due to its own heat level, a 'Mech carrying Inferno ammunition must roll an additional set of Heat Scale Avoid Rolls to determine whether or not the ammo explodes per the Inferno Ammo Explosion Table. The inferno Avoid Rolls at 19, 23, and 28 heat points must be made in addition to the normal Avoid Rolls required at these heat levels. If the inferno ammo explodes, it inflicts 2 heat per missile to the carrying 'Mech, to a maximum of 30 heat, along with the standard damage from an SRM explosion.

Building Hexes: Each inferno missile that strikes a building hex inflicts 2 points of damage to the hex.

INFERNO AMMO EXPLOSION TABLE

Heat Level	Avoid Number	Heat Level	Avoid Number
10	4+	23	10+
14	6+	28	12
19	8+		

Additionally, each missile that strikes a building hex may also affect 'Mechs inside the building on the level of the building that was hit by inferno missiles. For every 'Mech on the level of the building that was hit, roll 1D6. On a result of 1-4, the missile has no effect against that 'Mech. On a result of 5-6, the missile also strikes the 'Mech. It is possible for one missile to strike multiple 'Mechs on the same level of the building hex. Note that inferno missiles are an exception to the *Attacking 'Mechs Inside Buildings* rules (see p. 71).

Fire: If an attacker is intentionally trying to start a fire, one or more inferno missiles fired at any woods, jungle, or building hex will automatically set that hex on fire. See *Starting a Fire*, page 63.

Woods: Every inferno missile that strikes a woods hex inflicts 4 points of damage to the hex.

Technology Base: Clan or Inner Sphere

Usable By: SRM and MML

NARC-EQUIPPED MISSILES

Game Rules: Narc-equipped missiles can home in on Narc homing pods (see both *Homing Pods* entries, p. 108). If interfered with by ECM, they may still be fired as normal (unaugmented) missiles of their base launcher type.

Technology Base: Clan or Inner Sphere

Usable By: LRM, NLRM, SRM, MML

SEMI-GUIDED LRMS

Game Rules: Against any target successfully designated by friendly TAG (see p. 113), these missiles ignore the target movement modifier (if fired indirectly, also ignore all indirect fire, terrain, and spotter-related modifiers).

Technology Base: Inner Sphere

Usable By: LRM, NLRM, MML

NARC / INARC PODS

Game Rules: Fired from Narc missile beacons (see p. 104). Multiple pods of the same type do not have a cumulative effect; they only add redundancy.

A pod, once attached, remains in effect for the entire battle. However, if the location a pod is attached to is destroyed, the pod is also destroyed and its effects are lost at the end of the phase in which the location was destroyed.

Critical Hit: Unless stated otherwise, a critical hit to a slot that contains a Narc ammunition bin causes it to explode, inflicting 2 points of damage per pod (3 points per iNarc pod).

ECM PODS

Game Rules: On a successful attack, treat the target as if within an ECM field hostile to it (see *ECM Suites*, p. 112). The ECM pod has no effect radius of its own—it only works on the target to which it is attached.

Technology Base: Inner Sphere
Usable By: iNarc

EXPLOSIVE PODS

Game Rules: On a successful attack, the target suffers 4 points of damage (6 for iNarcs).

Critical Hit: A critical hit to a slot that contains explosive pods causes the pods to explode, inflicting 4 points of damage (6 for iNarcs) per pod remaining.

Technology Base: Inner Sphere
Usable By: Narc, iNarc

HAYWIRE PODS

Game Rules: On a successful attack, the target suffers a +1 Target Number modifier to all weapon attacks (including TAG) and may not spot for indirect fire.

Technology Base: Inner Sphere
Usable By: iNarc

HOMING PODS (NARC)

Game Rules: On a successful attack, in subsequent turns all friendly Narc-equipped missile hits on the target gain a +2 modifier when rolling on the Cluster Hits Table. Homing pods are non-functional as long as they are within the area of effect of an active enemy ECM suite (see *ECM Suites*, p. 112).

Technology Base: Clan or Inner Sphere
Usable By: Narc

HOMING PODS (iNARC)

Game Rules: On a successful attack, in subsequent turns all friendly Narc-equipped missile attack rolls against the target apply a –1 modifier to their Target Number, and a +2 modifier when rolling on the Cluster Hits Table. Homing pods are non-functional as long as they are within the area of effect of an active enemy ECM suite (see *ECM Suites*, p. 112).

Technology Base: Inner Sphere
Usable By: iNarc

NEMESIS PODS

Game Rules: Attacks using Artemis IV-capable, Narc-equipped, or semi-guided missiles will strike a friendly 'Mech tagged by an enemy Nemesis pod instead of their intended enemy target, if:

- the Nemesis-tagged 'Mech is along the LOS between the attacker and the original target, and
- LOS exists between the attacker and the Nemesis-tagged 'Mech, and
- the Nemesis-tagged 'Mech is not underwater.

Apply a +1 Target Number modifier to such unintentional attacks, starting with the closest Nemesis-tagged friendly if more than one 'Mech meets the criteria (if there is more than one such friendly, determine the friendly randomly).

These Narc missile beacon munitions can also attract Arrow IV homing missiles (see p. 108). If a Nemesis-tagged 'Mech is in a hex adjacent to the intended target in the turn the homing missile arrives, roll 1D6. On a result of 1–3, the attack hits the Nemesis-tagged target. On a result of 4–6, the attack is resolved against the intended target. If there are multiple adjacent Nemesis-tagged targets, there is an equal chance the homing missile will strike any of them if it does not strike the intended target.

Technology Base: Inner Sphere
Usable By: iNarc

PHYSICAL WEAPONS

Physical weapons are a wide variety of cutting, bashing, or slashing weapons mounted onto BattleMechs. These range from 'Mech-sized claws to ornate blades to massive, pulverizing maces. The Clans initially demonstrated no interest in melee weapons, finding them a primitive and wasteful "barbarian" alternative to "proper" ranged combat. However, their recent employment of claws may indicate that this attitude is changing.

Game Rules: In a single turn, a 'Mech can either fire the weapons mounted on an arm or deliver a physical weapon attack with that arm, but not both. While a 'Mech can have two physical weapons, it can only ever attack with one of them each turn unless the weapon specifies otherwise. For more details on physical attacks, see page 34.

Hit Location Table: Some physical weapons use the standard Hit Location Table, and some the Punch Hit Location Table. Still others by default use the standard Hit Location Table, but have the option to use the Punch Hit Location Table if this is announced before the attack and a +4 modifier is applied to the attack's Target Number. For each weapon, the annotation of Standard, Punch, or Option will be used to indicate which of the above three hit location methods applies.

TSM: Some physical weapons benefit from triple-strength myomer (see p. 117). Those that do will be noted.

CLAWS

"RIP AND TEAR!"

Game Rules: A claw applies a +1 Target Number modifier, and deals 1 point of damage for every 7 tons of the attacking 'Mech's weight (rounded up). A 'Mech with two claws can make two claw attacks each Physical Attack Phase.

'Mechs with claws may lift an object as Normal (see *Lifting Items (Simplified)* p. 21), but must make a successful Piloting Skill Roll (see p. 53) with a +2 modifier to avoid damaging the object. If the object is extremely fragile (such as a human being), an additional +1 modifier applies (at the gamemaster's discretion or mutual player agreement). A failed attempt to lift an object effectively destroys it.

Claws may be used to grab and wield a club (see p. 36), with an additional +2 modifier to the attack's Target Number.

Hit Location Table: Punch.
TSM: Yes.
Technology Base: Clan or Inner Sphere

FLAIL

"If you get over the whole 'crushing your own cockpit' thing, it's not a bad weapon."

Game Rules: A flail deals 9 damage when it hits. On a flail attack roll result of 2, the attacker automatically misses the intended target, and instead strikes itself. Such a self-inflicted strike delivers only 5 points of damage, resolved using the Front column of the standard Hit Location Table. Additionally, the attacker must make a Piloting Skill Roll (see p. 53) to avoid falling.

Hit Location Table: Standard.
TSM: No.
Technology Base: Inner Sphere

HATCHET

"I could bury this, but you wouldn't like it."

Game Rules: Attacks with hatchet apply a –1 Target Number modifier, and deal 1 damage per 5 tons of the attacking 'Mech's weight.

Hit Location Table: Option.
TSM: Yes.
Technology Base: Inner Sphere

LANCE

"At last I can joust with a fusion bomb between my legs."

Game Rules: Attacks with a lance deal 1 damage per 5 tons of the attacking 'Mech's weight. After a lance hit, if armor remains in the location struck (or facing, for torso locations), the attacker rolls 2D6. On a result of 10+, the hit also deals 1 point of internal structure damage; the resulting Determining Critical Hits Table roll applies a –2 modifier. (A lance attack that strikes unarmored internal structure rolls for Determining Critical Hits normally.)

Hit Location Table: Standard.
TSM: Yes.
Technology Base: Inner Sphere

MACE

"Walk as softly as an 80-ton 'Mech can and carry this."

Game Rules: Attacks with a Mace apply a +1 Target Number modifier, and deal 1 damage per 4 tons of the attacking 'Mech's weight (rounded up).

If a mace attack misses its target, the attacker must make a Piloting Skill Roll (see p. 53) with a +2 modifier to avoid falling.

Hit Location Table: Option.
TSM: Yes.
Technology Base: Inner Sphere

RETRACTABLE BLADE

"The time-honored tradition of shanking, now for BattleMechs."

Game Rules: Attacks with a retractable blade apply a –2 Target Number modifier, and deal 1 damage per 10 tons of the attacking 'Mech's weight (rounded up).

Piercing (Optional): With this option, if a 'Mech hits with a punch attack, and that arm has a retractable blade which is currently retracted, its controller can immediately extend that blade. This inflicts a possible critical hit in the location struck by the punch attack (regardless of whether internal structure was damaged or not; if the attack damages the target's internal structure as well, make two checks). The attacker must then immediately roll 2D6: on a result of 10+, the blade is destroyed (mark off the topmost critical slot).

Hit Location Table: Option.
TSM: Yes.
Technology Base: Inner Sphere

SWORD

"The noble art of fencing reduced to a brutal form. Bashing someone's 'Mech apart has never been so elegant."

Game Rules: Attacks with a sword apply a –2 Target Number modifier, and deal 1 damage per 10 tons of the attacking 'Mech's weight (rounding up), plus 1 additional point of damage.

Hit Location Table: Option.
TSM: Yes.
Technology Base: Inner Sphere

TALONS

"Partial wings and now this. I bet the Diamond Sharks make a Jade Falcon beak-and-feathers kit next."

Game Rules: When performing a kick or Death From Above attack, multiply the damage by 1.5 (round to nearest whole number; .5 rounds up). On mixed-technology 'Mechs, talons can receive the TSM damage bonus for kick attacks, but not for DFA attacks. Critical hits to the talons or the foot actuator in the leg where they are mounted destroy the talons.

Hit Location Table: As per attack type.
TSM: With kicks.
Technology Base: Clan

VIBROBLADE

"Lets even light 'Mechs carve up assaults like a chainsaw on butter."

Game Rules: Attacks with a vibroblade apply a –2 Target Number modifier. When declaring a vibroblade attack, the attacker must announce if the weapon is activated or deactivated. Activated vibroblades generate heat and deliver a fixed damage amount (7 for a small vibroblade, 10 for a medium, and 14 for a large), regardless of actuator damage or equipment such as TSM.

When deactivated, a vibroblade creates no heat and deals damage equal to 1 plus the 'Mech's tonnage divided by 10 (rounding up to the nearest whole number), modified by equipment and critical damage as normal. The damage dealt by a deactivated vibroblade cannot exceed the damage an activated vibroblade of that type deals.

Hit Location Table: Option.
TSM: If deactivated.
Technology Base: Inner Sphere

ELECTRONICS

Game Rules: Any system in this section can be deactivated in the End Phase of any turn. It may then be reactivated in any following End Phase.

ACTIVE PROBES

'Mechs with multiple active probes (of any type) may use only one at a time. These systems can be activated, deactivated, or switched over during the End Phase of any turn.

Hidden 'Mechs (Expanded) (Optional): When using the *Hidden 'Mechs* rules, a player normally determines if any enemy

'Mechs lie within the detection radius of an active probe after the 'Mech has finished moving (see p. 82). Using this option, the detection radius is active throughout the 'Mech's entire movement. This allows a probe-equipped 'Mech to detect hidden 'Mechs along its movement path, whereas the standard rules can result in a probe passing a hidden 'Mech without detecting it.

Targeting (Optional): If a target is within the probe's range and line of sight exists to the target, reduce the total Target Number modifier for firing through and into woods/jungles by 1 (that is, reduce the total woods/jungles modifier by 1, regardless of the number of woods/jungle hexes involved). This bonus applies only to the 'Mech with the probe, unless that 'Mech is part of a C^3 network, in which case the bonus is passed along to other 'Mechs in that network.

ACTIVE PROBE/BEAGLE ACTIVE PROBE/LIGHT ACTIVE PROBE

"I see you..."

Game Rules: An active probe only affects game play if players are using the *Hidden 'Mechs* rules (see p. 82). Under those rules, an active probe can detect any hidden 'Mech, if at the end of a Movement Phase the concealed 'Mech lies inside the probe's range) and line of sight would exist between the 'Mech carrying the probe and the hidden 'Mech (if that 'Mech was not concealed).

The ranges for each probe type are as follows: Light Active Probe (3), Beagle Active Probe (4), Active Probe (5). Otherwise, all three probes behave the same, with any reference to "active probes" applying equally to all three types listed here.

Water: If an active probe is in a location of a 'Mech that is above the surface of a water hex, it cannot detect a 'Mech hidden underwater. For an active probe to work underwater, it must have a clear LOS to a hidden 'Mech that passes only through underwater hexes.

Technology Base: Clan (Active Probe, Light Active Probe) or Inner Sphere (Beagle)

BLOODHOUND ACTIVE PROBE

"… Yes, even you."

Game Rules: A Bloodhound Active Probe follows the same rules as regular active probes (see above). However, in addition to its increased range (8 hexes), the Bloodhound is not defeated by regular ECM suites. Only Angel ECM can defeat a Bloodhound active probe.

Technology Base: Inner Sphere

ARTEMIS IV FIRE-CONTROL SYSTEM

"Give the gift of good missile grouping."

Game Rules: Successful attacks by launchers using this system and firing Artemis IV-equipped missiles (see p. 107) apply a +2 to the Cluster Hits Table roll (to a maximum modified result of 12). Indirect fire attacks do not receive these bonuses.

An Artemis FCS cannot be used with Streak launchers or Narc-equipped missiles. It can be used with other specialty munitions, but those munitions will not gain the benefits of the Artemis system. Artemis may also be used with OS missile launchers.

Critical Hit: If the Artemis system assigned to a specific launcher is destroyed, the missile launcher can still be fired as a normal launcher.

Technology Base: Clan or Inner Sphere

ARTEMIS V FIRE-CONTROL SYSTEM

"Why don't Clan missile launchers just come standard with this?"

Game Rules: Attacks by launchers using this system and firing Artemis V-equipped missiles (see p. 107) apply a –1 modifier to their Target Number and +3 to the Cluster Hits Table roll (to a maximum modified result of 12). Indirect fire attacks do not receive this bonus.

An Artemis FCS cannot be used with Streak launchers or Narc-equipped missiles. It can be used with other specialty munitions, but those munitions will not gain the benefits of the Artemis system. Artemis may also be used with OS missile launchers.

Critical Hit: As per Artemis IV (see above).

Technology Base: Clan

C^3 COMPUTER SYSTEM

"I thought this firmware upgrade was going to let me stay out of sight when shooting?"

Game Rules: A C^3 computer system can link up to twelve 'Mechs together in a communications network that shares targeting information. When using a C^3 computer network, range to a target is calculated from the networked 'Mech nearest the target. This means that a well-placed 'Mech may allow an attacker to use their weapon's short-range Target Number modifier, even though the attacker might be at long range.

A weapon attack using a C^3 network must conform to standard LOS restrictions and cannot fire beyond its maximum range. The C^3 network itself has no maximum range, but only 'Mechs actually on the playing area can benefit from the network or provide information to it, and the C^3 Master (or C^3 Masters, if using a company-sized network) must be on the playing area.

Indirect Fire: C^3-equipped 'Mechs launching or spotting targets for an indirect fire attack use the *Indirect Fire* rules (see p. 30), and gain no benefit from a C^3 network.

LOS: While 'Mechs must have LOS to a target to make an attack using a C^3 system, the C^3 system itself need not have LOS.

Minimum Range: Minimum range is always calculated from the actual attacker.

Same Hex: If a networked 'Mech providing targeting data to other members of the network is in the same hex as a target (such as a building), attacks by those other members against that target are still legal.

Water: If the C^3 computer (any kind) is in a location above the surface of a water hex, it cannot be linked to a C^3 system underwater. Instead, C^3 underwater is only able to link to another C^3 that is also underwater.

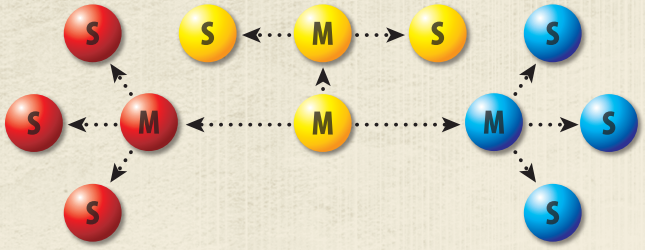
Equipment: The following equipment and rules interact with C^3 systems in specific ways:

- **ECM:** ECM cuts off any C^3-equipped 'Mech from its network. Only those C^3 'Mechs able to draw a direct line to the master 'Mech that does not pass through an ECM's area of effect can access the network. See *ECM Suites*, page 112, for details.
- **Stealth Armor:** Stealth armor range penalties are calculated using the distance between the stealth-equipped 'Mech and the closest 'Mech to it in the network.
- **TAG:** A C^3 Master (but not C^3 Slaves) exactly duplicates the function of TAG (see *Target Acquisition Gear*; p. 113).
- **Variable Damage Weapons:** When determining the damage of a Type V (Variable Damage) weapon, always use the range from the attacking 'Mech to the target.

