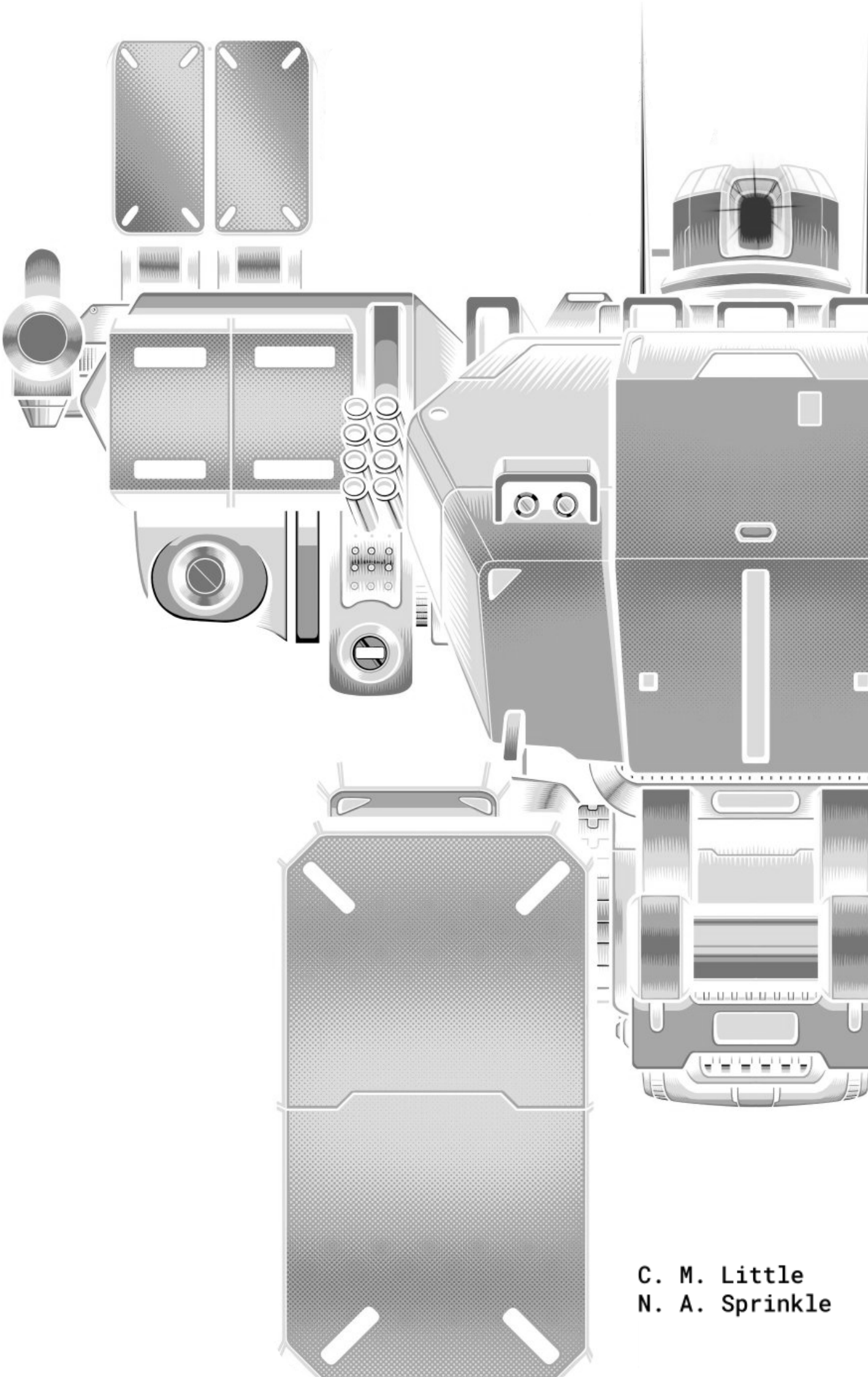
METALLURGENT BETA TEST



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THE SILVER AGE

In the early 1950s, the great hemispheric powers of the United States of America and the Union of Soviet Socialist Republics started a competition. This competition, born out of a thirst for discovery, would come to redefine the concepts of exploration, exploitation, commercialisation, and, eventually, conquest. At every milestone these two great powers flexed their economic muscles, levying their immense industrial might as weapons of the modern age. No longer was war waged with shot and shell, but instead with speech and poise. Through a combination of immense financial effort, reckless feats of engineering, and a universally indefatigable determination to carry out a new vision for all mankind, these powers achieved the impossible.

The following decades called this competition "The Space Race." It would be fondly recalled as a period of great economic stability and perpetual innovation. The vastness of all the treasure on Earth, the great powers declared, was a small pond compared to the innumerable silvery riches of the great black ocean above. Massive alabaster machines, towering over the greatest monuments of Earth, roared skyward upon millions of pounds of rocket fuel. With every launch a new glittering star appeared in the heavens. First a hundred, then a thousand, then before long the great black ocean shone brightly with stars young and old. A few of these new stars shone their light upon Earth's sisters, and the great powers continued their competition in earnest, racing to claim victory anywhere they could find it.

First, there was Luna. The great powers endeavoured to transform Earth's humble friend into a gleaming symbol of humanity's combined resolve. Spacewalks became temporary stays, and temporary stays became permanent. From Tranquility grew the nascent Lunar community; scientists and engineers at first, then farmers, teachers, businessmen, and philosophers joined the exploding Lunar society. These first pioneers shirked their nationalistic fervour in favour of a new label for a new society: Selenite. With the creation of this new nation, the Lunar economy blossomed, and before long a new financial standard threatened to overtake currencies bound by gravity. The Mona was welcomed, and the great powers publicly applauded this new evolution.

Colonies sprouted on Venus, the world hidden in clouds. Through the Long Rains the early Venusians clawed out a wet, stubborn existence. Terraforming began on Mars, the world made from dust. Mankind would not stand a planet hostile to their presence. These processes streamed through Luna and the Selenite nation grew rapidly. The great powers understood that this competition had a new player. Legislation with universal accord passed. Space would be neutral. Luna would have no weapons. And all the while, the hundred-metre-tall obelisks of light continued to ferry stars heavenward.

For a time, it was perfect. But in dark bureaucratic corners blacker than any empty space, sinister gears began to turn.

TARNISHING

As the Selenites celebrated their liberty, the great powers tended to their worldly concerns. Peaceful were the great powers. This they maintained, even as their tendrils snaked around the throats of lesser powers. All of humanity stared skyward at the booster flares of thousands of rockets. Some, however, felt little joy. This new Earth had been shaped without them. Resentment nestled in the hearts of those left behind, tolerable at first, excruciating at last. Something had to give, yet nothing did.

The United States of America and the Union of Socialist Soviet Republics had become quite good at their cordial competition. Technologies, developed seemingly as novelties, formed entire backbones of extraterrestrial travel. Mighty engines, both fiscal and physical, propelled American influence across the globe and far into space. Beam-riding lightships, designed to sail along ruby-red highways of laser light, took Cosmonauts to Venus and back. Disadvantages became advantages. The great powers continued their game, daring one another to do better. Nationalistic optimism blossomed in the fertile minds of the great powers' peoples, reaching a fever pitch as mankind was catapulted to greater and greater heights. Surely, some thought, something had to give. And yet, nothing did.