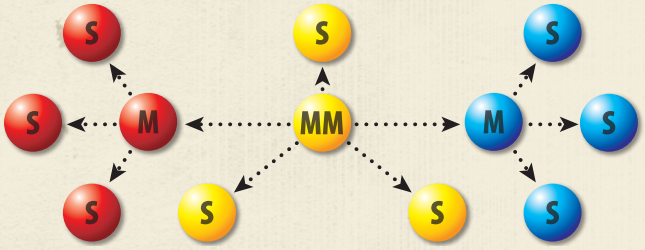
• C³ DIAGRAM •

• C³ CONFIGURATION DIAGRAM •

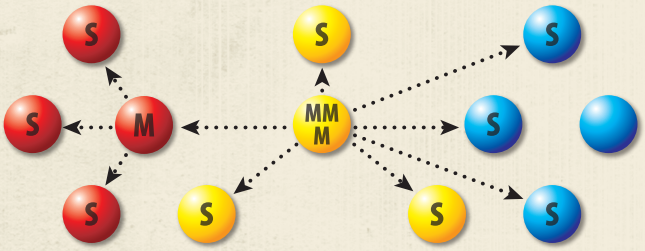
CONFIGURATION 1



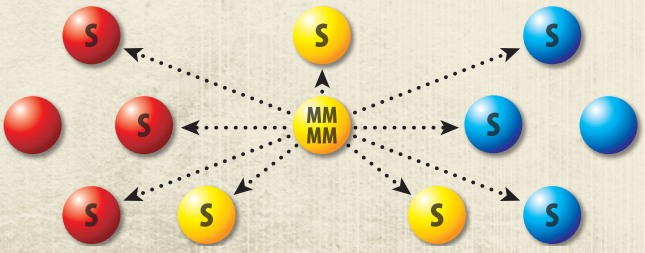
CONFIGURATION 2



CONFIGURATION 3



CONFIGURATION 4



In the C³ Diagram, the enemy 'Mech in Hex A is facing 'Mechs in Hexes B, C, D and E, which are connected to a C³ network. The 'Mech in Hex B is closest to the enemy, at a Range of 2; even though it is at Level 10, levels are never taken into consideration when determining range to target. The 'Mech in Hex C can attack as though it were at a Range of 2, provided the weapons it fires have a Maximum Range of 4 or more. The 'Mech in Hex D can also fire as though at a Range of 2, but must add the terrain modifier for firing through the light woods in Hex F. The 'Mech in Hex E cannot attack the enemy 'Mech in Hex A because no line of sight exists between the two.

In all cases, if the 'Mechs in Hex C, D, or E fired weapons with minimum ranges, those ranges must be taken into consideration, with the range determined from the attacker to the target, not the range from the 'Mech in Hex B to the target.

if there were a Level 2 hill in Hex F (blocking LOS between the 'Mech in Hex B and the target in Hex A), the 'Mechs in Hexes C and D would still be able to target the 'Mech in Hex A as though they were at Range 2.

DESIGNATING A C³ NETWORK

Prior to the start of play, the controller of a C³ network must clearly designate on their 'Mech's record sheets which C³ Masters controls which C³ Masters and/or C³ Slaves, and which C³ Master connects three C³ Masters together to form a company-level (12-'Mech) C³ network; as noted above, the C³ network can never be extended beyond 12 'Mechs.

To designate a C³ network, use the following rules:

- A C³ Master can only control one to three C³ Slaves or one to three C³ Masters.
- While a C³ Master controls another C³ Master, it cannot control a C³ Slave.

The C³ Configuration Diagram illustrates the only four ways (see *All-C³ Master Network* below for the exception) a C³ network can be created. In each of the four diagrams, a circle represents a 'Mech; an "S" represents a C³ Slave, while an "M" represents a C³ Master. The arrows show the network links between C³ Masters and C³ Slaves, while the colors differentiate between each lance-level (4-'Mech) C³ network.

All-C³ Master Network: The only allowable variation on those four configurations is to replace C³ Slaves with C³ Masters.

For example, in Configuration 1, if the controlling player replaced any of the C³ Slaves in the red lance with a C³ Master, then all three C³ Slaves in that lance would have to be replaced with C³ Masters, as a C³ Master cannot control another C³ Master and control a C³ Slave simultaneously. Such an exchanging of C³ Slaves for C³ Masters can happen at the lance level, without affecting the company level. In the cited example, even if the entire red lance was composed of C³ Masters, the blue and yellow lances could still be composed of networks consisting of a C³ Master and three C³ Slaves.

Multiple Networks: If multiple C³ networks are established at the start of the game and they are not designated as connected before play begins, they cannot share targeting information.

A 'Mech may only belong to a single C³ network. Additionally, while a 'Mech may mount both a C³ Master and a C³ Slave, it may not use both at once; during the End Phase of any turn the player may announce switching between each for use of that system in the following turn. If a player fields a 'Mech equipped in this way, they must designate at the start of game which C³ system is operational.

C³ BOOSTED SYSTEM (C³BS)

C³BS is a variant of standard C³ that functions identically to a standard C³ network. However, the only ECM that can block it is the Angel ECM Suite.

Standard and boosted C³ systems can be connected together into the same network. However, in such a network, a non-boosted member is still cut off as normal if in the effect radius of hostile ECM, and a non-boosted master cannot transmit data to boosted members in the effect radius of any kind of hostile ECM.

C³I COMPUTER SYSTEM

"The perfection of Sainted Blake's ideals. Unless you want to work as a team of seven."

Game Rules: The C³i computer follows the standard C³ computer rules above, with the following changes.

Every 'Mech in a C³i network mounts the same C³i computer: there are no master and slave variants. Up to six 'Mechs may be linked in a single C³i network. Multiple networks cannot be linked together.

Because a C³i network has no master computer, the network cannot be shut down by the loss of a single 'Mech. Only 'Mechs in the effect radius of enemy ECM or whose C³i computer is destroyed are isolated from the network.

C³i computers are not compatible with standard C³ Masters/C³ Slaves and do not have the TAG capability of the standard C³ Master.

Technology Base: Inner Sphere

ECM SUITES

'Mechs with multiple ECM suites (of any type) may use only one at a time.

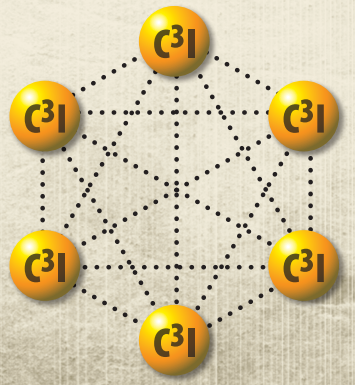
Water: If an ECM suite is in a location above the surface of a water hex, it cannot affect 'Mechs underwater. In other words, for an ECM suite to affect 'Mechs underwater, the suite must be in a location that is underwater.

ECM SUITE/GUARDIAN ECM SUITE

"Only one man would dare *use Somerset jamming techniques on me. ADAM STEINER!" – Nicolai Malthus,* The Somerset Strikers *series, broadcast 08/12/3052*

Game Rules: These ECM suites create a 6-hex bubble that disrupts many systems used by enemy 'Mechs' within the bubble, as well as any line of sight traced through that bubble (friendly 'Mechs are unaffected). Within this radius, the ECM suite has the following effects on the following enemy systems:

- **Active Probe:** Active probes cannot penetrate an ECM's area of effect. The probing 'Mech would notice that it is being jammed, however. This does not apply to Bloodhound Active Probes.
- **Artemis IV/V FCS:** ECM blocks the effects of Artemis FCS. Artemis-equipped launchers may be fired through or into ECM, but they lose any Target Number and Cluster Hits Table bonuses.
- **C³ and C³i Computer:** ECM cuts off any C³-equipped 'Mech from its network. Only those C³ 'Mechs able to draw an LOS to the master 'Mech that does not pass through the ECM radius can access the network.
- If a C³ Master is isolated from the network by ECM, the entire network below it is effectively shut off (all 'Mechs subordinate to it on the diagram on p. 111), though the Master's TAG capability still



• C³I DIAGRAM •

functions. For a Master 'Mech connecting the lances of a company, this means that the link between the lances is broken, but the network of each lance remains intact unless also subject to ECM.

- **Narc Missile Beacon:** Narc-equipped missiles lose the bonuses provided by their homing pod if the pod they are homing in on lies within an ECM bubble. A Narc launcher itself (standard and iNarc) is not affected by ECM.
- **Unaffected Systems:** Any system not listed above is unaffected by ECM. This includes Streak launchers, targeting computers, TAG, and MRM Apollo FCS.

Technology Base: Clan (ECM suite) or Inner Sphere (Guardian)

ANGEL ECM SUITE

"The good and bad angel, all in one lovely package."

Game Rules: The Angel ECM suite works like standard ECM (see above), but also blocks the Bloodhound Active Probe and even negates the locking systems of Streak missiles. Streak missiles fired into or through a hostile Angel ECM bubble will not fire if the attack roll fails (as normal), but on a successful Streak launcher attack, the attacker must roll on the Cluster Hits Table as though the launcher were a standard (non-Streak) model.

Technology Base: Clan or Inner Sphere

MRM "APOLLO" FIRE CONTROL SYSTEM

"Caution: not responsible for lost missiles."

Game Rules: An Apollo system negates the +1 Target Number modifier that applies to an equipped MRM launcher. However, on a successful hit with such a launcher, the attacker must subtract 1 from their roll on the Cluster Hits Table.

Critical Hit: An Apollo Fire Control System is an attachment to an MRM launcher, but if it suffers a critical hit the launcher continues to function.

Technology Base: Inner Sphere

TARGET ACQUISITION GEAR (TAG)

"You're it!"

Game Rules: Instead of making an attack roll for TAG during the Weapon Attack Phase, all 'Mechs making TAG attacks do so after the end of the Movement Phase, but before the beginning of the Weapon Attack Phase (initiative order is still followed, however).

To designate a target with TAG, calculate the Target Number as for a standard weapon attack (TAG does not benefit from a targeting computer). As using TAG occurs before the Weapon Attack Phase, it does not count towards the number of targets a 'Mech engages in the Weapon Attack Phase, or prevent physical attacks by the firing 'Mech.

If the attack roll is successful, the target is TAG-designated for that turn's Weapon Attack Phase (no hit location roll is made). Note that the designation causes no damage on its own; TAG only enables the use or enhanced functionality of certain ammunition types (semi-guided munitions, Arrow IV Homing missiles, and Copperhead artillery shells). Any number of attacks that turn from any number of 'Mechs (including the 'Mech with TAG itself) may utilize the TAG designation.

Successful TAG designation also counts as spotting the target for indirect fire (see *Indirect Fire*, p. 30).

Light TAG functions as TAG; only its range is altered, and any reference to TAG applies to Light TAG equally.

Technology Base: Clan (TAG, Light TAG) or Inner Sphere (TAG)

TARGETING COMPUTER

"All I'm saying is that it stops being just a computer when you've added four tons of servos and waldoes."

Game Rules: A targeting computer improves the accuracy of all weapons of the DB, DE, or P types on that 'Mech. However, even if the weapon has one of the above types, it does not benefit from the presence of a targeting computer if it is any variety of flamer or machine gun, is making a Cluster or Flak attack, or is any other weapon specifically excluded in its description.

Attacks with all eligible weapons apply a –1 Target Number modifier.

The above modifier applies when making an aimed shot against an immobile target (see p 30). However, a targeting computer also allows aimed shots against non-immobile 'Mechs. When targeting a non-immobile 'Mech, the targeting computer's usual –1 Target Number modifier is ignored, and a +3 modifier is applied instead. Otherwise, follow the normal rules for aimed shots.

For targeting computer-aided aimed shots against either type of target (mobile or immobile), Pulse type weapons cannot be used, and the head may not be targeted. Below are the standard modifiers for a 'Mech with a targeting computer (TC) when making the various types of aimed shots:

- Aimed Shot w/ TC, Mobile Target: +3 Target Number Modifier (head may not be targeted)
- Aimed Shot w/ TC, Immobile Target, Head Shot: not a legal target unless the TC is shut off
- Aimed Shot w/ TC, Immobile Target, any other location: –5 Target Number Modifier (–4 Immobile, –1 TC)

Despite being a Cluster type weapon, Hyper-Assault Gauss rifles benefit from a targeting computer's Target Number modifier if not making a Flak attack. However, HAGs are never able to make Aimed Shots.

Technology Base: Clan or Inner Sphere

WATCHDOG COMPOSITE ELECTRONIC WARFARE SYSTEM (CEWS)

"By the time the probe picks up the enemy, I'm already jamming them."

Game Rules: The CEWS works in the same way as the Clans' standard ECM and Light Active Probe (see p. 112 and 110).

A Watchdog can be used as the ECM suite stealth armor requires.

Technology Base: Clan

STRUCTURAL COMPONENTS

Equipment is listed in this section only if it possesses special gameplay rules.

ARMOR

Critical Hit: Slots allocated to armor are inapplicable slots (see p. 46); critical hit rolls resolved to them have no effect and must be re-rolled.

BALLISTIC-REINFORCED ARMOR

"At last the autocannon's reign of terror has been brought to an end."

Game Rules: Ballistic-reinforced armor reduces the damage from any attack of the DB or M types by half (rounded down, to a minimum of 1).

Technology Base: Inner Sphere

FERRO-LAMELLOR ARMOR

"Technically, I said your 'Mech was now cluster-munition proof, not LB-X-proof."

Game Rules: Ferro-lamellor armor reduces all damage by 1 point for every 5 points (or fraction thereof) delivered per hit. Excess damage affects internal structure per the normal rules for that structure type. In addition, ferro-lamellor armor negates the bonus armor-penetrating effects of Armor-Piercing ammo (see p. 106).

Attacks reduced to zero damage (such as LB-X cluster munitions) do not inflict pilot injury in the event of a cockpit hit and cannot create through-armor critical hits.

Technology Base: Clan

HARDENED ARMOR

"I've fallen and I can't get up, but I'm INVINCIBLE!"

Game Rules: Two points of damage are required to destroy each point of hardened armor. Additionally, any rolls made against a protected 'Mech on the Determining Critical Hits Table suffer a –2 modifier. Lastly, hardened armor negates the armor-penetrating effects of Armor-Piercing ammo (see p. 106).

Hardened armor impairs mobility: 'Mechs with it suffer a +1 Piloting Skill Roll modifier and –1 Running MP.

Technology Base: Clan or Inner Sphere

LASER-REFLECTIVE ARMOR

"Lasers bounce off like it's a mirror. Unfortunately, if you fall it behaves about the same."

Game Rules: Laser-reflective armor reduces all damage and heat effects from flamers, lasers, PPCs, and plasma weapons by half (rounded down, to a minimum of 1 point of damage and/or heat). However, damage from Area-Effect weapons, falls, physical attacks, and moving into buildings is doubled. Additionally, Armor-Piercing ammo (see p. 106) receives a +2 modifier when making critical hit checks against 'Mechs protected by it.

Remaining points of damage that were created as a result of the damage-doubling effect do not transfer to internal structure. For example, a 5-point hit would be doubled to 10 points of damage. A location with 9 points of armor would lose all 9 points to this hit, but the remaining single point would be lost, with no damage transfer.

Technology Base: Clan or Inner Sphere

STEALTH ARMOR

"WARNING: DOES NOT ACTUALLY TURN YOUR 'MECH INVISIBLE."

Game Rules: A 'Mech with the stealth armor system must also mount an ECM suite. When the stealth armor system is not engaged, the ECM suite functions normally. When the stealth armor system is engaged, the ECM does not function, but the 'Mech suffers effects as if in the radius of an enemy ECM suite (see p. 112). If the ECM suite is destroyed, the stealth armor system cannot function.

A 'Mech may start the game with the system engaged; this must be indicated on the 'Mech's record sheet. Stealth armor may be turned on or off during the End Phase of any turn.

While the system is engaged, attacks against a 'Mech equipped with stealth armor receive additional Target Number modifiers of +1 at medium range and +2 at long range. In addition, a 'Mech with its stealth armor system engaged cannot be attacked as a secondary target (see *Multiple Targets Modifier*, p. 27).

While engaged, stealth armor generates 10 heat points per turn.

Technology Base: Inner Sphere

COCKPIT SYSTEMS

FULL-HEAD EJECTION SYSTEM

"Something to remember your Hatchetman *by."*

Game Rules: This system may be deployed at any phase of a turn at the player's choosing, or the head may jettison automatically in the event of an internal explosion. Any critical hits to the 'Mech's Life Support slots disable this system, rendering it impossible to eject. A 'Mech with a submerged head that has suffered a hull breach also cannot use the system.

The MechWarrior automatically suffers 1 point of damage when the system is launched. If the 'Mech (or at least its head) is not submerged, the warrior may then choose any hex within 12 hexes of the 'Mech (if the 'Mech was upright at the time), or within 12 hexes in the 'Mech's forward arc (if it was prone) to make landfall. A Piloting Skill Roll (see p. 53) with a +3 modifier is required to land on target; failure means the head scatters 1D6 / 2 hexes (rounding down) in a random direction. Upon landing, a standard MechWarrior ejection roll (see p. 81) must be made with an additional +2 Target Number modifier to avoid taking a second point of damage from the ejection.

If the 'Mech is submerged (and the head location has suffered no armor breach), an ejected full-head pod automatically rockets to the water's surface and floats there as an immobile vessel, retaining the remaining armor and structure values of the 'Mech's head location.

Once the pod lands (or surfaces), the warrior may step out and make for safety, or—if floating on water or in an otherwise toxic environment—remain in the capsule to await rescue. This has no effect on standard gameplay, but may be important for certain scenarios or campaigns featuring role-playing elements.

Attacks against a jettisoned full-head pod can only be made after it has landed: for such attacks, apply the –4 modifier to the attack's Target Number for an immobile target. Attacks against a jettisoned head inflict damage to the head's remaining armor, internal structure, and critical hit locations per any other attack that strikes a 'Mech's head.

Once a full-head ejection system is jettisoned (whether successfully or not), the 'Mech is considered to have suffered a Head Blown Off critical hit and so is treated as destroyed.

Technology Base: Inner Sphere

SMALL COCKPIT

"Why yes, I'd love a Stinger*'s cockpit, only smaller."*

Game Rules: Apply a +1 modifier to all Piloting Skill Rolls.

Technology Base: Clan or Inner Sphere

TORSO-MOUNTED COCKPIT

"Knocking this 'Mech's block off doesn't really do much. Pity about the ejection system though."

Game Rules: Apply a +1 modifier to all Piloting Skill Rolls.

A MechWarrior using a torso-mounted cockpit receives no pilot damage from hits to the torso area where the cockpit is placed, though ammunition explosions, excess heat, falling damage, and cockpit destruction affect the warrior as normal. It is impossible to eject from a torso-mounted cockpit.

A 'Mech using this system may survive 2 sensor critical hits and still perform weapon attacks. Instead of the standard modifiers from sensor damage, the first sensor hit incurs a +2 Target Number modifier to all weapon attacks, while the second increases this to a +4 modifier. If both sensor hits are in the head, the +4 modifier for the second sensor hit also applies to all Physical Attacks and Piloting Skill Rolls, as the 'Mech is effectively blinded. Three sensor hits (or more) completely blind a 'Mech with a torso-mounted cockpit, rendering all weapon attacks impossible and applying a +4 modifier to all Piloting Skill Rolls.

Finally, warriors using a torso-mounted cockpit suffer more severe heat effects in the event of life support damage. If a 'Mech with a torso-mounted cockpit takes a life support critical hit, the MechWarrior suffers 1 point of damage for every turn the 'Mech overheats by 1 to 14 points, and 2 points of damage at the end of every Heat Phase of every turn the 'Mech overheats by 15 points or more. This replaces the standard MechWarrior heat effects.

If the head of a 'Mech with a torso-mounted cockpit is destroyed, excess damage does not transfer to other locations, and further strikes to the head have their location re-rolled.

Technology Base: Clan or Inner Sphere

ENGINES

XXL ENGINE

"The reactor shielding's basically aluminum foil, but it's nice to be able to heat your rations without leaving the cockpit."

Game Rules: XXL fusion engines run hot: standing still generates 2 heat points per turn, Walking movement 4 heat points, and Running movement 6 heat points. Heat generated per hex jumped is doubled, with a minimum of 6 points per jump (the heat modifiers for improved jump jet use and jumping with an XXL engine cancel each other out).

Technology Base: Clan or Inner Sphere

GYROS

HEAVY DUTY GYRO

"Takes a licking, keeps on kicking."

Game Rules: It takes three critical hits to destroy a heavy-duty gyro. On the first critical hit, a +1 modifier applies to all Piloting Skill Rolls, but no such rolls are required when the 'Mech runs or jumps. Treat the second critical hit to a heavy-duty gyro as the first critical hit to a standard gyro. The third critical hit destroys a heavy-duty gyro with all the usual effects for gyro destruction.

Technology Base: Inner Sphere

MANEUVERABILITY AIDS

MYOMER ACCELERATION SIGNAL CIRCUITRY (MASC)

"It's the Six Million C-Bill 'Mech!"

Game Rules: A 'Mech with MASC can activate the system when it declares which movement mode it will use during the Movement Phase. If so, its controller immediately rolls 2D6 (before the 'Mech moves):

- On a result of 3 or higher, the 'Mech can run that turn at a speed equal to double its current Walking MP.
- On a result of 2, the player automatically assigns one critical hit to each leg that has not yet been destroyed; the player does not roll on the Determining Critical Hits Table. This damage (and any Piloting Skill Rolls that result) is applied before the 'Mech moves. Any speed reductions that occur apply immediately, with the controlling player recalculating the appropriate Walking MP and then doubling that new number to determine how many total MPs the 'Mech may expend that turn due to the MASC system activation.
- The player must roll 2D6 every turn the 'Mech is using MASC to determine whether or the system delivers a critical hit to each leg. On the second consecutive turn of MASC use, a result of 4 or less inflicts a critical hit to each leg. A result of 6 or less inflicts a critical hit to each leg on the third consecutive turn, 10 or less on the fourth, and the fifth turn of MASC use, a critical hit is automatically assigned to each leg.
- For each turn in which the system is not used, reduce the target number at which critical hits are assigned by one interval, 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 avoid inflicting critical damage. After an intervening turn of not using the system, the player needs a 5 or higher to avoid inflicting critical hits on the 'Mech's legs. Two turns without using MASC reduces the threshold number to the original 3.
- If a 'Mech uses both MASC and a supercharger in the same round, its controller must make separate activation rolls for each. If successful, the 'Mech receives a Running MP equal to 2.5 times its Walking MP (rounded up).

Critical Hit: If critical damage occurs to MASC during a Movement Phase as it is being used (for example, due to a fall), the MASC immediately stops functioning and the player must recalculate the 'Mech's MP. If this recalculation results in the 'Mech having already expended more MP than it has available, its movement ends.

Technology Base: Clan or Inner Sphere

MASC TABLE

Turn	Avoid Number
1	3+
2	5+
3	7+
4	11+
5	Automatic

MECHANICAL JUMP BOOSTERS

"Go go Blakist Jump Booster!"

Game Rules: Mechanical jump boosters act as standard jump jets, with the following exceptions:

- Mechanical jump boosters generate no heat and may be used even underwater.
- A 'Mech using mechanical jump boosters cannot steer in mid-flight and so begins and ends its jumps with the same facing.
- Mechanical jump boosters may not be used to execute a Death From Above attack.
- A 'Mech may not use both jump jets and mechanical jump boosters in the same turn.

Technology Base: Inner Sphere

PARTIAL WING

"Not so much flying as falling with style."

Game Rules: A partial wing confers a bonus to a 'Mech's jump and heat sink capabilities.

The added Jumping MP bonus (+2 for light and medium 'Mechs, +1 for heavy and assault 'Mechs) does not apply if the 'Mech has no functioning jump jets, but does allow the 'Mech to jump beyond its normal maximum Jump MP limits.

A partial wing applies –3 Heat per turn, whether the 'Mech jumped with it or not. In addition, the bonus Jumping MP provided by a partial wing is not included when calculating heat caused by a jump: to calculate the heat generated, subtract the partial wing's Jumping MP bonus from the distance jumped. This cannot reduce the heat generated by a jump below the minimum heat points normally generated.

Each critical hit suffered by a partial wing reduces its MP bonus by 1, to a minimum of 0.

Technology Base: Clan or Inner Sphere

SUPERCHARGER

"Well, sir, it all started when Technician Barton told Davis to hold his beer..."

Game Rules: A supercharger enables a 'Mech to move at twice its standard Walking MP as an enhanced run. It follows the same rules as MASC (see at left), with the following exceptions:

- On a failed supercharger activation roll, the controlling player rolls on the Determining Critical Hits Table (p. 46) to determine the number of critical hits that results. Apply any such hits to the upper-most undamaged critical slot(s) in the center torso.
- Regardless of whether or not critical damage occurs, a failed supercharger activation roll destroys the supercharger system: mark off its critical slot.
- If a 'Mech uses both MASC and a supercharger in the same round, its controller must make separate activation rolls for each. If successful, the 'Mech receives a Running MP equal to 2.5 times its Walking MP (rounded up).
- If a 'Mech uses both triple-strength myomer and a supercharger in the same round, the TSM modifier is added before applying the supercharger modifier.

Technology Base: Clan or Inner Sphere

TRIPLE-STRENGTH MYOMER (TSM)

"Almost makes you want to laugh at inferno missiles. Almost."

Game Rules: Triple-strength myomer provides a benefit only when a 'Mech is running hot. If a 'Mech is equipped with TSM and ends a turn with a heat level of 9 or higher, the following effects take place the next turn; apply other modifiers that decrease movement, such as heat and damage, normally.

- Increase the 'Mech's Walking MP by 2 and recalculate its Running MP; multiply the new Walking MP by 1.5, rounding up. Jumping MP is unaffected. Note that any MP penalties due to heat are still applied.
- Double the 'Mech's lifting ability (see *Lifting Items*, p. 21).
- Double the damage for punch, kick, and club attacks (e.g. a punch from a 55-ton 'Mech with active TSM would do 12 damage), as well as some physical weapon attacks (see p. 38).
- If a 'Mech uses both triple-strength myomer and a supercharger in the same round, the TSM modifier is added before applying the supercharger modifier.

Critical Hit: Slots allocated to TSM are inapplicable slots (see p. 46); critical hits to them have no effect and must be re-rolled.

Technology Base: Inner Sphere

UNDERWATER MANEUVERING UNIT (UMU)

"Under the sea, where a watery doom is waiting for thee..."

Game Rules: UMUs cannot be used to move into or out of water, and have no effect on a 'Mech's movement while it is not completely submerged and in water Depth 2 or greater. Each UMU generates 1 UMU MP, and a 'Mech may move 1 hex underwater for each UMU MP. The normal hull breach rules apply (see *Hull Integrity And Breaches*, p. 65), and if the UMUs are disengaged, all standard rules for moving underwater apply.

Use of UMUs imposes a +3 attacker movement modifier on all attacks made by the UMU-equipped 'Mech, as though it were jumping. However, UMUs generate only 1 heat point per turn total, regardless of the number of UMU MPs used.

A 'Mech employing UMUs moves in an upright position. It should identify its submerged depth based on the location of its feet relative to the water surface, as an upright 'Mech within 1 depth of the surface is considered only partially submerged, and so may no longer employ UMU movement.

Technology Base: Clan or Inner Sphere

STRUCTURE

Critical Hit: Slots allocated to internal structure are inapplicable slots (see p. 46): critical hits to them have no effect and must be re-rolled.

COMPOSITE STRUCTURE

"Sure it's light, but it's got all the structural integrity of wet cardboard."

Game Rules: All damage to the internal structure of a 'Mech using composite structure is doubled.

Excess damage that transfers to a location still protected by armor does not apply this effect. Additionally, remaining points of damage created as a result of the damage-doubling effect do not transfer. For example, a 5-point hit to composite internal structure would be doubled to 10 points of damage. A location with 9 points of internal structure would lose all 9 points to this hit, but the remaining single point would be lost, with no damage transfer.

Technology Base: Inner Sphere

REINFORCED STRUCTURE

"A healthy diet of endo-composites will give your 'Mech strong bones."

Game Rules: Each point of reinforced structure can sustain two points of damage.

When rolling to determine critical hits on a 'Mech with reinforced structure, apply a –1 modifier to the roll result.

Technology Base: Clan or Inner Sphere

MISCELLANEOUS EQUIPMENT

ACTUATOR ENHANCEMENT SYSTEM (AES)

"New from Defiance Industries: the Axman*, now with Kung-Fu Grip!"*

Game Rules: An actuator enhancement system mounted in an arm provides a –1 Target Number modifier for all weapon attacks mounted in that arm (weapons split between an arm and torso location gain no bonus). Also apply a –1 Target Number modifier for all physical attacks with that arm (including physical weapons; for physical attacks that require both arms, the modifier only applies if both arms mount AES). When mounted in the legs, the AES provides a –2 modifier to Piloting Skill Rolls, while charges and kicks receive a –1 Target Number modifier.

'Mechs with AES in their legs lose all AES-provided modifiers if any of its leg-based AES slots suffer critical damage; arms only lose AES-provided modifiers if the AES in the affected arm takes a critical hit.

Technology Base: Clan or Inner Sphere

ANTI-MISSILE SYSTEM (AMS)

"The Yori Flyswatter is the last word in missile defense."

Game Rules: If a successful attack roll is made with a Missile weapon (see p. 97) against a 'Mech carrying an AMS, and strikes in the attack direction covered by the firing arc of the location in which the AMS is mounted, the defending player can choose to engage the AMS. AMS only works against weapons that are Type M (Missile weapons: see p. 97). Weapons that lack this Type, regardless of their name or any other factor, are unaffected.

If the player chooses to engage, the result is as follows:

- The attacking player applies a –4 modifier to their roll on the Cluster Hits Table (an AMS never reduces a roll on the table below 2). This modifier is cumulative with other Cluster Table modifiers.
- If the missile weapon is a Streak launcher, treat the launcher as though the controlling player rolled an 7 on the appropriate column of the Cluster Hits Table to determine how many missiles struck the target.
- If the missile weapon attack consists of only a single missile (such as a Thunderbolt missile or Narc pod), roll 1D6: on a result of 1-3 the missile is destroyed, on a result of 4-6 the missile strikes the target.
- One shot of ammunition is marked off and 1 heat point generated each time the AMS engages a missile weapon.

Each AMS cannot engage more than one missile attack per turn. If, in a single Weapon Attack Phase, more than one missile weapon successfully strikes the target in the attack direction covered by the firing arc where an AMS is mounted, the defending player can choose which (if any) missile weapon to inflict the modifier against.

Only one AMS can engage each attack, regardless of how many AMS cover the attack direction. If a 'Mech mounts more than one AMS that covers the same attack direction, the defender chooses the order in which they activate and against which (if any) missile attack each inflicts their modifiers.

Firing an AMS is not an attack. As such, engaging arm-mounted AMS will not prevent a 'Mech from punching.

Enhanced Missile Defense (Optional): Using this optional rule, if an AMS engages a missile attack, and the modified roll result on the Cluster Hits Table is less than 2, the anti-missile system has successfully destroyed all the missiles and no damage from the attack is applied.

Critical Hit: If a slot containing AMS ammo suffers a critical hit, it explodes for 2 points per shot.

Technology Base: Clan or Inner Sphere

LASER ANTI-MISSILE SYSTEM (L-AMS)

"What better way to fight missiles than with lasers?"

Game Rules: Standard anti-missile system rules apply when using the Laser AMS (see above), except the laser system requires no ammunition and generates 5 heat points. Furthermore, if an L-AMS reduces a missile flight's Cluster Hits roll to less than 2, it completely destroys the incoming flight.

A laser AMS used underwater affects torpedoes in the same manner as it does missiles.

Technology Base: Clan or Inner Sphere

ARMORED COMPONENT

"Armored item inside armored item. Is like matryoshka. Yuri approves."

Game Rules: Each critical slot of an armored component can suffer one critical hit with no effect. Armored components receive this benefit over all of the component's slots. Ammunition bins cannot be armored.

Armored shoulder and hip actuators that have not received a first critical hit also protect a 'Mech from a Limb Blown Off critical damage result. In such a case, the appropriate shoulder or hip slot merely loses its component armor as normal. Component armor cannot prevent a Blown Off result to a 'Mech's head.

Technology Base: Clan or Inner Sphere

CELLULAR AMMUNITION STORAGE EQUIPMENT (CASE)

"Sure my 'Mech's torso got blown off, but it survived to fight another day."

Game Rules: If ammo (or any other explosive component, such as a Gauss rifle) in a CASE-equipped location explodes, resolve the resulting damage to the internal structure in that location as normal. However, any excess damage is ignored, rather than transferring to an additional internal structure location. Remember that the loss of all internal structure in a side torso location also blows off the corresponding arm, though the arm is not damaged by the explosion and can still be used as a club (see p. 36).

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 ignored, as above. For example, if an Inner Sphere 'Mech suffered an arm ammo explosion and damage transferred to a side torso equipped with CASE, the internal structure of the side torso would be damaged as normal, but any excess damage beyond that would not transfer.

Critical Hit: Slots allocated to CASE are inapplicable slots (see p. 46): critical hits to them have no effect and must be re-rolled.

Technology Base: Clan or Inner Sphere

CASE II

"Poor Leftenant Weiss had all of his ammo set off. His 'Mech survived, but Weiss is a vegetable."

Game Rules: All rules references to CASE apply equally to CASE II, unless that reference or the rules below indicate otherwise.

When ammunition protected by CASE II explodes (including any ammunition-like explosions, such as critical hits to Gauss weapons), only 1 point of internal damage is inflicted to the location (with the normal chance of critical effects), while any remaining damage is applied to the location's rear armor (if any). If the location is a limb, remove all remaining armor in the location, or half the location's total original armor, whichever is less. Any remaining damage from the explosion does not transfer after that.

Furthermore, for any critical hits resulting from an ammunition explosion vented by CASE II, the controlling player rolls 2D6 again for each one, and disregards the critical effects on a result of 8+. Otherwise, the critical hit applies as normal. However, CASE II does not protect against the pilot damage from ammo explosions.

If a 'Mech carries ammunition in its head protected by CASE II, an ammunition explosion causes one point of internal structure damage. Then, half of the starting head armor (rounding up) is destroyed (e.g. if a 'Mech was designed with 9 points of head armor then it will always lose 5 points of head armor, even if the head only had 6 points remaining at the time of the explosion). No damage is transferred.

Critical Hit: Slots allocated to CASE II are inapplicable slots (see p. 46): critical hits to them have no effect and must be re-rolled.

Technology Base: Clan or Inner Sphere

COOLANT POD

"Ha! It looked *like I was overheating, but this means my 5 ER PPCs are ready to go!"*

Game Rules: Though a 'Mech may mount multiple coolant pods, only one may be triggered per turn, at the start of the 'Mech's Heat Phase. A coolant pod increases the cooling capacity of all of the 'Mech's active heat sinks by 1 point each (regardless of heat sink type).

Critical Hit: A critical hit on a coolant pod results in a 10-point ammunition explosion.

Technology Base: Clan or Inner Sphere

WEAPONS AND EQUIPMENT TABLES

The Weapons and Equipment chapter of the *BattleMech Manual* covers the most common weapons and equipment as of the in-universe year of 3145.