While all of Earth looked to the heavens, a torpid, almost negligible rot began to creep into the taut political musculature of the great powers. Conflicts conflagrated the world over- never once interrupting the peace of the great powers. Here and there a country suffered invasion. Here and there a nation crumbled to dust. Here and there people fled their home, unwelcome on Earth, and unknown to space. Still the great powers worked to stymie disaster. Relief efforts abounded. Sanctions relaxed. Defensive treaties thawed. All of Earth heaved a collective sigh. Things weren't as bad as they seemed.

In the 1970s the United States of America signed the Pan-American Alliance into law. Brazil, Mexico, Panama, and Canada became closer bedfellows than any nation in NATO could hope to be. Concern rippled throughout the world, but still the rockets flew. In the 1980s the Union of Soviet Socialist Republics loosened its grip on its member states. New alliances and old hatreds alike came to light. Worry stirred the serenity of the world, but still the rockets flew. In the 1990s European and Asian countries looked to reaffirm old friendships and begin new ones, and the surface of the Earth was scored with yet more lines in the sand. Allegiances became hazy. Legal language became opaque. In this new world, it seemed that only one nation had a clear vision and the power to realise it. Luna.

Mona, the Lunar currency, had grown to supplant terrestrial financial power. The Selenites, with their easily-accessible titanium farms and gas harvesting, shaped a gleaming silver ring around Earth. Dissent from the great powers and their allies held little sway. The Mona became the Silver Standard. And in the middle of it all, an American operation in Panama named Just Cause proved the power and efficiency of a new breed of combat unit called the Anvil.

For a time, it was peaceful. But the great powers had begun to tire of their competition.

Y2K

Outside a small research plant in New Mexico, in the United States of America, a pair of remotely operated four-metre-tall legs made from Lunar titanium scaled a 14% grade made of asphalt. This moment occasionally appears as a footnote in scientific history books, yet signifies a point of no return for all of humanity. It was on this June day, in 1978, in record-breaking heat, that the Anvil took its first true steps.

The brainchild of those working for the nascent Future Armor Research Command, the Anvil would become a symbol of military might in just a few short decades. As the great powers reached into space and grasped Luna in their hands, engineering vehicles were designed to fill needs on the Lunar surface. One such vehicle, the Lunar Engineering Vehicle (Improved), or LEVI for short, became a staple for offworld construction and engineering. A major advantage held by the LEVI was its Articulated Networked Vehicle Linkage system. ANVL. This system, pounded into submission to function with terrestrial vehicles, gave birth to the Anvil.

Almost before the Anvil could fully walk, it ran. Combat trials piqued the interest of politicians and officers alike. This will revolutionise the battlefield, they proclaimed. It would not be long before a combination of convergent evolution and industrial espionage saw other powers develop their own Anvils, and so a new, secret competition began.

As titanium rained down from space like manna from heaven, the great powers sought to place their faith in the engineers and technicians in charge of their Anvil programmes. Such speed, agility, and versatility had never been seen before. Surely this machine would change the world. Ours must be the greatest, the great powers said to themselves in private, lest we begin to lose our grip. If space now belonged to the Selenites, Earth could at least still belong to us, the great powers reasoned.

It would not be until the 1990s when Anvils proliferated to the point of near-mundanity. Corporate giants wheeled around the Anvil like a carousel, each striving to corner the market. Technologies which originally carried mankind into space now propelled these hulking war machines into battle, where their strength could only be matched by another Anvil. The decade rolled on, and manufacturers solely specialising in Anvil technologies sprouted by the dozen. The great powers thought little of them, and still the rockets flew.

On New Year's Eve, 1999, a small group of Anvils infiltrated a heavily-guarded island in the Pacific Ocean. Within the island's long-dead volcano slumbered cataclysmic power made not by nature, but by man. As the world looked to space, eager to celebrate the turn of the millennium, a nuclear missile launched from that island. It flew like a rocket, an alabaster obelisk, ready to add one last star into the glittering lattice which surrounded Earth. One satellite collided with another, then another, until a great rolling avalanche of debris cascaded from sunrise to sunset. So ended the Silver Age.

For a time, it was tough. But the brilliance of the human spirit is not so easily darkened.

Welcome to the METALLURGENT Beta Ruleset and Playtest!

We are very happy to have you here and we hope you'll find METALLURGENT as exciting as we do. Before we get into the nuts and bolts, let's make sure you have everything you'll need for a solid round of playtesting.

You'll need the following:

- One player to run the game as the Coordinator (or Game Master)
- Two to four players to play the game as Pilots (or Player Characters)
- About six hours of time
- As many six-sided dice as you can find or a dice rolling application
- At least one hex-based Battlemap 33 hexes wide and 30 hexes tall
- And, crucially, yourself (we wouldn't be here without you)

METALLURGENT is designed with extreme flexibility in mind so that all players can customise their combat experience however they'd like. This core tenet is present at all stages of play, from the setup phase of an encounter to the climax of a hectic battle.

Because of this, some sessions may run longer than expected, especially for new players who are still familiarising themselves with the system. Plan accordingly so that you may enjoy your playtime to the fullest!

If you are the Coordinator, you will need to visit the **Game Assembly** chapter to learn how conventional units work and how to put together encounters.

With all of these components assembled, you are ready to get started!

If playing via Roll20, we intend to get some macros and guides made up soon to help facilitate your games, so stay tuned!

Feedback, questions, and bug reports can be posted on our Discord.

To stay updated on METALLURGENT news, art releases, and other future endeavours, follow us on Twitter.

If you wish to support us directly, you may do so by visiting our Patreon.

You can also check out our website, where we have easily accessed art and merch.

Remember to make your own copy of the Assembly Sheet and the NPC Tracker, and check out the Pilot Specialisation Sheet.

Remember, METALLURGENT is a brand new game built from scratch. Playtesters like you will help shape its future as it develops past its many growing pains.

It is our hope that you will be here, with us, to watch it evolve, and, for every step of the way, you will be proud of what we have accomplished together.

From all hands at Proving Grounds Publishing, thank you.

Proving Grounds Publishing

THE GOLDEN RULES

METALLURGENT is a unique system constructed out of familiar pieces from other media. To some of you, the influences may be plainly evident.

In order to quickly eliminate some points of confusion, here are a few Golden Rules to keep in mind:

RULE 1: Always Round Up

When dealing with instances of half-numbers or fractions, always round the result up to the nearest whole number after totalling all numbers. For instance, 5 divided by 2 is always 3 (2.5 is rounded up). In cases where 1 is divided by 2, the result is always 1 (0.5 is rounded up).

RULE 2: Meet or Beat

When performing any action which requires dice to be rolled against a Target Number or when performing a contested roll, success is achieved if the roll is equal to or greater than the Target Number or offensive roll's number of successes.

For instance, an Anvil attacking a unit with a Target Number of 4 must show 4 or more successes in their dice pool to Hit.

RULE 3: Information is Ammunition

The Target Number, or number of successes required to Hit a target, is always known and can never be hidden.

RULE 4: Capitals are Crucial

Many words in METALLURGENT are capitalised to denote their relevance as unique game terms with mechanical implications. For instance, the term "Gear" relates to the weapons and equipment an Anvil can carry. In contrast, the term "gear" merely takes on its conventional dictionary definition.

RULE 5: Specific Trumps General

General rules broadly apply to all units to which they are relevant, while specific rules apply only to a certain unit or instance in combat. In these situations, the specific rules overrule the general rules. Pilot Specialties, some Gear options, and scenario-specific cases are examples of specific rules.

RULE 6: Allies aren't You

Certain rules will mention "allies" as targets for effects. Your pilot and your Anvil are not eligible targets for these effects. Rules which simply mention "a unit," however, or which use similar language, have no such restrictions.

RULE 7: Defender Chooses

Whenever an attack or effect would be drawn between two hexes along their shared side, the target (defender) chooses which side the attack or effect falls on.

Additional Golden Rules may be included as METALLURGENT undergoes its early playtesting. If you identify a recurring point of confusion in the mechanics, let us know!

UNITS and OBJECTS

In METALLURGENT, all entities placed on the field fall into one of three categories: units, which are controllable entities with actions, like Anvils and helicopters; objects, which are static or insensitive entities, like buildings and mines; and terrain, which are tiles that make up the Battlemap, like pavement and woods. This section covers the first two, while **The Battlefield: Terrain** covers terrain.

A unit, simply put, is declared as a unit. Units are typically controlled by players or Coordinators and the actions they take are deliberate. Units are usually able to move and spend energy to perform their duties on the field, and units always occupy their hex. Two units may not occupy the same hex unless otherwise stated. Anvils, tanks, infantry platoons, individual soldiers, and spacecraft are all examples of units.

An object is similarly declared as an object. Like units, objects may be controlled by players or Coordinators, but their actions are automatic or strictly passive in nature. Objects typically do not move and have no energy to spend on actions, and objects may inhabit the same hex as units or other objects, unless otherwise stated. Mines, ballistic missiles, houses, and jettisoned equipment are all examples of objects.

The tanks and Anvils below are units, the buildings are objects, and the trees and landscape are terrain.

COMBAT TIME

Combat in METALLURGENT is measured in two different ways: the immediate blow-by-blow exchange between opposing forces, divided into Turns and Rounds, and the larger-scale strategic organisation of these exchanges, divided into Sorties and Operations.

An Operation represents a string of separate combat encounters brought together by thematic similarities or a cohesive narrative, and which often require strategic planning from participants prior to deployment on the field. One such combat encounter is called a Sortie, and will typically represent a standard play session.

A Sortie is composed of successive Rounds which are, in turn, composed of successive Turns. Each unit participating in a Sortie is given one Turn per Round.

A Turn ends when the active player declares it to be over. A Round ends when all participating units have ended their Turn, at which point a new Round begins. This loop is repeated as many times as necessary until one team achieves its victory conditions, signalling the end of the Sortie. Once all Sorties are concluded, the Operation ends as well.

Within a Round, all units take their Turn in order of their Initiative. Initiative is largely based on how heavy a unit is and what type of Mobility Base it uses. Generally speaking, heavy units act later in the Round and lighter units act earlier. See **The Mobility Base: Initiative** for more details on Initiative.

Due to METALLURGENT's unique economy of action, a unit may perform multiple actions (such as defending against incoming attacks) outside of its active Turn. Turns therefore are primarily important for units to replenish resources, gain access to movement actions, and reassess the situation as it unfolds on the battlefield. Unless specified, all actions can be taken any number of times in a Turn. Because of this, and in order to prevent potentially game-breaking scenarios, almost every action in METALLURGENT has a cost associated with it.

For the purposes of playtesting, a list of example Sorties is provided in Chapter [FIX], which the game Coordinator can rely on to create basic encounters for players. Conventional units, like tanks and helicopters, are also provided. Note that all units on all sides obey the same rules for taking Turns and playing out the Sortie.

CASTING DICE

METALLURGENT makes use of a dice pool system consisting of multiple six-sided dice. Each die (or d6) in a pool presents a **failure** on results of **1**, **2**, and **3**, and a **success** on results of **4**, **5**, and **6**. Results of **6** are treated as **two successes**.

Additional dice are added to dice pools through various methods — the primary source is a character's **Mettle**. Mettle is a measure not only of skills at arms but also confidence and willpower. See Chapter [FIX] for more information on what Mettle is and how it is gained.

Other sources of dice include accuracy intrinsic to the weapon or equipment being used and environmental factors. Some factors will decrease dice pools (such as firing ballistic weapons in a windstorm) or change success criteria (such as firing a guided missile at a marked target).

Many actions require the rolling of a dice pool to determine if the action succeeds or not. The results of this roll are then compared to a Target Number

TARGET NUMBERS

Target Numbers (TN) are derived from the difficulty of performing some sort of action, such as striking a target. For an action to succeed, the number of successes in the dice pool must meet or beat the Target Number associated with that action. Failure to meet the Target Number means the intended result is different.

For instance, a T-72 tank attacks a simple brick wall with its main cannon. The attacker's dice pool for this action is 6d6. The structure's Target Number is 2. Therefore, the attacker needs 2 successes or more to successfully strike the target. The dice are cast and show results of 1, 2, 3, 3, 3, and 6. Five dice show failures but the last die shows a 6, which is two successes, and the T-72 scores a hit on the brick wall.

SUCCESS CRITERIA

Normally, the success criterion for a single cast die is **4+** (a **success** on results of **4**, **5**, and **6**). This **4+** value can change, however, as a result of using special weapons and munitions, special Skills, or by conducting attacks in adverse conditions. Whenever this is the case, the success criteria are modified. If the success criteria are increased, then a cast die succeeds on **5+** (a **success** on results of **5** and **6**). If the success criteria are decreased, then a cast die succeeds on **3+** (a **success** on results of **3, 4**, **5**, and **6**). Success criteria may not be modified to go higher than **6+** or lower than **2+**. Even if your success criteria have been increased to **6+**, those results of 6 will still be duplicated, so try to attack anyway. You might get lucky!

For the purposes of playtesting, all Pilots controlled by the players are assumed to have a Mettle of **6**. This grants them a basic 6d6 dice pool when conducting any action that requires cast dice. Pilots and units controlled by the Coordinator also have a Mettle of **6** unless otherwise stated. All success criteria start at **4+**.

ENERGY

All units in METALLURGENT use Energy (EN) to act. Firing weapons, dodging attacks, and purging Errors (see **Conditions and Errors: Errors**) are just a handful of examples of actions that require EN expenditure.

All units possess two important EN stats: **EN Output** and **EN Capacity**. These stats are different from unit to unit; some units have high EN Output but poor maximum reserves while others have enormous EN Capacity but poor regeneration.