Primitives and Prototypes: There are a host of primitive and prototype weapons in *BattleTech*, spanning many eras. As this book is focused on the most common weapons and equipment, they are not included in the *BattleMech Manual*.

Note: While it is beyond the scope of the *Manual*, every weapon and piece of equipment within this book has a very specific Introduction date (when it first reached the battlefield). Additionally, some have an Extinct date (when the depredations of war robbed the Great Houses of their abilities to manufacture the most high-tech of weaponry) and then a Recovered date (when a technological renaissance brought such technologies back into the modern eras). These tables, however, do not employ such precise dates.

Once more, all such decisions were made to make these tables easy to use. Players wishing more exacting details for era play can find them within the various *BattleTech* books noted in the Introduction.

WEAPON TYPES

The following is a complete list of weapon Types (see pp. 96-97 for the full descriptions of each Type's effects):

- **AE: Area-Effect**
- **AI: Anti-Infantry**
- **C: Cluster**
- **DB: Direct-Fire Ballistic**
- **DE: Direct-Fire Energy**
- **E: Electronics**
- **F: Flak**
- **H: Heat-Causing**
- **M: Missile**
- **OS: One-Shot**
- **PB: Point-Blank**
- **R: Rapid-Fire**
- **S: Switchable Ammo**
- **V: Variable Damage**
- **X: Explosive**

INNER SPHERE WEAPONS

Item	Type*	Heat	Damage Value	Minimum Range	Short Range	Medium Range	Long Range	Tons	Critical Slots	Shots Per Ton	Page Ref
Direct-Fire Ballistic Weapons											
Autocannon/2	DB, S	1	2	4	1–8	9–16	17–24	6	1	45	98
Autocannon/5	DB, S	1	5	3	1–6	7–12	13–18	8	4	20	98
Autocannon/10	DB, S	3	10	0	1–5	6–10	11–15	12	7	10	98
Autocannon/20	DB, S	7	20	0	1–3	4–6	7–9	14	10	5	98
Light Gauss Rifle	DB, X	1	8	3	1–8	9–17	18–25	12	5	16	100
Gauss Rifle	DB, X	1	15	2	1–7	8–15	16–22	15	7	8	99
Heavy Gauss Rifle	DB, V, X	2	25/20/10	4	1–6	7–13	14–20	18	11	4	100
Improved Heavy Gauss	DB, X	2	22	3	1–6	7–12	13–19	20	11	4	100
Magshot Gauss Rifle	DB, X	1	2	0	1–3	4–6	7–9	0.5	2	50	100
Silver Bullet Gauss	C, DB, F, X	1	C1/15	2	1–7	8–15	16–22	15	7	8	100
LB 2-X AC	DB, S	1	2	4	1–9	10–18	19–27	6	4	45	98
LB 5-X AC	DB, S	1	5	3	1–7	8–14	15–21	8	5	20	98
LB 10-X AC	DB, S	2	10	0	1–6	7–12	13–18	11	6	10	98
LB 20-X AC	DB, S	6	20	0	1–4	5–8	9–12	14	11	5	98
Light AC/2	DB, S	1	2	0	1–6	7–12	13–18	4	1	45	98
Light AC/5	DB, S	1	5	0	1–5	6–10	11–15	5	2	20	98
Light Machine Gun	AI, DB	0	1	0	1–2	3–4	5–6	0.5	1	200	101
Machine Gun	AI, DB	0	2	0	1	2	3	0.5	1	200	101
Heavy Machine Gun	AI, DB	0	3	0	1	2	—	1	1	100	101
Light Rifle (Cannon)	DB	1	3**	0	1–4	5–8	9–12	3	1	18	106
Medium Rifle (Cannon)	DB	2	6**	1	1–5	6–10	11–15	5	2	9	106
Heavy Rifle (Cannon)	DB	4	9**	2	1–6	7–12	13–18	8	3	6	106
Rotary AC/2	DB, R	1/Sht	2/Sht, R6	0	1–6	7–12	13–18	8	3	45	98
Rotary AC/5	DB, R	1/Sht	5/Sht, R6	0	1–5	6–10	11–15	10	6	20	98
Ultra AC/2	DB, R	1/Sht	2/Sht, R2	3	1–8	9–17	18–25	7	3	45	99
Ultra AC/5	DB, R	1/Sht	5/Sht, R2	2	1–6	7–13	14–20	9	5	20	99
Ultra AC/10	DB, R	4/Sht	10/Sht, R2	0	1–6	7–12	13–18	13	7	10	99
Ultra AC/20	DB, R	8/Sht	20/Sht, R2	0	1–3	4–7	8–10	15	10	5	99
Direct-Fire Energy Weapons											
Binary (Blazer) Cannon	DE	16	12	0	1–5	6–10	11–15	9	4	—	100
Flamer	AI, DE, H	3	2**	0	1	2	3	1	1	—	99
ER Flamer	AI, DE, H	4	2**	0	1–3	4–5	6–7	1	1	—	99
Heavy Flamer	AI, DE, H	5	4**	0	1–2	3	4	1.5	1	10	99
Small Laser	DE	1	3	0	1	2	3	0.5	1	—	100
Medium Laser	DE	3	5	0	1–3	4–6	7–9	1	1	—	100
Large Laser	DE	8	8	0	1–5	6–10	11–15	5	2	—	100
ER Small Laser	DE	2	3	0	1–2	3–4	5	0.5	1	—	101
ER Medium Laser	DE	5	5	0	1–4	5–8	9–12	1	1	—	101
ER Large Laser	DE	12	8	0	1–7	8–14	15–19	5	2	—	101
Small Re-engineered Laser	P	4	4	0	1	2	3	1.5	1	—	101
Medium Re-engineered Laser	P	6	6	0	1–2	3–4	5–6	2.5	2	—	101
Large Re-engineered Laser	P	9	9	0	1–5	6–10	11–15	8	5	—	101
Small VSP Laser	AI, DE, V	3	5/4/3	0	1–2	3–4	5–6	2	1	—	101
Medium VSP Laser	AI, DE, V	7	9/7/5	0	1–2	3–5	6–9	4	2	—	101
Large VSP Laser	AI, DE, V	10	11/9/7	0	1–4	5–8	9–15	9	4	—	101
Plasma Rifle	DE, H	10	10**	0	1–5	6–10	11–15	6	2	10	106
Light PPC	DE	5	5	3	1–6	7–12	13–18	3	2	—	105
PPC	DE	10	10	3	1–6	7–12	13–18	7	3	—	105

INNER SPHERE WEAPONS (CONTINUED)

Item	Type*	Heat	Damage Value	Minimum Range	Short Range	Medium Range	Long Range	Tons	Critical Slots	Shots Per Ton	Page Ref
Direct-Fire Energy Weapons (continued)											
Heavy PPC	DE	15	15	3	1–6	7–12	13–18	10	4	—	105
ER PPC	DE	15	10	0	1–7	8–14	15–23	7	3	—	105
Snub-Nose PPC	DE, V	10	10/8/5	0	1–9	10–13	14–15	6	2	—	105
Pulse Weapons											
Small Pulse Laser	AI, P	2	3	0	1	2	3	1	1	—	101
Medium Pulse Laser	P	4	6	0	1–2	3–4	5–6	2	1	—	101
Large Pulse Laser	P	10	9	0	1–3	4–7	8–10	7	2	—	101
Small X-Pulse Laser	AI, P	3	3	0	1–2	3–4	5	1	1	—	101
Medium X-Pulse Laser	P	6	6	0	1–3	4–6	7–9	2	1	—	101
Large X-Pulse Laser	P	14	9	0	1–5	6–10	11–15	7	2	—	101
Missile Weapons[M]											
LRM 5	C, M, S	2	1/Msl, C5/5	6	1–7	8–14	15–21	2	1	24	103
LRM 10	C, M, S	4	1/Msl, C5/10	6	1–7	8–14	15–21	5	2	12	103
LRM 15	C, M, S	5	1/Msl, C5/15	6	1–7	8–14	15–21	7	3	8	103
LRM 20	C, M, S	6	1/Msl, C5/20	6	1–7	8–14	15–21	10	5	6	103
Enhanced LRM 5	C, M, S	2	1/Msl, C5/5	3	1–7	8–14	15–21	3	2	24	102
Enhanced LRM 10	C, M, S	4	1/Msl, C5/10	3	1–7	8–14	15–21	6	4	12	102
Enhanced LRM 15	C, M, S	5	1/Msl, C5/15	3	1–7	8–14	15–21	9	6	8	102
Enhanced LRM 20	C, M, S	6	1/Msl, C5/20	3	1–7	8–14	15–21	12	9	6	102
Extended LRM 5	C, M	3	1/Msl, C5/5	10	1–12	13–22	23–38	6	1	18	103
Extended LRM 10	C, M	6	1/Msl, C5/10	10	1–12	13–22	23–38	8	4	9	103
Extended LRM 15	C, M	8	1/Msl, C5/15	10	1–12	13–22	23–38	12	6	6	103
Extended LRM 20	C, M	10	1/Msl, C5/20	10	1–12	13–22	23–38	18	8	4	103
MML 3	C, M, S							1.5	2		103
LRM ammo	—	2	1/Msl, C3/3	6	1–7	8–14	15–21			40	
SRM ammo	—	2	2/Msl, C2/3	0	1–3	4–6	7–9			33	
MML 5	C, M, S							3	3		103
LRM ammo	—	3	1/Msl, C5/5	6	1–7	8–14	15–21			24	
SRM ammo	—	3	2/Msl, C2/5	0	1–3	4–6	7–9			20	
MML 7	C, M, S							4.5	4		103
LRM ammo	—	4	1/Msl, C5/7	6	1–7	8–14	15–21			17	
SRM ammo	—	4	2/Msl, C2/7	0	1–3	4–6	7–9			14	
MML 9	C, M, S							6	5		103
LRM ammo	—	5	1/Msl, C5/9	6	1–7	8–14	15–21			13	
SRM ammo	—	5	2/Msl, C2/9	0	1–3	4–6	7–9			11	
MRM 10	C, M	4	1/Msl, C5/10	0	1–3	4–8	9–15	3	2	24	103
MRM 20	C, M	6	1/Msl, C5/20	0	1–3	4–8	9–15	7	3	12	103
MRM 30	C, M	10	1/Msl, C5/30	0	1–3	4–8	9–15	10	5	8	103
MRM 40	C, M	12	1/Msl, C5/40	0	1–3	4–8	9–15	12	7	6	103
Narc Missile Beacon	M, S	0	**	0	1–3	4–6	7–9	3	2	6	104
Improved Narc Launcher	M, S	0	**	0	1–4	5–9	10–15	5	3	4	104
Rocket Launcher 10	C, M, OS	3	1/Msl, C5/10	0	1–5	6–11	12–18	0.5	1	OS	103
Rocket Launcher 15	C, M, OS	4	1/Msl, C5/15	0	1–4	5–9	10–15	1	2	OS	103
Rocket Launcher 20	C, M, OS	5	1/Msl, C5/20	0	1–3	4–7	8–12	1.5	3	OS	103

INNER SPHERE WEAPONS (CONTINUED)

Item	Type*	Heat	Damage Value	Minimum Range	Short Range	Medium Range	Long Range	Tons	Critical Slots	Shots Per Ton	Page Ref
SRM 2	C, M, S	2	2/Msl, C2/2	0	1–3	4–6	7–9	1	1	50	103
SRM 4	C, M, S	3	2/Msl, C2/4	0	1–3	4–6	7–9	2	1	25	103
SRM 6	C, M, S	4	2/Msl, C2/6	0	1–3	4–6	7–9	3	2	15	103
Streak SRM 2	C, M	2	2/Msl, C2/2	0	1–3	4–6	7–9	1.5	1	50	104
Streak SRM 4	C, M	3	2/Msl, C2/4	0	1–3	4–6	7–9	3	1	25	104
Streak SRM 6	C, M	4	2/Msl, C2/6	0	1–3	4–6	7–9	4.5	2	15	104
Thunderbolt 5	M	3	5	5	1–6	7–12	13–18	3	1	12	104
Thunderbolt 10	M	5	10	5	1–6	7–12	13–18	7	2	6	104
Thunderbolt 15	M	7	15	5	1–6	7–12	13–18	11	3	4	104
Thunderbolt 20	M	8	20	5	1–6	7–12	13–18	15	5	3	104
Artillery Weapons											
Arrow IV	**	10	20**	0	**	**	**	15	15	5	97
Physical Attack Weapons											
Vibroblade, Small	—	3	7**	—	—	—	—	3	1	—	109
Vibroblade, Medium	—	5	10**	—	—	—	—	5	2	—	109
Vibroblade, Large	—	7	14**	—	—	—	—	7	4	—	109
Special											
Active Probe, Beagle	E	0	—	—	—	—	4	1.5	1	—	110
Active Probe, Bloodhound	E	0	—	—	—	—	8	2	3	—	110
Anti-Missile System	PB	1	—	—	—	—	—	0.5	1	12	118
Anti-Missile System, Laser	PB	7	—	—	—	—	—	1.5	2	—	118
ECM Suite, Angel	E	0	—	—	—	—	6	2	2	—	112
ECM Suite, Guardian	E	0	—	—	—	—	6	1.5	2	—	112
M-Pod	C, OS, V, X	0	15/10/5	0	1	2	3	1	1	OS	101
Target Acquisition Gear (TAG)	E	0	—	0	1–5	6–10	11–15	1	1	—	113

* See *Weapon Types*, pages 96-97, for an explanation of each Type.

** Follow the Page Ref entry for this item to see the full details.

M Missile Weapons display their Damage Value uniquely; e.g. an LRM 20 is "1/Msl, C5/20", meaning each missile does 1 point of damage (1/Msl), the largest Damage Value grouping is 5 (C5), and that 20 missiles are fired with each shot (/20).

CLAN WEAPONS

Item	Type*	Heat	Damage Value	Minimum Range	Short Range	Medium Range	Long Range	Tons	Critical Slots	Shots Per Ton	Page Ref
Direct-Fire Ballistic Weapons											
LB 2-X AC	DB, S	1	2	4	1–10	11–20	21–30	5	3	45	98
LB 5-X AC	DB, S	1	5	3	1–8	9–15	16–24	7	4	20	98
LB 10-X AC	DB, S	2	10	0	1–6	7–12	13–18	10	5	10	98
LB 20-X AC	DB, S	6	20	0	1–4	5–8	9–12	12	9	5	98
AP Gauss Rifle	AI, DB, X	1	3	0	1–3	4–6	7–9	0.5	1	40	99
Gauss Rifle	DB, X	1	15	2	1–7	8–15	16–22	12	6	8	99
HAG 20	C, DB, F, X	4	C5/20	2	1–8	9–16	17–24	10	6	6	100
HAG 30	C, DB, F, X	6	C5/30	2	1–8	9–16	17–24	13	8	4	100
HAG 40	C, DB, F, X	8	C5/40	2	1–8	9–16	17–24	16	10	3	100
Light Machine Gun	AI, DB	0	1	0	1–2	3–4	5–6	0.25	1	200	101
Machine Gun	AI, DB	0	2	0	1	2	3	0.25	1	200	101
Heavy Machine Gun	AI, DB	0	3	0	1	2	—	0.5	1	100	101
ProtoMech AC/2	DB, S	1	2	0	1–7	8–14	15–20	3.5	2	40	98
ProtoMech AC/4	DB, S	1	4	0	1–5	6–10	11–15	4.5	3	20	98
ProtoMech AC/8	DB, S	2	8	0	1–3	4–7	8–10	5.5	4	10	98
Rotary AC/2	DB, R	1/Sht	2/Sht, R6	0	1–8	9–17	18–25	8	4	45	98
Rotary AC/5	DB, R	1/Sht	5/Sht, R6	0	1–7	8–14	15–21	10	8	20	98
Ultra AC/2	DB, R	1/Sht	2/Sht, R2	2	1–9	10–18	19–27	5	2	45	99
Ultra AC/5	DB, R	1/Sht	5/Sht, R2	0	1–7	8–14	15–21	7	3	20	99
Ultra AC/10	DB, R	3/Sht	10/Sht, R2	0	1–6	7–12	13–18	10	4	10	99
Ultra AC/20	DB, R	7/Sht	20/Sht, R2	0	1–4	5–8	9–12	12	8	5	99
Direct-Fire Energy Weapons											
Chemical Laser, Small	DE	1	3	0	1	2	3	0.5	1	60	100
Chemical Laser, Medium	DE	2	5	0	1–3	4–6	7–9	1	1	30	100
Chemical Laser, Large	DE	6	8	0	1–5	6–10	11–15	5	2	10	100
Flamer	AI, DE, H	3	2**	0	1	2	3	0.5	1	—	99
ER Flamer	AI, DE, H	4	2**	0	1–2	3–4	5–7	1.5	1	—	99
Heavy Flamer	AI, DE, H	5	4**	0	1	2	3–4	1	1	10	99
ER Micro Laser	DE	1	2	0	1	2	3–4	0.25	1	—	101
ER Small Laser	DE	2	5	0	1–2	3–4	5–6	0.5	1	—	101
ER Medium Laser	DE	5	7	0	1–5	6–10	11–15	1	1	—	101
ER Large Laser	DE	12	10	0	1–8	9–15	16–25	4	1	—	101
Heavy Small Laser	DE	3	6	0	1	2	3	0.5	1	—	101
Heavy Medium Laser	DE	7	10	0	1–3	4–6	7–9	1	2	—	101
Heavy Large Laser	DE	18	16	0	1–5	6–10	11–15	4	3	—	101
Improved Heavy Small Laser	DE, X	3	6	0	1	2	3	0.5	1	—	101
Improved Heavy Medium Laser	DE, X	7	10	0	1–3	4–6	7–9	1	2	—	101
Improved Heavy Large Laser	DE, X	18	16	0	1–5	6–10	11–15	4	3	—	101
Plasma Cannon	DE, H	7	0**	0	1–6	7–12	13–18	3	1	10	106
ER PPC	DE	15	15	0	1–7	8–14	15–23	6	2	—	105

CLAN WEAPONS (CONTINUED)

Item	Type*	Heat	Damage Value	Minimum Range	Short Range	Medium Range	Long Range	Tons	Critical Slots	Shots Per Ton	Page Ref
Pulse Weapons											
Micro Pulse Laser	AI, P	1	3	0	1	2	3	0.5	1	—	101
Small Pulse Laser	AI, P	2	3	0	1–2	3–4	5–6	1	1	—	101
Medium Pulse Laser	P	4	7	0	1–4	5–8	9–12	2	1	—	101
Large Pulse Laser	P	10	10	0	1–6	7–14	15–20	6	2	—	101
ER Pulse Small Laser	AI, P	3	5	0	1–2	3–4	5–6	1.5	1	—	101
ER Pulse Medium Laser	P	6	7	0	1–5	6–9	10–14	2	2	—	101
ER Pulse Large Laser	P	13	10	0	1–7	8–15	16–23	6	3	—	101
Missile Weapons[M]											
ATM 3	C, M, S	2	2/Msl, C5/3	4	1–5	6–10	11–15	1.5	2	20	102
ATM 6	C, M, S	4	2/Msl, C5/6	4	1–5	6–10	11–15	3.5	3	10	102
ATM 9	C, M, S	6	2/Msl, C5/9	4	1–5	6–10	11–15	5	4	7	102
ATM 12	C, M, S	8	2/Msl, C5/12	4	1–5	6–10	11–15	7	5	5	102
ATM ER Ammo	—	**	1/Msl, C5/**	4	1–9	10–18	19–27	**	**	**	
ATM HE Ammo	—	**	3/Msl, C5/**	0	1–3	4–6	7–9	**	**	**	
Narc Missile Beacon	M, S	0	**	0	1–4	5–8	9–12	2	1	6	104
LRM 5	C, M, S	2	1/Msl, C5/5	0	1–7	8–14	15–21	1	1	24	103
LRM 10	C, M, S	4	1/Msl, C5/10	0	1–7	8–14	15–21	2.5	1	12	103
LRM 15	C, M, S	5	1/Msl, C5/15	0	1–7	8–14	15–21	3.5	2	8	103
LRM 20	C, M, S	6	1/Msl, C5/20	0	1–7	8–14	15–21	5	4	6	103
SRM 2	C, M, S	2	2/Msl, C2/2	0	1–3	4–6	7–9	0.5	1	50	103
SRM 4	C, M, S	3	2/Msl, C2/4	0	1–3	4–6	7–9	1	1	25	103
SRM 6	C, M, S	4	2/Msl, C2/6	0	1–3	4–6	7–9	1.5	1	15	103
Streak SRM 2	C, M	2	2/Msl, C2/2	0	1–4	5–8	9–12	1	1	50	104
Streak SRM 4	C, M	3	2/Msl, C2/4	0	1–4	5–8	9–12	2	1	25	104
Streak SRM 6	C, M	4	2/Msl, C2/6	0	1–4	5–8	9–12	3	2	15	104
Streak LRM 5	C, M	2	1/Msl, C5/5	0	1–7	8–14	15–21	2	1	24	104
Streak LRM 10	C, M	4	1/Msl, C5/10	0	1–7	8–14	15–21	5	2	12	104
Streak LRM 15	C, M	5	1/Msl, C5/15	0	1–7	8–14	15–21	7	3	8	104
Streak LRM 20	C, M	6	1/Msl, C5/20	0	1–7	8–14	15–21	10	5	6	104
Artillery Weapons											
Arrow IV	**	10	20**	0	**	**	**	12	12	5	97
Special											
Active Probe	E	0	—	—	—	—	5	1	1	—	109
Active Probe, Light	E	0	—	—	—	—	3	0.5	1	—	110
Anti-Missile System	PB	1	—	—	—	—	—	0.5	1	24	118
Anti-Missile System, Laser	PB	5	—	—	—	—	—	1	1	—	118
ECM Suite	E	0	—	—	—	—	6	1	1	—	112
ECM Suite, Angel	E	0	—	—	—	—	6	2	2	—	113
Target Acquisition Gear (TAG)	E	0	—	0	1–5	6–10	11–15	1	1	—	113
TAG, Light	E	0	—	0	1–3	4–6	7–9	0.5	1	—	114
Watchdog CEWS	E	0	—	—	—	—	3	1.5	2	—	114

* See *Weapon Types*, pages 96-97, for an explanation of each Type.

** Follow the Page Ref entry for this item to see the full details.

M Missile Weapons display their Damage Value uniquely; e.g. an LRM 20 is "1/Msl, C5/20", meaning each missile does 1 point of damage (1/Msl), the largest Damage Value grouping is 5 (C5), and that 20 missiles are fired with each shot (/20).

INNER SPHERE EQUIPMENT

Equipment	Tons	Critical Slots	Page Ref
Armor			
Standard	—	0	N/A
Primitive	—	0	N/A
Ballistic-Reinforced	—	10	114
Ferro-Fibrous, Light	—	7	114
Ferro-Fibrous	—	14	114
Ferro-Fibrous, Heavy	—	21	114
Hardened	—	0	114
Laser-Reflective	—	10	114
Stealth	—	12*	115
Cockpits			
Standard	3	—	47
Primitive	3	—	47
Small	2	*	47, 115
Torso-Mounted	4	*	47, 115
Electronics			
Artemis IV FCS	1	1*	110
C^3 Computer, Master	5	5	110
C^3 Computer, Slave	1	1	110
C^3 Boosted System, Master	6	6	112
C^3 Boosted System, Slave	3	2	112
C^3I Computer	2.5	2	112
MRM "Apollo" FCS	1	1*	113
Targeting Computer	*	*	114
Engines			
Standard	—	6*	47
Compact	—	3*	47
Light	—	10*	47
XL	—	12*	47
XXL	—	18*	115
Gyros			
Compact	—	2*	48
Standard	—	4*	48
Heavy-Duty	—	4*	48, 115
XL	—	6*	48
Maneuverability Aids			
Jump Jet, Standard	*	1*	14
Jump Jet, Improved	*	2*	14
MASC	*	*	116
Mechanical Jump Boosters	*	*	116
Partial Wing	*	8*	116
Supercharger	*	1*	116
Triple-Strength Myomer	0	6	117
UMU	*	1*	19, 117

Equipment	Tons	Critical Slots	Page Ref
Munition Bins			
AC – Armor-Piercing	1	1	106
AC – Caseless	1	1	106
AC – Cluster	1	1	106
AC – Flechette	1	1	107
AC – Precision	1	1	107
Missile – Artemis IV	1	1	107
Missile – Fragmentation	1	1	107
Missile – Inferno	1	1	107
Missile – Narc-Equipped	1	1	107
Missile – Semi-Guided	1	1	107
Narc – ECM	1	1	108
Narc – Explosive	1	1	108
Narc – Haywire	1	1	108
Narc – Homing (Narc)	1	1	108
Narc – Homing (iNarc)	1	1	108
Narc – Nemesis	1	1	108
Physical Weapons			
Claws	*	*	108
Flail	5	4	109
Hatchet	*	*	109
Lance	*	*	109
Mace	*	*	109
Retractable Blade	*	*	109
Sword	*	*	109
Vibroblade	*	*	109
Structure			
Standard	—	0	N/A
Composite	—	0	117
Endo-Composite	—	7	117
Endo-Steel	—	14	117
Reinforced	—	0	117
Miscellaneous Equipment			
AES	*	*	118
Armored Component	*	0	118
CASE	0.5	1	118
CASE II	1	1	119
Coolant Pod	1	1	119
Full-Head Ejection System	0	0	115
Heat Sink	1	1	51
Heat Sink, Double	1	3	51
Machine Gun Array	0.5	1*	102
OS Missile Launcher	—	—	103
OS Missile Launcher, Improved	—	—	103
PPC Capacitor	1	1*	105

*This item's tonnage and/or critical slot placement requires construction rules not covered in this book.

CLAN EQUIPMENT

Equipment	Tons	Critical Slots	Page Ref
Armor			
Standard	—	0	N/A
Ferro-Fibrous	—	7	114
Ferro-Lamellor	—	12	114
Hardened	—	0	114
Laser-Reflective	—	5	114
Cockpits			
Standard	3	—	47
Small	2	*	47, 115
Torso-Mounted	4	*	47, 115
Electronics			
Artemis IV FCS	1	1*	110
Artemis V FCS	1.5	2*	110
Targeting Computer	*	*	114
Engines			
Standard	—	6*	47
XL	—	10*	47
XXL	—	14*	115
Gyros			
Standard	—	4*	48
Maneuverability Aids			
Jump Jet, Standard	*	1*	14
Jump Jet, Improved	*	2*	14
MASC	*	*	116
Partial Wing	*	6*	116
Supercharger	*	1*	116
UMU	*	1*	19, 117

Equipment	Tons	Critical Slots	Page Ref
Munition Bins			
AC – Cluster	1	1	106
Missile – Artemis IV	1	1	107
Missile – Artemis V	1	1	107
Missile – Inferno	1	1	107
Missile – Narc-Equipped	1	1	107
Narc – Homing (Narc)	1	1	108
PAC – Armor-Piercing	1	1	106
PAC – Caseless	1	1	106
PAC – Flechette	1	1	107
Physical Weapons			
Claws	*	*	108
Talons	*	*	109
Structure			
Standard	—	0	N/A
Composite	—	0	117
Endo-Composite	—	4	117
Endo-Steel	—	7	117
Reinforced	—	0	117
Miscellaneous Equipment			
AES	*	*	118
Armored Component	*	0	118
CASE	0*	0*	118
CASE II	0.5	1	119
Coolant Pod	1	1	119
Full-Head Ejection System	0	0	115
Heat Sink	1	1	51
Heat Sink, Double	1	2	51
Machine Gun Array	0.25	1*	102
OS Missile Launcher	—	—	103
OS Missile Launcher, Improved	—	—	103
PPC Capacitor	1	1*	105

* This item's tonnage and/or critical slot placement requires construction rules not covered in this book.

COMMON MISCONCEPTIONS

BattleTech has been played for more than thirty years, and one of its great strengths is that the rules, especially related to BattleMechs, haven't really changed all that much—greatly expanded, yes, but not radically changed. Nonetheless, over time a number of rules misconceptions have arisen, sometimes due to readings of more vaguely worded rules text in much earlier rulebooks, and sometimes simply due to the rules drift that can occur across the history of any popular game.

The following lists some of the most common misconceptions we've encountered, broken down in chapter order. The initial statement that is bolded and in italics is the misconception.

PLAYING THE GAME

1. ***"Immobile 'Mechs can't be given a move order."***

Unless a 'Mech is destroyed, it can be always be the subject of a movement selection. Thus, immobile 'Mechs (see p. 16) can indeed be given a movement selection, even though they can't actually move. This means they can be used as "initiative sinks" to allow moveable 'Mechs to act later in Initiative order.

2. ***"Rolling a 12 is always a hit, even if the Target Number for an attack, Piloting Skill Roll, etc. is higher than 12. Also, rolling a 2 is always a failure, even if the Target Number is 2 or lower."***

If the Target Number is higher than a 12, it is impossible to succeed. Likewise, if the Target Number is lower than a 2, it is impossible to fail the roll.

However, even with auto-success or auto-failure, you still need to roll if using a rapid-fire weapon or other items that have effects dependent on your roll result.

MOVEMENT

1. ***"A 'Mech that is reduced to 0 MP for any reason is considered immobile."***

There are several conditions under which a 'Mech has 0 MP, but is not considered immobile (as each hex covers thirty meters, there's lots of room for a 'Mech to thrash around in even if it can't actually leave that space). Immobile is a very specific rules status, as defined on page 16; if the rules don't specifically state that a 'Mech is immobile, then it is not.

2. ***"A 'Mech can make level changes while moving backwards."***

'Mechs may not move up or down hills (i.e. make level changes) while moving backwards (unless the optional *Backward Level Changes* rule is in effect; see p. 15).

3. ***"A 'Mech can run into water."***

'Mechs are not allowed to run into a water hex of Depth 1 or greater. 'Mechs may only walk or jump into such hexes. Note that they can use running movement to change facings in water, and/or to move directly from a water hex to a land hex.

4. ***"Entering Depth 1 water from a level 0 hex costs 2 MP."***

Entering Depth 1 water from a Level 0 hex costs 3 MP.

It always costs 1 MP to enter any hex. In addition, it costs 1 MP for changing from Level 0 to Depth 1, and 1 MP to enter a Depth 1 water hex. Thus, it costs 3 MP to enter Depth 1 water, and they must be Walking or Jumping MP, not Running MP, as explained above.

If a 'Mech attempts to enter a Depth 2 water hex from Level 0, it would cost 1 MP to enter any hex, 2 MP for changing two levels from 0 to Depth 2 and 3 MP for entering a Depth 2 water hex. Total MP spent = 6 MP.

5. ***"When jumping, you have to pay 1 MP extra for each level you move over. So jumping over a Level 6 hex would cost 7 MP."***

Jumping costs 1 MP per hex regardless of the terrain in that hex. So long as a 'Mech has sufficient MP to legally move over the level of the hex (see p. 14), moving through/over it costs 1 MP, whether it be a clear hex or a Level 10 hex.

6. ***"A 'Mech can crawl from one hex to another hex."***

If a 'Mech is prone for any reason, it may change facing in its hex or it may attempt to stand, but it may not crawl to an adjacent hex.

COMBAT

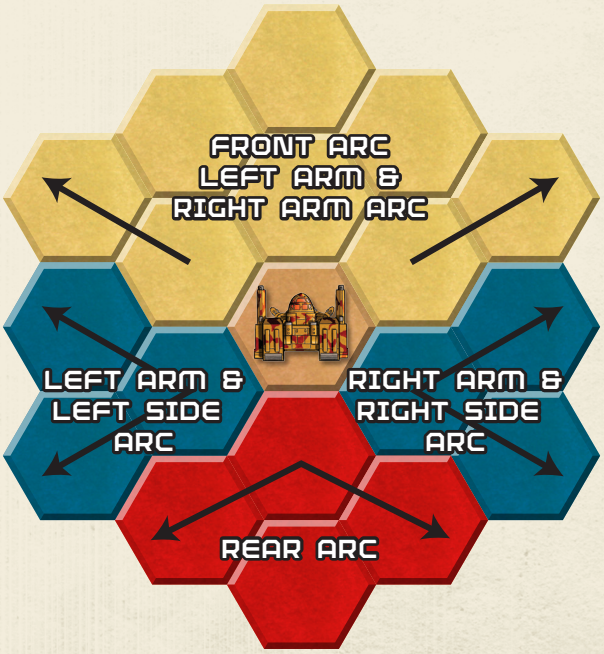
1. *"A 'Mech standing in light woods can't be seen by an enemy if there's two hexes of light woods between the two 'Mechs, but it can still shoot out at the enemy."*

LOS is only affected by *intervening* terrain (see p. 22), and any terrain a 'Mech is in (whether as attacker or target) isn't intervening. Therefore, standing in one hex of light woods and having two hexes of light woods between a 'Mech and its attacker does not block LOS in either direction.

Remember that LOS is always mutual. If you can see a target, it can see you.

2. *"Firing arcs are the same as damage arcs."*

The two arcs are not the same. However, we recognize that while every rules publication on the matter has provided two separate diagrams outlining the differences, the diagram to illustrate a 'Mech's damage arc left a lot to be desired. We've placed the Firing Arcs Diagram and the Attack Direction Diagram side by side below, so that you can see how they differ.



• FIRING ARCS DIAGRAM •

• ATTACK DIRECTION DIAGRAM (WHITE HEXES = TARGET'S CHOICE) •

Note that there are no blind spots in firing arcs: every hex belongs to one of the four firing arcs.

3. *"A 'Mech can torso twist to change where an attacker's damage will strike it. If 'Mech A moves into the rear damage arc of 'Mech B, 'Mech B can torso twist and any damage from 'Mech A will instead strike 'Mech B's left or right side (depending on which way it twisted)."*

Torso twisting only affects a 'Mech's upper-body firing arcs, never the damage arcs against it. Thus, a 'Mech cannot torso twist to avoid getting shot in the back.

4. *"The only 'Mechs that can flip their arms are those specifically mentioned as such in their TRO text/other source (like the* Rifleman*)."*

Any 'Mech designed without *both* hand and lower arm actuators (like the *UrbanMech*)—as well as any OmniMech configuration lacking these actuators—can flip *both* its arms (not just one arm). But it must be capable of flipping both arms: a 'Mech with just one arm lacking these actuators cannot flip even that one arm—it's all or nothing.

5. *"Minimum range modifiers are not applied against a target that is exactly at minimum range. For example, if firing a PPC (minimum range of 3), if the target is 3 hexes away then no minimum range penalty is applied."*

Minimum range always includes the full number of hexes. If a weapon has a minimum range of 6 hexes, then the minimum range Target Number modifier begins being calculated there: +1 at 6 hexes, +2 at 5, and so forth.

6. *"If I spot a target for indirect fire, that lets me use TAG-guided munitions against that target."*

Hitting a target with TAG (see p. 58) also spots that target for indirect fire (see p. 30). However, the reverse is not true: spotting a target for indirect fire in no way helps TAG-guided munitions.

7. *"You declare and immediately resolve attacks on a 'Mech by 'Mech basis."*

Declaration and resolution are two separate stages. Only after all attacks by all players are declared do you begin resolving them

8. *"If a 'Mech has partial cover, then attackers roll on the Punch Hit Location Table when assigning hits to it."*

This was true until 2006, when *Total Warfare* was released. At that time, the rules were changed so that 'Mechs with partial cover receive a +1 Target Number modifier, the standard Hit Location Table is used, and any hit that would strike the cover is ignored (and not re-rolled).