At the start of a unit's Turn, that unit regenerates EN equal to its EN Output value. Units may not hold more EN than their EN Capacity at a given time, and any extra EN generated beyond this value vanishes. While there is no penalty for running low on EN (or even being at 0), your ability to deal with incoming threats will be inhibited.

EN is allocated in one of three ways: Cost, Drain, and Offset.

- Actions with an EN Cost deplete the unit's current EN by the Cost's value.
- Sources of EN Drain reduce the unit's EN Output by the Drain's value until that source is deactivated.
- Sources of EN Offset reduce the unit's EN Capacity by the Offset's value until that source is deactivated.

In all cases, you may not spend more EN than you currently have, or reduce your EN Output or EN Capacity to a value below 0. Units always begin a Sortie with a full EN Capacity.

UPKEEP

The start of a unit's Turn is very important, as a number of resources return to it. Energy is arguably the most critical of these resources, but Move Speed and Heat are also handled at the start of the Turn. This instance is known as **Upkeep**.

When a unit's controller declares that unit is taking its Turn, it automatically enters Upkeep. The following things happen during Upkeep, in order from top to bottom:

- The unit may Power Down or Power Up.
- The unit regains EN equal to its EN Output.
- The unit reduces its Heat based on its Cooling (Gas, Liquid, or Plasma).
- The unit gains Heat from external sources or active Gear.
- The unit resolves any effects which specify "the start of your Turn." Effects are resolved in an order of the active player's choosing.
- The unit regains Move Speed equal to its Cruising Speed (but not Flanking Speed).
- The unit may activate or deactivate any Gear with EN Drain or EN Offset.
- The unit may activate or deactivate any Sustained Skills.

EMERGENCY UPKEEP

While units may only receive the benefits of Upkeep at the start of their Turn, an **Emergency Upkeep** phase exists at the absolute end of a Turn.

When a unit's controller declares that unit has ended its Turn, it automatically enters Emergency Upkeep, and the following actions take place in order from top to bottom:

- If the unit did not spend any EN during its Turn (after Upkeep), it gains EN equal to its EN Output.
- If the unit did not generate any Heat during its Turn (after Upkeep), it reduces its Heat by its total Cooling (the base Cooling from the Generator plus any other sources).
- The unit may spend its Refresh Cost to remove a single Error currently affecting it. It may do this any number of times.
- The unit resolves any effects which specify "the end of your Turn." Effects are resolved in an order of the active player's choosing.
- The unit may activate or deactivate any Sustained Skills which specify Emergency Upkeep.

Upkeep and Emergency Upkeep only happen once per Round for each unit, but certain effects or special Skills may allow units to receive the benefits multiple times.

Some terms above may be unfamiliar. See **The Battlefield: Movement** for details on Move Speed and **The Generator: Cooling** for details on Heat.

THE BATTLEFIELD

METALLURGENT is played on a Battlemap — a grid of tessellated hexes arrayed with straight columns and crooked rows. Each hex is roughly 30 metres from side to side, or close to 100 feet. Combat units of sufficient size, such as Anvils, tanks, helicopters, and other armoured vehicles occupy a hex while they remain within it.

Units may not cross through a hex if a hostile unit is present in said hex, even if that hostile unit is realistically smaller than the unit attempting to cross. Some units, such as personnel and civilian vehicles, do not impose any kind of movement restrictions versus combat vehicles. Such units have this special quality declared.

Battlemaps are generally 30 hexes tall and 33 hexes wide, to form a play area of roughly 1 square kilometre. Battlemaps may be customised as the Coordinator sees fit.

All Player Character units begin combat in the same Deployment Zone on the Battlemap, unless otherwise stated. Players may arrange themselves within the Deployment Zone as-outlined by the Sortie.

Oppositional units also begin combat on the same Battlemap. They may arrange themselves per a stated Scenario or in different configurations depending on the desires of the Coordinator.

Generally-speaking, hostile NPC units should not deploy within the players' Deployment Zone. Friendly NPC units may deploy in the Player Character Deployment Zone depending on the scenario.

For the purposes of playtesting, a number of Battlemaps have been provided, showcasing the varied terrain and environmental conditions with which Anvil Pilots must contend. A Strategic Layer is in the works to allow you to coordinate massed forces across entire Areas of Operation, so stay tuned!

MOVEMENT

Many units in METALLURGENT have the ability to move across the ground, through the air, or over the surface of water. Entering a hex comes at the cost of **Move Speed** (MS). Each hex entered requires the expenditure of 1 point of Move Speed, though some hexes may require an additional cost to be spent.

CRUISING SPEED and FLANKING SPEED

There are two types of Move Speed a unit can utilise for movement: **Cruising Speed** and **Flanking Speed**.

Cruising Speed (also Cruise, Cruising) is generated automatically during an active unit's Upkeep, and may be used only during that unit's Turn. A unit may move up to a number of hexes equal to its Cruising Speed.

Cruising units do not impose any extra difficulty to units targeting them and do not suffer penalties for moving at this rate. Units which are stationary are considered to be Cruising.

Flanking Speed (also Flank, Flanking), on the other hand, does not automatically generate at the start of a unit's Turn. Units may gain additional Move Speed equal to their Flanking Speed by spending Charge. Units must spend all of their Cruising Speed before spending Flanking Speed, and cannot gain Flanking Move Speed until their Cruising speed has been depleted to 0.

Flanking units lose 1 die in all ranged attack pools they cast and generate 1 additional point of DV. Like Cruising, it may be used only during the active unit's Turn.

Cruising and Flanking Speeds are heavily dependent on the Mobility Base a unit uses and its total Load — the lighter the unit, the higher the Speeds.

Many weapons and equipment can be activated on the move. At any point during a unit's movement, it may choose to activate a piece of Gear, and preserve its remaining Move Speed until after its action has resolved. In such cases, movement is not considered to be terminated, as the unit may continue to move freely afterwards.

Some weapons, equipment, and special abilities exhaust remaining Move Speed once fired or activated. In such cases, any remaining Move Speed as part of that Cruising or Flanking movement is considered spent for the Round. Once a unit has spent all of its Move Speed (both Cruising and Flanking) it cannot move additional hexes.

For instance, a Bipedal Anvil has 6 Cruising Speed and can generate an additional 3 Flanking Speed. The Pilot Cruises 3 hexes to get a good shot on an enemy tank posted on a hill. This consumes 3 out of 6 Cruising Speed. At this point the Pilot decides to use the Anvil's 105mm Cannon, a powerful weapon with considerable kickback. The Pilot attacks, and due to this weapon's properties, the remaining Cruising Speed the Anvil had is lost. To get into a better position before a counterattack can be launched, the Pilot decides to use the Anvil's Flanking Speed, spending the necessary Charge. In total, the Anvil moves 6 hexes.

While Cruising and Flanking both generate Move Speed to spend on movement, they are still considered separate instances of movement for the purposes of determining Facing and other movement-related rules.