9. *"A prone 'Mech that has lost an arm can still fire any torso weapons it has during the Weapon Attack Phase."*

A prone 'Mech requires both arms to fire its torso weapons, although the weapons in one arm can fire as well in this case (unless using the *One-Armed Prone Fire* option; see p. 30).

10. *"Piloting Skill Rolls and rolling to hit for physical attacks are the same, so, for example, the +1 PSR modifier from having a small cockpit makes a 'Mech's physical attacks more difficult."*

Physical attacks are not Piloting Skill Rolls: modifiers that only affect Piloting Skill Rolls do not affect physical attacks, and vice versa.

11. *"Charge attacks must be made in a straight line to the target, and must be made using Running movement."*

A charge need neither be made in a straight line or by the shortest route. So long as the charging 'Mech has sufficient MP, it is allowed to go around terrain or enemy 'Mechs that are blocking its path to the target.

A charge can be made using either Walking or Running movement; only Jumping is forbidden (unless the charge is being made underwater; in this case, it can be made if the charging 'Mech uses UMUs; see p. 35).

12. *"A 'Mech can attack with two physical weapons in the same phase."*

A 'Mech may only ever make one physical weapon attack in the Physical Attack Phase, unless using claws (see p. 108). A 'Mech may make two punch attacks in the same phase, but a punch is not a physical weapon attack (it's a punch attack).

If using the optional *Piercing* rules (see p. 109), a 'Mech can immediately make a follow-on retractable blade attack after landing a punch with the same arm.

13. *"A successful hatchet attack always rolls on the Punch Hit Location Table to determine damage location."*

Hatchet attacks (as well as mace, sword, or retractable blade attacks) by default roll on the regular Hit Location Table. However, if attacking with one of these four weapons, the attacker can choose to roll on the Punch or Kick Hit Location Table instead, but *only* if this intention was declared, and a +4 Target Number modifier applied, *prior* to the attack roll.

Only claws always roll on the Punch Hit Location Table. Flails (and clubs, which are not physical weapons but occupy their own unique category) always roll on the regular Hit Location Table.

14. *"Push attacks can be made against any enemy 'Mech that is within the three hexes of the pusher's front arc. A 'Mech is allowed to torso twist to push an enemy located in its side arc."*

Push attacks may only be made against an enemy 'Mech that is directly in front of the pushing 'Mech, and torso twists have no effect on this. Remember that at the end of a successful push attack, the pusher moves into the enemy's hex.

DAMAGE

1. *"The player making the attack is the one that rolls the locations of any critical hits that result."*

Since the very earliest editions of the game, while the attacker rolls on the Determining Critical Hits Table, the controller of the 'Mech that is taking the damage is the one that rolls to see where any critical hits to that 'Mech go.

However, as far as we can tell, nobody ever plays that way. As such, we've changed the rule to match common usage: the attacker now does indeed roll the location of any critical hits.

2. *"Critical hits on locations that don't have anything in them are wasted."*

If a 'Mech suffers a critical hit in a location that, at the start of the phase, had nothing that could be damaged (i.e. all slots in the location were inapplicable at the start of the phase; see p. 46), then the critical hit is applied to an adjacent location, as dictated by the Damage Transfer Diagram (see p. 43).

3. *"Since you resolve damage as it happens, if my 'Mech is destroyed in an attack phase before I've resolved my attacks, I don't get to attack back."*

There is a difference between damage resolution and applying the gameplay effects of damage. Always remember that all declared attacks must be resolved; they are only resolved one at a time as a way of figuring out exactly what happens. In the end, every player always gets the chance to make the attacks they declared in a phase, even if an attacking 'Mech loses the weapons it is attacking with in that phase, or is destroyed in that phase.

4. *"If you destroy the gyro, you destroy the 'Mech."*

While a destroyed gyro is very detrimental, a 'Mech without a gyro is not even considered immobile (see p. 16), let alone destroyed under standard *BattleTech* rules. Only if using the optional *Forced Withdrawal* rules (see p. 81) does destroying a gyro also destroy that 'Mech.

5. ***"When rolling for critical damage against a 'Mech's torso or arm, if the 'Mech has items in both blocks of slots (i.e. the first block of six slots, labeled "1–3", and the second block of six, labeled "4–6"), check to see if the second block only has one item in it. If it does, and the first D6 roll for critical damage indicates that equipment in the lower block was damaged, then the lone item is automatically damaged."***

The second D6 roll is always made. If the result indicates a hit on a "roll again" result, the entire process for determining which block and which item is hit starts over.

6. ***"All combat is simultaneous, so if 'Mech A hits 'Mech B with two weapons (say, two PPCs) it doesn't matter which order the damage is resolved."***

"All combat is simultaneous" is a slightly misleading way of stating the rule that all declared attacks must be resolved. However, the order of resolution matters.

If a PPC hits 'Mech B's left rear torso and does exactly enough damage to eliminate all the remaining internal structure there (which also destroys the attached left arm) and then a second PPC hits 'Mech B's left arm, the damage will be transferred all the way to 'Mech B's center torso rear. If the rear armor and internal structure of the center torso could absorb less than 10 points of damage, 'Mech B would be destroyed.

If, however, the order of resolution were reversed (the first PPC hits the left arm and then the second PPC hits the left torso), so long as the left arm had enough armor and/or internal structure remaining to absorb 10 points of damage, no damage from those attacks would be done to 'Mech B's center torso and 'Mech B would not be destroyed.

7. ***"Destroyed 'Mechs remain in the hex they were destroyed in and block other 'Mechs from entering the hex."***

Destroyed 'Mechs are removed from the map. Their carcasses have no effect on the game (unless using the optional *Wreckage* rules; see p. 49).

An Archer *ARC-2R's left torso contains 7 equipment items. The upper block of equipment contains an LRM 20 launcher (5 slots) and one of its tons of LRM 20 ammo (1 slot). The lower block of equipment contains a lone ton of LRM 20 ammo (1 slot). Should the* Archer *suffer a critical hit in the left torso, its attacker would roll a D6 first to determine which block—upper or lower—the critical damage is to be applied, and roll another D6 to determine which slot in that block to apply the critical damage to. A final result of "roll again" (or an inapplicable slot such as endo-steel, TSM, CASE, etc.; see* Inapplicable Slots, *p. 46) means that the entire process starts over with the* Archer's *attacker rolling to see which block—upper or lower—to apply the critical damage.*

Left Torso

1-3	1.	LRM 20
	2.	LRM 20
	3.	LRM 20
	4.	LRM 20
	5.	LRM 20
	6.	Ammo (LRM) 6
4-6	1.	Ammo (LRM) 6
	2.	Roll Again
	3.	Roll Again
	4.	Roll Again
	5.	Roll Again
	6.	Roll Again

HEAT

1. ***"A player must make all rolls for shutdown avoidance and ammo explosion avoidance that are below their 'Mech's heat level."***

A player must only pass the shutdown avoidance roll and the ammo explosion avoidance rolls with the highest applicable Target Number. For example, a player whose 'Mech is at 22 heat would have make two rolls, one needing an 8+ to avoid shutting down, and the other at 4+ to avoid an ammo explosion.

A MechWarrior does have to make all Consciousness Rolls required (see p. 58), however, which is perhaps where the confusion stems from.

OTHER ACTIONS

1. ***"Piloting Skill Rolls don't stack. If a 'Mech suffers a gyro hit and a foot actuator hit in the same turn that it takes 20+ points of damage, it only makes a single PSR with a +5 modifier."***

PSRs do indeed stack. A 'Mech that suffers a gyro hit, foot actuator hit, and 20 or more points of damage in the same phase would have to make three PSRs, and each one would have a +5 modifier (+3 for the gyro, +1 for the foot actuator, and +1 for the 20+ points of damage).

The only case where PSRs do not stack is when a 'Mech is missing a leg and makes an attempt to stand. In this case, only one PSR is required by the 'Mech, no matter how many might be triggered by the attempt. However, all applicable modifiers are still applied to that one roll.

2. ***"A 'Mech doesn't need to make a Piloting Skill Roll for jumping into water hexes."***

A PSR is required every time a 'Mech enters a water hex.

3. ***"A 'Mech needs to make a Piloting Skill Roll for jumping into woods hexes."***

No PSR is required for a 'Mech to jump into a woods hex.

4. ***"Once a 'Mech is in water, it doesn't need to make a Piloting Skill Roll for entering adjacent water hexes."***

A PSR is required every time a 'Mech enters a water hex.

5. ***"The modifier to Piloting Skill Rolls for taking 20+ points of damage in a phase is cumulative. So, it's +1 if I take 20 or more points of damage, but +2 if I take 40, and so on."***

In the standard rules, the modifier is only ever +1, whether the damage taken in a phase is 20 points or 200. Only if using the *Expanded Damage Modifiers* optional rule (see p. 55) does it work as presumed above.

6. ***"When a 'Mech falls, it falls into an adjacent hex as indicated by the Facing After Fall Table."***

A 'Mech falls into its own hex. The Facing After Fall Table is only used to determine which side the 'Mech fell onto, so that the damage from the fall can be applied to the correct locations.

7. ***"Piloting Skill Rolls made to see if the MechWarrior is injured after a fall aren't modified."***

All modifiers applied to the PSR that caused the fall are also applied to the PSR to see if the MechWarrior is damaged by that fall, with an additional +1 modifier applied for every level above 1 fallen.

SPECIAL-CASE RULES

1. ***"Hidden 'Mechs can't spot for indirect fire."***

Hidden 'Mechs can indeed spot for indirect fire without being revealed.

WEAPONS & EQUIPMENT

1. ***"ECM affects Streak missiles."***

Standard ECM has no effect whatsoever on Streak launchers; only Angel ECM (see p. 113) affects them. For the list of the equipment affected by standard ECM, see page 112.

MOVEMENT COSTS TABLE

Movement Action/Terrain Type	MP Cost Per Hex/Terrain Cost	Piloting Skill Roll
Cost to Enter Any Hex	1	—
Terrain Cost When Entering Any New Hex		
Clear	+0	—
Paved/Bridge	+0	—
Road	+0*	—
Rough	+1	—
Sand	+0	+1
Light woods	+1	—
Heavy woods	+2	—
Light jungle	+2	+1
Heavy jungle	+3	+2
Water		
Depth 1	+1† (Level change MP cost not included)	–1
Depth 2+	+3† (Level change MP cost not included)	+0 (+1 if Depth 3+)
Level change (up or down)		
1 level	+1	—
2 levels	+2	—
Rubble	+1	+0
Light building	+1	‡
Medium building	+2	‡
Heavy building	+3	‡
Hardened building	+4	‡
Additional Movement Actions		
Facing change	1/hexside	—
Dropping to the ground	1	—
Standing up	2/attempt	+0
Terrain Modifications		
Ice	+1	+3§
Mud	+1	+1§
Deep Snow	+1	+1§
Swamp	+1	+1§
Weather Conditions		
Light Fog	+1	—
Heavy Fog	+2	—
Full Moon Night	+1**	—
Moonless Night	+2**	—

* If traveling along road; otherwise cost of underlying terrain.
† MP cost to move along the bottom of the water hex.
‡ Piloting Skill Roll required to prevent damage. The roll is modified for the 'Mech's movement per the Building Movement Modifiers Table (see p. 67).
§ This penalty applies to all PSRs made in this hex (including the PSR made when entering it).
**A 'Mech with an activated searchlight ignores this penalty.

ATTACK MODIFIERS TABLE

All Attacks: Weapons and Physical	Modifier
Attacker	
Movement (modifiers are cumulative)	
Stationary	None
Walked	+1
Ran	+2
Jumped	+3
Prone	+2 (does not apply to four-legged 'Mechs)
Skidding	+1
Terrain *(modifiers are cumulative)*	
Light Woods/Jungle	+1 per intervening hex; +1 if target in light woods/jungle
Heavy Woods/Jungle	+2 per intervening hex; +2 if target in heavy woods/jungle
Water*	
Depth 1	+1; see *Partial Cover*, p. 26
Depth 2	Underwater 'Mechs cannot target units that are not underwater (see *Terrain Modifiers*, p. 26).
Partial Cover	+1; see *Partial Cover*, p. 26
Target *(modifiers are cumulative)*	
Prone	–2 from adjacent hex; +1 from all others†
Immobile	–4
Skidding	+2
Movement	
Moved 0–2 hexes	0
Moved 3–4 hexes	+1
Moved 5–6 hexes	+2
Moved 7–9 hexes	+3
Moved 10–17 hexes	+4
Moved 18–24 hexes	+5
Moved 25+ hexes	+6
Jumped	+1 additional
Stealth Armor	+1 at medium range, +2 at long range

Weapon Attacks Only	Modifier
Attacker	
'Mech Damage	
Sensor hit	+2
Shoulder hit	+4 for weapons in arm, disregard other damaged actuators in arm
Upper or lower arm actuator (each)	+1 for weapons in arm
Heat	
0–7	None
8–12	+1
13–16	+2
17–23	+3
24+	+4
Making Indirect Fire attack	+1 (+2 if the spotter also attacked this turn)
Spotting for Indirect Fire	+1

ATTACK MODIFIERS TABLE (CONTINUED)

Weapon Attacks Only (Continued)	Modifier
Range and Terrain	
Range	
Short	None
Medium	+2
Long	+4
Minimum range	[Minimum] – [Target Range] +1 (see *Minimum Range Modifier*, p. 27)
Each Intervening Hex/Level between Attacker and Target (as well as target's hex) in same multi-hex building	+1 per hex/level (maximum +3; see *Combat Within Buildings*, p. 72)
Target	
Secondary target in forward arc	+1
Secondary target in side or rear arc	+2
Weather Conditions	
Heavy Fog	+1 to all attacks of the pulse (P) and direct-fire energy (DE) types
Light	
Dusk/Dawn	+1
Full Moon Night	+2; Ignore if the target is illuminated
Moonless Night	+3; Ignore if the target is illuminated
Moderate/Heavy Rain	+1
Torrential Downpour	+2
Moderate/Heavy Snow	+1
Wind	
Moderate Gale	+1 to all attacks of the missile (M) type (see p. 97)
Strong Gale	+2 to all attacks of the missile (M) type, and +1 to all attacks of the direct-fire ballistic (DB) type (see pp. 96-97)
Storm	+3 to all attacks of the missile (M) type, and +2 to all attacks of the direct-fire ballistic (DB) type (see pp. 96-97)

Physical Attacks Only	
Attacker	
'Mech Damage	
Shoulder hit	No punching or physical weapon attack with arm; no clubbing attacks; +2 to pushing attack (each)
Upper or lower arm actuator hit (each)	+2 to punching and physical weapon attack with arm; half damage for punching attack with arm; +2 to clubbing attacks
Hand actuator hit	+1 to punching attack with arm; no clubbing attacks; no physical weapon attack with arm
Hip actuator hit	No kicking attacks
Upper or lower leg actuator hit (each)	+2 and half damage to kicking attack with that leg
Foot actuator hit	+1 to kicking attack with that leg
Other Modifiers	
Charging attack	Modify for relative Piloting Skills (see *Comparative Modifier*, p. 34)
Death from above attack	Modify for relative Piloting Skills (see *Comparative Modifier*, p. 34)
Unintentional charge	+3
Weather Conditions	
Moonless Night	+1; Ignore if the target is illuminated

*See *Terrain Modifiers*, p. 26, for exceptions.
† Does not necessarily apply to Four-legged 'Mechs (see *Firing While Prone*, p. 30).

CLUSTER HITS TABLE

Roll (2D6)	Weapon Size																												
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40
2	1	1	1	1	2	2	3	3	3	4	4	4	5	5	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10	12
3	1	1	2	2	2	2	3	3	3	4	4	4	5	5	5	5	6	6	6	7	7	7	8	8	9	9	9	10	10	12
4	1	1	2	2	3	3	4	4	4	5	5	5	6	6	7	7	8	8	9	9	9	10	10	10	11	11	11	12	12	18
5	1	2	2	3	3	4	4	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
6	1	2	2	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
7	1	2	3	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
8	2	2	3	3	4	4	5	5	6	7	8	8	9	9	10	10	11	11	12	13	14	15	16	16	17	17	17	18	18	24
9	2	2	3	4	5	6	6	7	8	9	10	11	11	12	13	14	14	15	16	17	18	19	20	21	21	22	23	23	24	32
10	2	3	3	4	5	6	6	7	8	9	10	11	11	12	13	14	14	15	16	17	18	19	20	21	21	22	23	23	24	32
11	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40
12	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	40

'MECH HIT LOCATION TABLE

Roll (2D6)	Left Side	Biped (Four-legged) Front/Rear	Right Side
2*	Left Torso [critical]	Center Torso [critical]	Right Torso [critical]
3	Left Leg (Left Rear Leg)	Right Arm (Right Front Leg)	Right Leg (Right Rear Leg)
4	Left Arm (Left Front Leg)	Right Arm (Right Front Leg)	Right Arm (Right Front Leg)
5	Left Arm (Left Front Leg)	Right Leg (Right Rear Leg)	Right Arm (Right Front Leg)
6	Left Leg (Left Rear Leg)	Right Torso	Right Leg (Right Rear Leg)
7	Left Torso	Center Torso	Right Torso
8	Center Torso	Left Torso	Center Torso
9	Right Torso	Left Leg (Left Rear Leg)	Left Torso
10	Right Arm (Right Front Leg)	Left Arm (Left Front Leg)	Left Arm (Left Front Leg)
11	Right Leg (Right Rear Leg)	Left Arm (Left Front Leg)	Left Leg (Left Rear 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. 46.