Allied units may move through each others' hexes but may not occupy the same hex, and units may not move through hexes occupied by units with hostile, neutral, or unknown allegiance. Units which are separated vertically, such as by jumping or flying, may move through such hexes, provided they do not collide with the unit they are attempting to avoid. See **The Battlefield: Elevation and Line of Sight** for more details on Elevation and unit heights.

TURNING WHILE MOVING

Units which spend at least 1 point of Move Speed and move at least 1 hex may change their Facing by 1 hex side after entering their new hex. This Facing change costs no resources. Units may also opt to spend an additional point of Move Speed or their Manoeuvre Cost to change their Facing to any hex side. See **Movement: Facing** below for more details.

MINIMUM MOVEMENT

In some cases, a unit may run out of Cruising Speed before it is able to enter a hex, in which case it may desire to generate and spend Flanking Speed before its Cruise has come to a complete end. In these cases, it is acceptable to generate and spend Flanking Speed to supplement the Cruising Speed to enter the desired hex. For instance, if an Anvil had just 1 Cruising Speed left but wanted to enter a Heavy Woods hex, it could generate its Flanking Speed to cover the cost of entering that hex (which is 2 Move Speed). This helps eliminate situations where units are denied movement due to technicalities.

SIDESLIP

Some units aren't able to come to an immediate halt when they want to. Even the lightest combat vehicle has a lot of inertia. This incidental movement is called a Sideslip. Sideslips occur whenever a hovering or flying unit terminates movement, or when certain units lose traction on slick surfaces, such as Ice.

Sideslips propel a unit in the direction last travelled and only occur if the end hex is valid. Invalid hexes are hexes which require Charge to enter, or hexes which are occupied by another unit. When a unit Sideslips due to Terrain, the remainder of its Move Speed is reduced to 0, and it gains a new Facing determined randomly.

FACING

The capabilities of a particular combat unit are almost always dependent on its Facing. Units which occupy a hex on the Battlemap must face one of the hex's six sides; units may not face one of the vertices. Facing determines how a unit draws its offensive and defensive Arcs, which is important for such cases as keeping a target locked, pointing defensive equipment towards incoming fire, or spotting camouflaged movement.

All units, from pedestrian scooters to supersonic jets, possess six Arcs:

- Nose
- Forward Left
- Forward Right
- Rear Left
- Rear Right
- Aft

While moving, a unit's Facing is always considered to be aligned with the direction of travel — that is to say, a unit moves with its Nose Arc in front. Units which desire to change their Facing may do so while moving (and may change their Facing 1 hex side upon entering a new hex), or they may spend 1 point of Move Speed or their Manoeuvre Cost to change their Facing to any hex side.

Units may Reverse when they move, and their Facing remains opposite the direction of travel — that is to say, the unit moves with the Aft Arc in front. Units may mix any amount of normal and Reverse movement during a turn.

When a unit terminates movement or expends all of its Move Speed, its Facing remains fixed until it spends its Manoeuvre Cost to move again or to specifically change Facing.

During other units' Turns, a unit is permitted to change its Facing only by spending its Manoeuvre Cost, unless it has some kind of Skill or special trait. Units may change their Facing in this manner at any time during the Round, outside of their own Turn, but may not do so during an activation (such as during a weapon attack). Units *may* however change their Facing once the attack has been declared (see **Attack and Defence**).

One of the most important aspects of Facing is its relationship with an Anvil's weapons and equipment, and the various locations these can be mounted to. Core-mounted weapons may only fire in the Nose Arc. Weapons mounted on the Right Arm may fire in the Nose, Forward Right, and Rear Right Arcs; weapons mounted on the Left Arm may fire in the Nose, Forward Left, and Rear Left Arcs.

Generally, the bulk of a unit's firepower and defences will be concentrated in the Nose and Forward Arcs. By contrast, the Aft and Rear Arcs tend to be less defensible, and the efficacy of BID Actions (see **Attack and Defence: Block, Intercept, and Dodge**) suffers as a result. Whenever an attack falls on a line between two hexes, the defender chooses which side of that line the attack uses.

As the lines for an Arc are drawn out from a unit, they will inevitably split some hexes in half. These split hexes seem to exist between two Arcs and are inclusive of both Arcs. For instance, if a unit on a split hex is between the Nose and Forward Right Arcs, it counts as being within both.

ELEVATION and LINE of SIGHT

METALLURGENT is a largely tactical game. Ranges are relatively short compared to the eye-watering distances at which real-life people can conduct real-life war. Even so, Line of Sight (LoS) is important for everything from the simple act of identifying your target and taking a clean shot to more complex actions such as assessing the target's damage, offensive and defensive capabilities, or vector of movement.

Line of Sight is predominantly dependent on Elevation. Elevation is measured in Levels and represents changes in the terrain on the Battlemap. Elevation extends from Level -10 to Level 10, where most hexes are considered to be at Level 0. Large, sudden changes in Elevation may create untraversable terrain, such as a sheer cliff or steep drop off. Each Level is roughly 3 metres tall, or about 10 feet.

Most units are between 1 and 3 Levels tall. Anvils are always 3 Levels tall. Other units, such as tanks, helicopters, and other combat units will have their height, in Levels, listed with the rest of their stats.

When determining Line of Sight between two units, their height in Levels is added to the Elevation of the hex they occupy. Line of Sight is drawn from the "top" of the unit, or the highest Level the unit occupies. For instance, a height 3 Anvil occupying a Level 4 hex has a combined height of 7 Levels.

Line of Sight is always measured in a straight line between the centre of the hexes of the involved units. This line is affected by the Elevation of all hexes it passes through.

Elevated Terrain, Structures, and other obstacles (such as Heavy Woods) will block Line of Sight between two units if:

- The height of the obstacle is greater than the height of the defender and attacker
- The height of the obstacle is greater than the height of the defender and not adjacent to the attacker, unless the attacker's height is greater than the obstacle's
- The height of the obstacle is greater than the height of the defender and the defender is adjacent to that obstacle

For instance, a Challenger 1A5 tank is attempting to hide behind a shallow Level 1 berm. The tank is height 1, which is equal to the Level 1 berm, and so the Anvil hunting it can clearly see it, provided they're on level ground.

As another example, a M163 VADS air defence vehicle (height 1) scoots around a corner and takes up a position behind a row of Level 3 hexes. An Anvil hunting it is height 3, and so cannot see the VADS. The Anvil could get adjacent to the Level 3 hexes, but the height of the obstacle is greater than the VADS'. If the Anvil finds a Level 1 hex to stand on, it could spot the VADS and open fire. Alternatively, if the VADS gets adjacent to the Level 3 hexes, it cannot be attacked by the Anvil no matter how high it goes, and the Anvil will have to find a different avenue to approach.

In circumstances when Line of Sight is drawn along the line which divides two hexes, the assumption is whichever is more favourable to securing Line of Sight.

Units do not spend any additional Move Speed to cross Elevation changes shorter than half of their height in Levels. Units must spend 1 additional point of Move Speed to cross Elevation changes equal to half of their height in Levels. Units must climb to cross Elevation changes greater than half of their height in Levels.