'MECH KICK LOCATION TABLE

D6 Roll Result	Left Side	Biped Front/Rear	Right Side
1–3	Left Leg	Right Leg	Right Leg
4–6	Left Leg	Left Leg	Right Leg

D6 Roll Result	Left Side	Four-legged Front/Rear	Right Side
1-3	Left Front Leg	Right Front Leg/Right Rear Leg	Right Front Leg
4-6	Left Rear Leg	Left Front Leg/Left Rear Leg	Right Rear Leg

'MECH PUNCH LOCATION TABLE

BIPED			
D6 Roll	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

FOUR-LEGGED			
D6 Roll	Left Side	Front/Rear	Right Side
1	Left Torso	Left Front Leg/Left Rear Leg	Right Torso
2	Left Torso	Left Torso	Right Torso
3	Center Torso	Center Torso	Center Torso
4	Left Front Leg	Right Torso	Right Front Leg
5	Left Rear Leg	Right Front Leg/ Right Rear Leg	Right Rear Leg
6	Head	Head	Head

DIFFERENT LEVELS TABLE

Target is:	Allowed Physical Attack
Standing 'Mech 1 level higher	Charge, Punch (Kick Table), Club (Kick Table), Physical Weapon (Kick Table)
Standing 'Mech 1 level lower	Charge, Kick (Punch Table), Club (Punch Table), Physical Weapon (Punch Table)
Prone 'Mech 1 level higher	Punch, Club, Physical Weapon
Prone 'Mech 1 level lower	None

Note: A ´Mech can always make a death from above attack if it has the necessary Jumping MP, provided the target is valid.

PHYSICAL WEAPON ATTACKS TABLE

Weapon Type	To-Hit Modifier	Damage Value**	Hit Location Table	Affected by TSM?
Claws	+1	1 per 7 tons	Punch	Yes
Flail	0	9*	Standard	No
Hatchet	–1	1 per 5 tons	Option††	Yes
Lance	0	1 per 5 tons	Standard	Yes
Mace	+1	1 per 4 tons	Option††	Yes
Retractable Blade	–2*	1 per 10 tons	Option††	Yes
Sword	–2	(1 per 10 tons) +1	Option††	Yes
Talons	0	×1.5	As per attack	With kicks
Vibroblade				
Activated	–2	See p. 109	Option††	No
Deactivated	–2	(1 per 10 tons) +1†	Option††	Yes

*Value not affected by an absent or damaged hand actuator in the arm mounting it.

**Assign all damage as a single damage grouping. "1 per X tons" mean that the weapon does 1 point of damage for every X tons the 'Mech carrying it weighs (round fractional damage up); swords and deactivated vibroblades then add 1 point to this total.

†This cannot be higher than the damage an activated vibroblade of the same type deals.

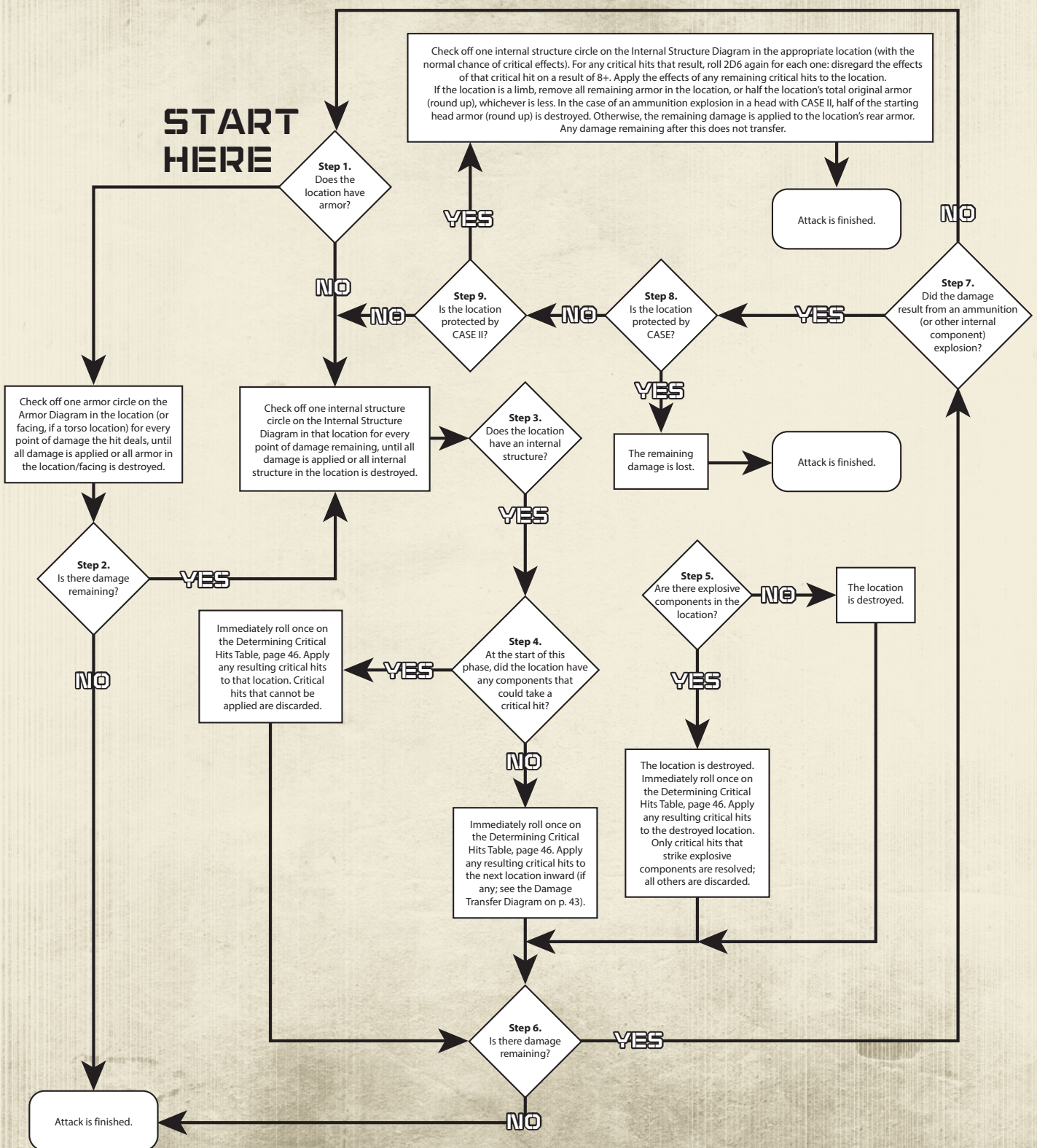
††By default the weapon rolls on the regular Hit Location Table. However, when the player declares the physical weapon attack, they may also declare that it will use the Punch or Kick Hit Location Table instead. If so, apply a +4 Target Number modifier in addition to the weapon's standard modifier (the +4 modifier does not apply when forced to roll on a Punch/Kick Location Table due to attacks from different levels; see p. 34).

PHYSICAL ATTACK MODIFIERS TABLE

Attack Type	Modifier
Charging	+0
Clubbing	–1
Death From Above (DFA)	+0*
Kicking	–2
Punching	+0
Pushing	–1
Physical Weapon	See p. 38

*All the normal attack modifiers apply, including the attacker's jumping movement, but the roll is not modified for terrain.

• DAMAGE RESOLUTION FLOW CHART •



PILOTING SKILL ROLL TABLE

Situation	Modifier
Damage to 'Mech	
'Mech takes 20+ damage points in one phase	+1
'Mech fusion reactor shuts down	+3[1]
Leg/foot actuator destroyed	+1
Hip actuator destroyed	+2
Gyro hit	+3
Gyro destroyed	Automatic fall[2]
Leg destroyed	Automatic fall[3]
Physical Attacks Against 'Mech	
'Mech was kicked	0
'Mech was pushed	0
'Mech was successfully charged/hit by death from above	+2
'Mech's Actions	
Missed kick	0
Made a successful charging attack	+2
Made a successful death from above attack	+4[4]
Entered Depth 1 water hex	–1
Entered Depth 2 water hex	0
Entered Depth 3+ water hex	+1
Attempted to stand	0
Entered sand hex	+1
Entered light jungle hex	+1
Entered heavy jungle hex	+2
Entered rubble hex	0
Running after facing change while on pavement	See *Skidding*, p. 68.
Jumped with damaged gyro or leg/foot/hip actuators	per Preexisting Damage, at right
Jumped with destroyed leg	per Preexisting Damage, at right
Ran with damaged hip or gyro	per Preexisting Damage, at right
Terrain Modifications	
Ice	+3[5]
Mud	+1[5]
Deep Snow	+1[5]
Swamp	+1[5]

[1]Only during the phase that the reactor shuts down. If the MechWarrior must make a Piloting Skill Roll for a 'Mech with a shutdown reactor, the 'Mech automatically falls; in either case, if the 'Mech falls, the warrior automatically takes 1 point of damage (see *Falling Damage to a MechWarrior*, p. 57).

[2]The modifier for a destroyed gyro is +6 when making a Piloting Skill Roll to avoid damaging the MechWarrior during an automatic fall.

[3]The modifier for a destroyed leg is +5 when making a Piloting Skill Roll to avoid damaging the MechWarrior during an automatic fall.

Situation	Modifier
Special Cases	
MechWarrior trying to avoid damage when their 'Mech is falling	+1/every level above 1
Four-legged 'Mech with all legs	–2
Unintentional charge	+3
'Mech mounts AES in its legs	–2
'Mech mounts Hardened Armor	+1
'Mech mounts small or torso-mounted cockpit	+1
Preexisting Damage	
Per leg/foot actuator previously destroyed	+1
Per hip actuator previously destroyed	+2[6]
Gyro previously hit	+3
Leg previously destroyed	+5[7]
Skidding Movement	
Hexes moved in turn	
0–2	–1
3–4	0
5–7	+1
8–10	+2
11–17	+4
18–24	+5
25+	+6
Building Movement[8]	
'Mech entering/leaving light building hex	0
'Mech entering/leaving medium building hex	+1
'Mech entering/leaving heavy building hex	+2
'Mech entering/leaving hardened building hex	+5
Hexes moved in turn	
1–2	0
3–4	+1
5–6	+2
7–9	+3
10–17	+4
18–24	+5
25+	+6

[4]Automatic fall if death from above attack is unsuccessful.

[5]This penalty applies to all PSRs made in this hex (including the PSR made when entering it).

[6]Ignore all modifiers from previous critical hits on that leg.

[7]Do not add modifiers for other damaged actuators in the leg.

[8]To avoid damage only. Does not result in a fall if Piloting Skill Roll fails. See *Buildings*, p. 66. Add an additional +1 modifier if 'Mech is charging or being charged (in addition to the +2 modifier normally required in that situation).

FACING AFTER FALL TABLE

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

BASEMENTS TABLE

Dice Roll	Effect
2	Double basement. The 'Mech falls 2 levels.
3-4	Basement. The 'Mech falls 1 level.
5-8	No basement.
9	Small basement. No effect on 'Mechs.
10-11	Basement. The 'Mech falls 1 level.
12	Double basement. The 'Mech falls 2 levels.

HEAT POINT TABLE

Activity	Heat Points
Walking	+1 per turn
Running	+2 per turn
Jumping	+1 per hex (min. of 3 per turn)
Attempting to stand	+1 per attempt
Weapons fire	Per Weapons Tables, pp. 120-125
Equipment	Per entry in Weapons and Equipment, pp. 120-127
Heat sink	–1 per operational heat sink –2 per operational double heat sink –1 additional per operational single heat sink under water (maximum 6 points) –2 additional per operational double heat sink underwater (maximum 6 points)
First engine hit	+5 per turn
Second engine hit	+10 (total) per turn

SKID MODIFIERS TABLE

Hexes Moved	Piloting Skill Modifier
0-2	–1
3-4	0
5-7	+1
8-10	+2
11-17	+4
18-24	+5
25+	+6

DETERMINING CRITICAL HITS TABLE

Roll	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 attack strikes the torso.

BUILDING MODIFIERS TABLE

Building Type	Original CF	MP Cost Per Hex	Piloting Skill Modifier
Light	1–15	+1	0
Medium	16–40	+2	+1
Heavy	41–90	+3	+2
Hardened	91–150	+4	+5
Cost to Enter Any Hex		*1*	

BUILDING MOVEMENT MODIFIERS TABLE

Hexes Moved In Turn	Piloting Skill Modifier
1–2	0
3–4	+1
5–6	+2
7–9	+3
10–17	+4
18–24	+5
25+	+6

UNDERWATER LOS TABLE

Attacker is:	Target is:		
	Underwater[1]	*Ground*[2]	*'Mech at Depth 1*
Underwater[1]	Yes	No	Yes[4]
Ground[2]	No	Yes	Yes[3]
'Mech at Depth 1	Yes[6]	Yes[5]	Yes[7]

[1]Includes standing 'Mechs at Depth 2+ and prone 'Mechs at Depth 1.
[2]Includes 'Mechs standing at Level 0+.
[3]At +1 for partial cover; use the appropriate column of the 'Mech Hit Location Table, with any leg hits striking the water and inflicting no damage.
[4]At +1 for partial cover; use the appropriate column of the 'Mech Hit Location Table, with any location hit but leg hits striking the water and inflicting no damage.
[5]Can only fire torso, arm or head weapons.
[6]Can only fire leg weapons.
[7]Leg weapons can only hit legs; all other weapons can only hit non-submerged locations (see *Water*, under *Partial Cover Modifier*, p. 26).

TERRAIN FACTOR AND CONVERSION TABLE

Terrain Factor	Former Terrain	New Terrain
Heavy Jungle: 100	Heavy Jungle	Light Jungle
Light Jungle: 60	Light Jungle	Rough
Heavy Woods: 90	Heavy Woods	Light Woods
Light Woods: 50	Light Woods	Rough
Rough: 0	All others	No change

FIRE TABLE

Weapon Type	Target Number
Inferno	Automatic
Plasma Weapon or Flamer	3+
Direct-Fire Energy or Pulse Weapon	7+
Missile or Direct-Fire Ballistic	9+
Environment*	**Modifier**
Woods	+0
Jungle	+1
Building: Light	–2
Building: Medium	–1
Building: Heavy	+0
Building: Hardened	+2
Extreme Temperatures	**

*Environments not listed cannot be set on fire.
**For every 10 degrees above 30 degrees Celsius, apply a –1 modifier. For every 10 degrees below –30 degrees Celsius, apply a +1 modifier.

UNDERWATER RANGE TABLE

Weapon	Short	Medium	Long
Small Laser	1	2	—
Medium Laser	1–2	3–4	5–6
Large Laser	1–3	4–6	7–9
Light PPC*	1–4	5–7	8–10
PPC*	1–4	5–7	8–10
Heavy PPC*	1–4	5–7	8–10
Snub-nose PPC	1–6	7–8	9
ER Micro Laser	1	2	—
ER Small Laser (Clan)	1	2	3–4
ER Small Laser (IS)	1	2	3
ER Medium Laser (Clan)	1–3	4–7	8–10
ER Medium Laser (IS)	1–3	4–5	6–8
ER Large Laser (Clan)	1–5	6–10	11–16
ER Large Laser (IS)	1–3	4–9	10–12
ER PPC (Clan and IS)	1–4	5–10	11–16
Micro Pulse Laser	1	2	—
Small Pulse Laser (Clan)	1	2	3–4
Small Pulse Laser (IS)	1	2	—
Medium Pulse Laser (Clan)	1–3	4–5	6–8
Medium Pulse Laser (IS)	1–2	3	4
Large Pulse Laser (Clan)	1–4	5–10	11–14
Large Pulse Laser (IS)	1–2	3–5	6–7
Small Heavy Laser	1	2	—
Medium Heavy Laser	1–2	3–4	5–6
Large Heavy Laser	1–3	4–6	7–9
Binary Laser (Blazer) Cannon	1–3	4–6	7–9
Chemical Laser, Small	1	2	—
Chemical Laser, Medium	1–2	3–4	5–6
Chemical Laser, Large	1–3	4–6	7–9
ER Pulse Laser, Small	1	2	3–4
ER Pulse Laser, Medium	1–3	4–6	7–9
ER Pulse Laser, Large	1–4	5–10	11-16
Improved Heavy Laser, Small	1	2	—
Improved Heavy Laser, Medium	1–2	3–4	5–6
Improved Heavy Laser, Large	1–3	4–6	7–9
Re-engineered Laser, Small	1	2	—
Re-engineered Laser, Medium	1–2	3–4	5–6
Re-engineered Laser, Large	1–3	4–6	7–9
Variable-Speed Laser, Small	1	2	3
Variable-Speed Laser, Medium	1	2–3	4–6
Variable-Speed Laser, Large	1–2	3–5	6–9
X-Pulse Laser, Small	1	2	3
X-Pulse Laser, Medium	1–2	3–4	5–6
X-Pulse Laser, Large	1–3	4–6	7–9
Laser Anti-Missile System	—	—	—

* Minimum range 3.

BATTLEFIELD SUPPORT TABLE

Support Type	Target Number*	Damage Value Groupings**	Damage Type	Battlefield Support Point (BSP) Cost
Offensive Aerospace Support				
Light Strike	5	2	N/A	2
Light Bombing†	6	3	AE	3
Heavy Strike	6	4	N/A	3
Heavy Bombing†	7	6	AE	4
Strafing	7	3	N/A	5
Defensive Aerospace Support				
Light Air Cover		N/A	N/A	1
Light Strike	3			
Light Bombing	4			
Heavy Strike	9			
Strafing/Heavy Bombing	11			
Heavy Air Cover	5/6	N/A	N/A	2
Light Strike/Bombing	9			
Heavy Strike	5			
Strafing/Heavy Bombing	6			
Artillery Support†				
Thumper	8	3/1††	AE	3
Sniper	8	4/2††	AE	4
Long Tom	8	5/3/1††	AE	6
(Copperhead)	8	‡	N/A	‡
(Illumination/Smoke)	‡	‡	N/A	‡
Minefield Support				
Light Density	9	2	AE	0.5
Medium Density	8	4	AE	2
Heavy Density	7	6	AE	4

*No modifiers are applied to this Target Number, except for Artillery Support (see p. 77).
†Scatters if misses; see page 77.
‡See rules, page 79.
**All Damage Value groupings are five points of damage.
††Affects multiple hexes; see Artillery Support, page 77.

EJECTION MODIFIERS TABLE

Landing Terrain	Modifier
Clear	–2
Water	–1
Deep Snow	–2
Rough	0
Rubble	0
Light Jungle/Woods	+2
Heavy Jungle/Woods	+3
Per Level of Building	+1

Planetary Conditions	Modifier
Heavy Snowfall/Strong Gale/ Torrential Downpour	+2
Storm	+3
Situation	**Modifier**
BattleMech Prone	+5
Pilot Unconscious	+3
Per Point of Head Internal Structure Damage	+1
Automatic Ejection	+1

POSITIVE QUIRK TABLE

Type	Cost	Brief Description
Accurate Weapon	Variable	All Target Numbers for that weapon receive a –1 modifier.
Anti-Aircraft Targeting	Variable	'Mech is more effective against airborne targets.
Barrel Fist	1	Arm with this Quirk does not apply the +1 TN modifier for punching if lacks a hand actuator.
Battle Computer	5	'Mech provides a +2 Initiative bonus.
Battlefists	2	'Mech 'Mech receives –1 TN modifier for punching.
Combat Computer	3	'Mech generates four points of heat less than normal.
Command BattleMech	2	'Mech provides a +1 Initiative bonus.
Compact 'Mech	1	Allows 2 'Mechs with this same Quirk to occupy one transport slot.
Cowl	4	+3 points of head armor except against attacks that originate along the row of hexes directly in front of the cowled 'Mech.
Directional Torso Mount	2 or 3	Weapons in mount may shoot in either the forward torso arc or the rear arc, depending on the mount's current facing. The mount's facing can be changed at the same time torso twists are made.
Distracting	1	+1 Special Source modifier to any Morale Checks when using the Tactical Morale rules (see pp. 211-213, *TO*). If using the Demoralizer SPA (see p. 74, *CO*), +1 modifier to the demoralizer's WIL score.
Easy to Maintain	1	All repair or replacement rolls made for a 'Mech with this quirk receive a –1 Target Number modifier.
Easy to Pilot	2	A MechWarrior with a Piloting Skill higher than 3 will receive a –1 Target Number modifier for Piloting Skill Rolls required as a result of damage or terrain. More skilled MechWarriors receive no benefit.
Extended Torso Twist	3	When torso twisting, the 'Mech can change its facing by one or two hexsides.
Fast Reload	1	Affected weapons can reload in half the normal time.
Fine Manipulators	0	May mount up to one Manipulator (see *TM*, p. 245) in each side torso and/or arm location.
Good Reputation	0	For each level of this quirk a 'Mech has, it costs 10% more C-bills than normal.
Hyper-Extending Actuators	1	Can still flip arms to fire all arm-mounted weapons into its rear arc.
Improved Communications	1	The 'Mech is more resistant to electronic warfare.
Improved Cooling Jacket	1	When fired, this weapon generates 1 point less heat (never less than 1 point).
Improved Life Support	1	Treat the 'Mech's heat level as being 5 points lower when determining MechWarrior damage as a result of heat following a life support critical hit.
Improved Sensors	3	A 'Mech with this quirk is treated as if it has an active probe. If it is equipped with an actual active probe, instead add 2 to that active probe's range.
Improved Targeting, Short	3	All Short ranged attack Target Numbers receive a –1 modifier.
Improved Targeting, Medium	4	All Medium ranged attack Target Numbers receive a –1 modifier.
Improved Targeting, Long	5	All Long ranged attack Target Numbers receive a –1 modifier.
Jettison-Capable Weapon	1	Weapon can be jettisoned in combat and—if recovered—remounted on the same 'Mech with ease.
Modular Weapons	1	Equipment can be replaced in half the normal time.
Multi-Trac	2	Attack any number of targets in its front and arm firing arcs in the same turn without adding the secondary-target modifier. Secondary targets in the rear arc are treated as normal.
Narrow/Low Profile	2	Some attacks deliver only glancing blows to this 'Mech.
Nimble Jumper	3	When jumping, the 'Mech can be harder to hit and has more flexibility when choosing a jump path.
Overhead Arms	2	Can fire its direct-fire weapons over any terrain feature that stands equal in height to the 'Mech itself (such as a hill or building 2 levels high) at an additional +2 TN modifier.
Protected Actuators	1	+1 TN against Leg and Swarm attacks by infantry.
Reinforced Legs	1	'Mech suffers half the normal damage to the legs when performing Death From Above successfully.
Rugged	1 or 2	1 point: Can go for two times as long between maintenance periods; 2 points: Three times as long.
Searchlight	1	'Mech gains a searchlight.
Stable	2	–1 Target Number modifier when forced to make a Piloting Skill Roll as a result of a physical attack.
Stabilized Weapon	Variable	If the 'Mech runs or sprints all Target Numbers for that weapon receive a –1 modifier.
Ubiquitous	1	When attempting to locate replacement parts for this 'Mech, add +2 to the Target Number.
Variable Range Targeting	Variable	All weapon attacks at the designated range receive a –1 Target Number modifier, but all weapon attacks at the other range receive a +1 Target Number modifier (medium range remains unmodified).
Vestigial Hands	0	'Mech with vestigial hands may lift and drop items if a scenario objective requires it.

NEGATIVE QUIRK TABLE

Type	Cost	Brief Description
Ammunition Feed Problem	1	After making attack roll with weapon, roll 2D6. On a 10+, the weapon jams and cannot be fired again in this battle. On a 12, the new round of ammunition will explode in the weapon for normal damage.
Bad Reputation	1	Worth only half the normal resale value. A Clan 'Mech begins the battle with 1 dezgra point.
Cooling System Flaws	3	Whenever the 'Mech executes or receives a physical attack, falls, or is forced to make a PSR because it received 20+ points damage, roll 2D6. On a 10+ the 'Mech will generate 5 points more heat each turn.
Cramped Cockpit	2	'Mech receives a +1 Piloting Skill Roll modifier.
Difficult Ejection	1	If the MechWarrior fails a PSR when ejecting, they suffer an additional point of damage.
Difficult to Maintain	1	All repair or replacement rolls made for this 'Mech receive a +1 Target Number modifier.
EM Interference	1 or 2	The turn after the weapon has been fired, Electronics aboard the 'Mech will not function.
Exposed Actuators	1	'Mech is more susceptible to anti-'Mech infantry attacks
Exposed Weapon Linkage	2	When the weapon's location is hit, roll 2D6: on a 10+, the weapon can't fire for the rest of the game.
Hard to Pilot	2	'Mech receives a +1 Target Number modifier to all Piloting Skill Rolls.
Illegal Design	0	'Mech may spontaneously break down at any point; much harder to repair (see p. 87).
Inaccurate Weapon	Variable	Weapon receives a +1 Target Number modifier.
Low-Mounted Arms	2	LOS from arms are as if they are from/to the 'Mech's legs; arms still rotate with the torso position.
No/Minimal Arms	2	+2 TN when making a PSR to stand up. 'Mech cannot make physical attacks with its arms.
No Cooling Jacket	2	Weapon generates 2 extra points of heat when fired.
No Ejection System	2	'Mech's pilot may not use Ejection rules
No Torso Twist	2	The 'Mech with this quirk cannot torso twist.
Non-Functional Item	5	Item simply does not work and cannot be repaired or replaced.
Non-Standard Parts	1	When attempting to locate replacement parts, add +2 to the Target Number.
Obsolete	4	'Mech suffers penalties to rolls to repair or locate replacement parts.
Oversized	2	
Poor Cooling Jacket	1	Weapon generates 1 extra point of heat when fired.
Poor Life Support	1	Treat the 'Mech's heat level as being 5 points higher when determining MechWarrior damage as a result of heat following a life support critical hit.
Poor Performance	3	'Mech must spend one turn expending MP equal to its Walking speed before it can use MP up to its Running speed the following turn.
Poor Sealing	2	+2 modifier to the roll when making a Hull Breach check. Must also make a Hull Breach check when first entering a hostile environment.
Poor Targeting (Short)	2	All Short ranged attack Target Numbers receive a +1 modifier.
Poor Targeting (Medium)	2	All Medium ranged attack Target Numbers receive a +1 modifier.
Poor Targeting (Long)	2	All Long ranged attack Target Numbers receive a +1 modifier.
Poor Workmanship	1	Rolls for critical hits are modified by +1.
Prototype	2	Rolls for critical hits are modified by +2.
Ramshackle	3	The 'Mech likely receives a random negative quirk at the start of each battle.
Sensor Ghosts	3	All ranged attack Target Numbers receive a +1 modifier.
Slow Traverse	1	Any turret on the 'Mech may only rotate one hexside a turn.
Static Ammo Feed	2	Weapon is incapable of switching between multiple ammunition bins.
Unbalanced	1	'Mech receives a +1 Target Number modifier to PSRs when entering a hex that requires PSRs.
Weak Head Armor	Variable	A number of head armor points missing equal to the value of the Quirk.
Weak Legs	1	When the 'Mech is kicked or executes a Death From Above attack, roll for a possible critical hit on each leg (even if the armor is not breached) and apply the results.

BATTLETECH™

BATTLEFIELD TRACKING (FOR ALL EYES)

TURN NUMBER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

OPTIONAL RULES CHECKLIST

- ❑ Alternate Initiative (p. 10) _____
- ❑ Playing Card Initiative (p. 10)
- ❑ Lance Movement (p. 10)
- ❑ Segmented Fire (p. 11)
- ❑ Movement Dice (p. 13)
  - Walk Color _____
  - Run Color _____
  - Jump Color _____
  - Sprint Color _____
- ❑ Sprinting (p. 15)
- ❑ Backward Level Changes (p. 16)
- ❑ Careful Stand (p. 19)
- ❑ Partially-Occupied Hexes (p. 21)
- ❑ Extended Arm Flipping (p. 25)
- ❑ One-Armed Prone Fire (p. 30)
- ❑ Floating Criticals (p. 45)
- ❑ Engine Explosions (p. 47)
- ❑ Wreckage (p. 49)
- ❑ Expanded Damage Mods. (p. 55)
- ❑ Terrain Modifications (p. 61)
- ❑ Weather Conditions (p. 62)
- ❑ Fire and Smoke (p. 63)
- ❑ Underwater Combat (p. 64)
- ❑ Simplified Buildings (p. 66)
- ❑ Battlefield Support (p. 75)
- ❑ Dropping Mechs (p. 79)
- ❑ Ejection (p. 81)
- ❑ Forced Withdrawal (p. 81)
- ❑ Hidden 'Mechs (p. 82)
- ❑ Hidden 'Mechs (Expanded, p. 108)
- ❑ Design Quirks (p. 82)
- ❑ Enhanced Flamers (p. 99)
- ❑ Rapid-Fire Mode MGs (p. 101)
- ❑ Piercing (Retractable Blade, p. 108)
- ❑ Targeting (Active Probe, p. 108)
- ❑ Enhanced Missile Defense (AMS, p. 116)

G.A.T.O.R.

G **Gunnery Skill Rating** of the attacker (the base Target Number for the attack). Then add:
A **Attacker** movement modifier
T **Target** movement modifier
O **Other** modifiers (potentially a big category, but typically only includes woods, partial cover, and heat)
R **Range** modifiers

FORCED WITHDRAWAL (p. 81)

Any 'Mech that suffers crippling damage must withdraw from the map. Crippling damage is defined as one or more of the following:

- **Four or more points of damage to the MechWarrior**
- **The destruction of all sensor critical slots**
- **One gyro and one engine critical hit**
- **Two engine critical hits**
- **A side torso location is destroyed**
- **Internal structure damage in either three or more limbs or two or more torso locations (torso internal structure damage does not count towards crippling damage if that location still has front armor)**
- **The loss of all weapons. This is triggered if a 'Mech loses all weapons (either through damage or ammunition depletion) with a range greater than five hexes and if it can no longer cause more than 5 points of combined weapons damage. This does not apply if the 'Mech did not start with the ability to do 5 or more damage, or the ability to do damage at a range greater than five hexes; in this case the 'Mech can never trigger this condition.**

A 'Mech making a forced withdrawal must move toward its home map edge. However, a 'Mech need not spend Running MP; it can also move backward if its controller wishes. Also, if equipped with MASC, a supercharger, or some other system that increases speed at the risk of damage, a 'Mech need not engage that system when forced to withdraw.

Withdrawing 'Mechs may still attack an enemy 'Mech that closes within range of a weapon or physical attack.

WEATHER CONDITIONS

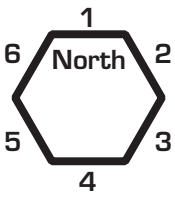
LIGHT (p. 62)
- ❑ Daylight (No additional Rules)
- ❑ Dusk/Dawn
- ❑ Full Moon Night
- ❑ Moonless Night

❑ **EXTREME TEMPERATURE** (p. 62)
C°_____Heat/Turn _____

FOG (p. 62)
❑ Light Fog ❑ Heavy Fog

RAIN (p. 62)
❑ Moderate ❑ Heavy ❑ Torrential

Wind Direction
Indicate which direction is North (1) on map (p. 63)



WIND (p. 63)
❑ Moderate Gale ❑ Strong Gale
❑ Storm

SNOW (p. 63)
❑ Moderate ❑ Heavy

TERRAIN MODIFICATIONS (p. 61)

- ❑ Ice Hexes _____
- ❑ Mud Hexes _____
- ❑ Snow, Deep Hexes _____
- ❑ Swamp Hexes _____

FIRE AND SMOKE (pp. 63-64)

Fire Hexes _____

Smoke Hexes _____

BATTLEFIELD SUPPORT (p. 75)

BATTLEFIELD SUPPORT POINTS*:
- ❑ Extraction Raid Support: 5 BSPs
- ❑ Diversionary Raid Support: 20 BSPs
- ❑ Planetary Assault Support: 35 BSPs
- ❑ Objective Raid Support: 12 BSPs
- ❑ Other _____
  Number of Maps* _____

Support Types:
- ❑ Offensive Aerospace Support
- ❑ Artillery Support
- ❑ Defensive Aerospace Support
- ❑ Minefield Support

*For every two maps beyond the first four, add 50% to the BSPs provided.

NOTES

BATTLETECH™

BATTLEFIELD TRACKING (GM/TEAM EYES ONLY)

OBJECTIVE

_____

_____

BATTLEFIELD SUPPORT (p. 75)

TOTAL BATTLEFIELD SUPPORT POINTS: _____

OFFENSIVE AEROSPACE SUPPORT

Type	TN*	Dmg**	Cost/Each	Uses Remaining
❑ Light Strike	5	2	2	○○○○○○○○○○
❑ Light Bombing†	6	3 (AE)	3	○○○○○○○○○○
❑ Heavy Strike	6	4	3	○○○○○○○○○○
❑ Heavy Bombing†	7	6 (AE)	4	○○○○○○○○○○
❑ Strafing	7	3	5	○○○○○○○○○○

DEFENSIVE AEROSPACE SUPPORT

Type	TN*	Cost/Each	Uses Remaining
❑ Light Air Cover	see below	1	○○○○○○○○○○
Light Strike	3		○○○○○○○○○○
Light Bombing	4		
Heavy Strike	9		
Strafing/Heavy Bombing	11		
❑ Heavy Air Cover	see below	2	○○○○○○○○○○
Light Strike/Bombing	9		○○○○○○○○○○
Heavy Strike	5		
Strafing/Heavy Bombing	6		

ARTILLERY SUPPORT†

Type	TN	Dmg**	Cost/Each	Uses Remaining
❑ Thumper	8	3/1†† (AE)	3	○○○○○○○○○○
Target Hex/Turn:				

Type	TN	Dmg**	Cost/Each	Uses Remaining
❑ Sniper	8	4/2†† (AE)	4	○○○○○○○○○○
Target Hex/Turn:				

Type	TN	Dmg**	Cost/Each	Uses Remaining
❑ Long Tom	8	5/3/1†† (AE)	6	○○○○○○○○○○
Target Hex/Turn:				

Type	TN	Dmg**	Cost/Each	Uses Remaining
❑ (Copperhead)	8	‡	‡	○○○○○○○○○○
Target Hex/Turn:				

Type	TN	Dmg**	Cost/Each	Uses Remaining
❑ (Illumination/Smoke) ‡		‡	‡	○○○○○○○○○○
Target Hex/Turn:				

MINEFIELD SUPPORT

Type	TN*	Dmg**	Cost/Each	Total Minefields
❑ Light Density	9	2 (AE)	0.5	_____
Mined Hexes:				

Type	TN*	Dmg**	Cost/Each	Total Minefields
❑ Medium Density	8	4 (AE)	2	_____
Mined Hexes:				

Type	TN*	Dmg**	Cost/Each	Total Minefields
❑ Heavy Density	7	6 (AE)	4	_____
Mined Hexes:				

*No modifiers are applied to this Target Number. †Scatters if misses; see page 77.
**All Damage represents groupings of five points of damage.
††Affects multiple hexes; see page 77 ‡See rules, page 79.

OBJECTIVES/OTHER LOCATIONS

Objective	Hex	Notes

HIDDEN 'MECHS (P. 82)

'Mech	Hex	Facing	Miscellaneous

NOTES

BETRAYAL OF IDEALS

THE TRUE FATE OF A CLAN...

The Not-Named Clan–the Clan that was erased from history for perpetrating acts of heresy against the way of their peers. But what truly happened to Clan Wolverine?

The year is 2822. Khan Sarah McEvedy, leader of the progressive Clan Wolverine, cannot compromise her beliefs or her honor. She must do everything she can to ensure her Clan survives.

Written by *BattleTech* veteran Blaine Lee Pardoe, *Betrayal of Ideals* tells the complete story of Clan Wolverine's true history.

Topps

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