For instance, an Anvil may move from Level 0 to Level 1 without a Speed penalty, but moving from Level 0 to Level 2 would require 1 additional point of Speed. An Anvil moving from Level 0 to Level 3 must climb, which it can only do if it's a Biped.

Certain units have special capabilities (usually derived from their Mobility Base) which let them navigate terrain easier. Anvil Mobility Bases always work the same as other Mobility Bases of the same type (Quadrupeds always behave like Quadrupeds, for example), but Conventional Vehicles may have special equipment or designs which grant them special movement capabilities independent of their Mobility Base (such as the Belladonna, a Biped which can jump like a Reverse-Joint).

LINE of FIRE

Ranged attacks made by units in METALLURGENT come in two different flavours: direct and indirect. When measuring the Line of Sight for a direct attack, the Line of Fire assumes the same geometry as the Line of Sight. That is to say, a direct attack will be blocked by Terrain, Structures, or other obstacles if its Line of Sight is also blocked.

Indirect attacks, on the other hand, do not match their Line of Fire to their Line of Sight. An indirect attack may not be blocked by Terrain, Structures, or other obstacles even if the Line of Sight to the target is, unless the Line of Sight is blocked by an adjacent obstacle. For instance, if an Anvil is behind a building with a height of 4, and its target is out in the open, that Anvil cannot make an indirect attack against that target if the Line of Fire crosses through that building's hex. The Anvil would need to back up at least 1 hex, or use a weapon with a special ability to overcome the obstacle. See **Attack and Defence: Indirect Attacks** for more information on indirect attacks.

DEPTH

Hexes with Water terrain have a Depth value, which is tracked independent of Elevation. Units which enter a Water hex walk or drive along the bottom unless they hover or have a special chassis which allows them to move across the surface.

Units may enter Water hexes of any Depth, but can cease to function properly (or at all) if they end up too deep. Units which occupy Water hexes with a Depth greater than half their height in Levels Power Down immediately, and may not Power Up until removed from the too-deep Water. Units which hover or otherwise move across the surface of Water hexes (or under the surface, such as for submersibles) ignore this stipulation.

Remember to always round up when dealing with decimals and fractions. Anvils are 3 Levels tall, and so can safely enter Depth 2 Water without issue.

Units which are fully submerged reduce all damage from sources originating from above the Water's surface by half before calculating damage.

ALTITUDE

While ground combat is usually fought in two dimensions, some units operate in three dimensions. Each layer of battlefield altitude is separated into Zones.

Units inside of a Zone occupy their hex as if they were on the ground. Flying units within the Ground Zone occupy the hex at their immediate Level, measuring their height as normal. Flying units within all other Zones do not track Elevation, only their Zone, and may pass through hexes occupied by hostile units. Flying units occupying any Zone above NOE ignore all terrain and Elevation while moving.

Units in Zones above Ground still check Line of Sight and Line of Fire when attacking units in the Ground Zone and are treated as being above all obstacles. However, this means that units in the Ground Zone can break Line of Sight to units in higher Zones by finding an obstruction that is their height or taller and moving adjacent to it. Keep this in mind if hostile helicopters and jets are giving you trouble.

There are five distinct Zones: Ground, Nap of the Earth (NOE), Low Altitude, Medium Altitude, and High Altitude. Many Anvil-mounted weapons can reach into the NOE and Low Altitude Zones, but only a select few can reach as high as the Medium and High Altitude Zones.

To attack a unit in the NOE Zone from the Ground, a weapon must have a Range of 1 or greater. Attacking units in the Low Altitude Zone requires a weapon with a Range of 9 or greater, Medium Altitude requires a Range of 99 or greater, and High Altitude requires a Range of 999 or greater (that's 29,970 metres, or just shy of 100,000 feet).

For the purposes of this Playtest, all Anvil combat will take place within the Ground Zone. Aircraft may occasionally participate in the higher Zones. If your briefing suggests that hostile air power is present, consider equipping a weapon suitable for striking the Medium Altitude Zone. Helicopters will usually fly in the NOE and Low Altitude Zones, while fighters and bombers will tend to stick to the Medium Altitude Zone.

OCCLUSION and WEATHER

The battlefield is not always an open plain with clear weather. When smoke rises and clouds gather, **Occlusion** is used to measure how obscured a unit or structure is.

If a ranged attack's **Line of Sight** to a target crosses into a hex with Occlusion, that Occlusion value is added to that target's Target Number. For instance, a tank that would otherwise have a Target Number of **4** occupies a smoke-filled hex with **2 Occlusion**. Any ranged attack made against this tank must show **6** successes in a cast dice pool, as the Line of Sight for such attacks must be drawn into the hex with Occlusion.

Occlusion **does not** influence melee attacks or attacks which target hexes instead of units. Occlusion hexes you **occupy** do not count for your own attacks, but all others will. Additionally, Occlusion from the same type of source **does not** stack, and the highest value will be used. For instance, three separate smoke grenades thrown in front of an Anvil will act as a single smoke grenade for the purposes of determining Occlusion.

Occlusion on the battlefield can also be derived from **Time of Day** and **Weather**. The Coordinator may choose only one Time of Day for a Sortie. In contrast, the Coordinator may choose multiple types of Weather for the same encounter. The effects of Weather of the same type do not stack. Time of Day and Weather apply to the entire Battlemap during a Sortie and may change over the course of an Operation.

TIME OF DAY

Time of Day comes in the following forms:

- Daylight
  - Combat is unaffected by the Time of Day.
- Twilight
  - Combat is slightly hindered by long shadows and slant light. The entire Battlemap gains +1 Occlusion.
- Night
  - Combat is impeded, but moonlight helps some things stand out. The entire Battlemap gains +2 Occlusion.
- Moonless Night
  - Combat is an arduous task in pitch darkness. The entire Battlemap gains +3 Occlusion.

Occlusion due to Time of Day can be easily circumvented by using the tools at every Anvil's disposal. Many Mortars and Grenade Launchers come with Illuminant Payloads, which provide bright light in a radius once deployed. Use these to your advantage when fighting at night to light up enemy positions while keeping your own shrouded in darkness.

WEATHER

Weather comes in the following forms:

- **Calm**
  - Calm Weather imposes **no penalties** to combat.
- **Winds (Mild)**
  - Indirect attacks **Drift 1** additional hex in the wind's direction, after Drift has been rolled. Wind direction is determined by the Coordinator at the start of the Sortie.
- **Winds (Heavy)**
  - Indirect attacks **Drift 2** additional hexes in the wind's direction, after Drift has been rolled. Wind direction is determined by the Coordinator at the start of the Sortie. **Ballistic** weapons lose **1** die in their cast dice pools. **Energetic** weapons are unaffected.
- **Precipitation (Mild)**
  - All units which track Heat gain **+2 Heat Tolerance**. All TE damage is reduced by **2**.
- **Precipitation (Heavy)**
  - All units which track Heat gain **+4 Heat Tolerance**. Energetic weapons reduce their Range by **1/2**, and all TE damage is reduced by **1/2**. If this brings the damage down to **2** or less, the weapon cannot be activated.
- **Airborne Particulate (Mild)**
  - Occlusion increases by **+1** for every 10 hexes an attack travels.
- **Airborne Particulate (Heavy)**
  - Occlusion increases by **+1** for every 10 hexes an attack travels. The damage of all weapons is reduced by **1** for every 10 hexes an attack travels.
- **Low Clouds**
  - Attacks which enter or exit the Low Altitude Zone treat targets as having **+3 Occlusion**.
- **Glare**
  - All Ballistic and Energetic weapons extend their **Deadzones** by **3**, or gain Deadzone 3 if they don't have one. Melee weapons ignore this condition.
- **Electromagnetic Interference**
  - All units become **Jammed**.

COVER

In addition to battlefield-wide factors of interference, the exact position of a unit on the Battlemap can be greatly helped or hindered by the presence of **Cover**.

Cover reduces any damage which enters it by a set amount equal to its **Density**. Cover Density may be any value equal to or greater than 1.

Damage which enters a hex with Cover is reduced by the Cover's Density. For instance, a 10 KE attack which travels through Cover 4 will deal 6 damage to anything on the opposite side of that Cover.

Targets occupying a hex with Cover benefit from that Cover. Targets may only benefit from Cover if that Cover's height is equal to or greater than half that target's height. Attacks which draw Line of Sight through such Cover reduce their damage by the Cover's Density, and damage reduction due to Cover is additive.

Cover which interacts with damage values equal to or greater than its Density degrades by 1 after the attack activation has been resolved. Cover with a Density of 1 is reduced to Rough Terrain instead of being halved.

For instance, Anvil A fires a gun (dealing 8 damage) at Anvil B, which occupies Cover with a Density of 4. The 8 damage travels to the Cover, is reduced by 4, then travels to Anvil B, where it impacts. The resultant damage is only 4, which may bounce right off of Anvil B's armour. The good news is that an 8 damage attack will reduce that Cover 4 to Cover 3. If the attack had an Exothermic or Demolition Payload, the Cover would be destroyed immediately.

If Anvil A instead engaged Anvil C with the same weapon, and three hexes of Cover with each a Density of 2 separated them, the 8 damage would be reduced to a measly 2. The Cover will still be reduced, but Anvil A may want to consider repositioning.

Attacks which miss still strike a target's Cover and all Cover from which that target potentially benefitted, unless such attacks are made indirectly (see **Attack and Defence: Indirect Attacks and Area of Effect**). Damage reduced to 0 by Cover ceases to travel to the target and no longer influences additional sources of Cover or the target of the attack. Weapons with special Functions or Payloads will not apply those Functions or Payloads to targets if the attack's damage is reduced to 0 by Cover. See **Anvil Gear** for more information on Functions and Payloads.

Generally, Cover comes from Woods hexes, and Woods hexes are normalised to certain values for ease of remembering (see **The Battlefield: Terrain**). Always check with your Coordinator (or the other player) to determine the Cover Density of Woods hexes and other sources of Cover before the Sortie begins!

HIDDEN UNITS

Units may choose to start a Sortie **Hidden**. The Hidden Condition confers a very simple bonus to any units taking advantage of it: that unit may not be targeted for attacks or effects. Area of Effect attacks may still end up hitting a Hidden unit, if the Hidden unit is within the area, but otherwise, the Hidden unit is effectively not on the Battlemap. Hidden units must be placed in Cover. Some units may even be placed inside Structures in this way.

Hidden units are stationary and may not perform the majority of their functions. A Hidden unit ceases to be Hidden if it attacks, spends Move Speed, or takes a Block, Intercept, or Dodge action (see **Attack and Defence: Block, Intercept, and Dodge**).

Hidden units are still added to the Initiative order as if they were deployed normally, however they may not violate the Rule of Twos when organising Initiative.

Hidden units may choose to drop their Hidden Condition by making a surprise attack. Surprise attacks may be made at any time regardless of Initiative (as long as they don't interrupt another activation). Surprise attacks reduce the success criteria of the activation's attack pool by 1, to a minimum of 2. Units which make a surprise attack may not take a Turn until the start of the next Round.

Hidden units may also choose to drop their Hidden Condition by taking their Turn normally when their Initiative comes up in the Initiative order. This can result in particularly nasty surprises!

If a Hidden unit's Cover is destroyed before it reveals itself, it automatically loses the Hidden Condition and joins the game under its own Initiative. Mines, Bombs, and certain other objects are Hidden irrespective of Cover, and can only be revealed (and attacked) with special equipment.

STRUCTURES

Buildings, fortifications, bridges, and other infrastructure may be present on the battlefield. Such objects are known as **Structures**. Structures are a special form of Cover which always block Line of Sight. They degrade like Cover and have Densities which reduce damage by a flat amount.

Structures are objects and, like units, measure their height in Levels. A Structure's height must be equal to or greater than half a unit's height for that unit to benefit from its Cover.

Units may occupy Structure hexes by standing on or moving along their roofs. A Structure may support Load up to its Density value multiplied by 5. For instance, a Structure with 7 Density can support a 30 ton Anvil on its roof. If the Structure is damaged and reduced to 4 Density, however, the Anvil will fall (and potentially take fall damage).

Many Structures are unfit for Anvils to go tromping around on their roofs. Houses, office buildings, and the like are not fit for military equipment to set up shop. Some Structures, like bridges, battlements, and parking garages on the other hand are sturdy enough to easily handle the weight of an entire Platoon of tanks. Just be wary that your enemy can exploit that. See **Attack and Defence: Fall Damage** for fall damage rules.

Some Structures may be **Robust**. Robust Structures have Armour Points and Resistances instead of Density, and are not destroyed until their Armour Points are reduced to 0, at which time they become Rough terrain. Each hex of a Robust Structure possesses its own AP and Resistances (though these are usually the same across the entire Structure). A Robust Structure may support Load up to its Armour Point value multiplied by 10. Robust Structures count as Cover with a Density equal to their AP. Heavy bridges and bunkers are examples of such Robust Structures.

Structures may be composed of multiple conjoined hexes. These multi-hex Structures are automatically destroyed when more than 50% of their constituent hexes have been reduced to 0 Cover Density or 0 AP. For instance, a Structure with 3 conjoined hexes will not be destroyed until 2 or more hexes have been destroyed.

TERRAIN

Battlefields are as diverse as the units which traverse them. Each hex might have a different Terrain feature in it, and some Terrain features can provide tactical benefits to savvy combatants. In some instances, a hex may be composed of multiple Terrain types simultaneously.

Terrain comes in the following forms:

- **Flatland**
  - Flatland hexes cost no additional Move Speed to enter and impose no challenges to traverse.

- **Pavement**
  - Pavement hexes cost no additional Move Speed to enter. Roll a die when terminating Flanking movement on a Pavement hex. On a result of 1, you Sideslip.

- **Rough**
  - You must spend 1 additional Move Speed when entering a Rough hex.

- **Mud**
  - Roll a die when terminating movement or when changing Facing after Flanking on a Mud hex. On a result of 1, 2, or 3, you become Stuck.

- **Sand**
  - Roll a die when terminating movement or when changing Facing after Flanking on a Sand hex. On a result of 1, 2, or 3, you become Slow.

- **Ice**
  - Roll a die when terminating movement or when changing Facing after Flanking on an Ice hex. On any result less than 6 , you Sideslip.

- **Snow**
  - While occupying a Snow hex, you dissipate 1 additional point of Heat any time you dissipate Heat, and you increase your Manoeuvre Cost by 1.

- **Water**
  - You must spend 1 additional Move Speed when entering a Water hex deeper than Depth 0. You may not use Flanking Speed to enter a Water hex deeper than Depth 0, even as part of **Minimum Movement**.
  - While occupying a Water hex deeper than Depth 0, you dissipate 2 additional points of Heat any time you dissipate Heat, and you increase your Manoeuvre Cost by 1.

- **Lava**

- You must spend 1 additional Move Speed when entering a Lava hex. You may not use Flanking Speed to enter a Lava hex, even as part of **Minimum Movement**.
- You generate 5 points of Heat when entering a Lava hex, and you increase your Manoeuvre Cost by 1 while occupying a Lava Hex.
- You also take 10 Special damage to your Mobility Base when terminating movement on a Lava hex.

- **Woods**
  - Entering a Woods hex requires 1 additional point of Move Speed to be spent.
  - Regular Woods have a Cover Density of 2.
  - Heavy Woods have a Cover Density of 4.
  - Woods hexes block Line of Sight if there are 2 or more between two units and a combined total of 4 Density between them.
  - Woods are 3 Levels tall unless otherwise stated.

Remember! Anvils are 3 Levels tall, and so can easily benefit from the Cover provided by most forms of Woods hexes. Anvils can also ford Water up to Depth 2. Any deeper, and your engine will flood!

ATTACK and DEFENCE

Attacking and destroying targets is usually how victory is achieved on the battlefield. Each attack made against a target is carried out in a number of steps, and each step must be completed before moving on (unless it isn't applicable). When all steps have been completed, the attack has resolved and the game continues.

Attack actions are broken down (broadly) into **Declaration**, **Activation**, **Hit**, **Hit Location**, and **Resolution**. All of these aspects comprise a single attack, and a single attack may produce multiple Activations, Hits, or Hit Locations, depending on the Payload and Function used. See **Anvil Gear: Weapon Payloads** for more information on Payloads, and **Anvil Gear: Weapon Functions** for more information on Functions.

Attack steps are as follows:

- DECLARATION -

1. Choose a target
2. Tally up all defensive modifiers for the target to determine its Target Number (TN)
3. Choose the weapon to be used for the attack
   - 3.1. Select the weapon's Payload (if multiple options are available)
   - 3.2. Choose whether the attack will be direct or indirect (if not Melee)
4. Tally up all offensive modifiers for the attacker
   - 4.1. The target may change its Facing if able

- ACTIVATION -

5. Pay the weapon's EN Cost to activate it
   - 5.1. Reduce the weapon's Magazine by the number of attempted Hits
   - 5.2. Add the weapon's Heat value to the attacker

- HIT -

6. Cast dice against the target's cumulative Target Number to Hit
   - 6.1. Compare successes rolled in the dice pool against the target's Target Number

- HIT LOCATION -

7. If a Hit succeeds, determine Hit Location by rolling on the target's Hit Location table
   - 7.1. The target may BID after Hit Location is determined but must decide before damage is assigned
8. Subtract the Hit Location's Resistances from the incoming damage
   - 8.1. Resolve special effects (if applicable)

- RESOLUTION -

9. Resolve attack and proceed with the Turn

MELEE and RANGED ATTACKS

Melee attacks are attacks made via punching, kicking, or with Melee weapons. These attacks **ignore Occlusion and the Obscured Condition**, are always considered to be in Maximum Range, and are not affected by the attacker Flanking. **Ranged** attacks, on the other hand, are made with Ballistic and Energetic weapons and as such **do not ignore Occlusion**, obey the limits of Maximum Range, and do not ignore the attacker Flanking. The term "direct attack" may be used to reference any ranged attack which is not indirect; these attacks still obey the regular rules of ranged attacks.

Do note that melee attacks can only be attempted against targets which are no more than 1 Level higher or lower than the attacking unit's height. For instance, a height 3 Anvil on Level 0 may punch another Anvil standing on a Level 4 hex, provided that hex is adjacent to the attacker. On the other end, a height 3 Anvil on Level 0 may punch a tank occupying a Level -2 hex, as the combined height of the tank is -1, which is within 1 hex of the punching Anvil's height (which starts at 0).

Be sure to check the specific rules of certain melee and ranged attacks! Some melee attacks, like kicks, can't be made against units which are too high up. Some ranged attacks, like indirect attacks, can't be made within normal weapon Range, unless that weapon has a special Function.

INDIRECT ATTACKS

Many weapons are capable of making **indirect** attacks, where the use of a parabolic arc allows an attacker to lob ordnance over Cover or beyond a weapon's listed Range. Recall that **direct** attacks must have both a clear Line of Sight and a clear Line of Fire to attack a target, while **indirect** attacks do not require a clear Line of Sight, and commonly achieve Lines of Fire which ignore Cover and obstructions. Melee attacks may never be indirect.

Weapons making an **indirect** attack treat their Range as being doubled and **may not** make attacks within their standard Range. All indirect attacks increase their success criteria by 1, and results of 6 **do not duplicate**. Special weapons with the Artillery Function ignore these limitations (a case of Specific Trumps General).

Indirect attacks do not require Line of Sight to a *target*, but cannot target *units* unless they have Line of Sight to them. Remember, units are only one type of target you might be shooting at. As a result, indirect attacks commonly have to target hexes (see **Attack and Defence: Defence Value** a few pages down).

The Line of Fire for an indirect attack ignores all objects and terrain except those directly adjacent to the attacker and target. The Line of Fire is considered blocked if the attacker or target is adjacent to an object or terrain which is equal to or greater than their height in Levels.

For instance, a M60A2 tank butted up against a height 4 wall will be safe from indirect attacks from the wall's direction, as the wall is too tall for even high-angle weapons to overcome.

Indirect attacks which miss their target will **Drift**. To calculate Drift, roll 1d6 twice. Treat a result of 1 as the hex closest to the top of the Battlemap, and move clockwise with results of 2, 3, and so on. The attack drifts one hex in that direction. Repeat this step a number of times equal to the degrees of failure between the attack's dice pool and the target's Target Number. For instance, if you needed 6 successes to Hit a target and rolled 3, you would roll 6d6.

For attacks which do not have an Area of Effect, the results of Drift should be ignored.

INDIRECT ATTACKS and AREA of EFFECT

Many weapons which take advantage of indirect attacks are also equipped with **Area of Effect** (AOE) Payloads. These weapons still draw their Line of Sight and Line of Fire like any other, but, hit or miss, the damage and effects of their Payload are now drawn from the hex in which the attack landed. This hex becomes the new origin point for drawing Line of Sight and Line of Fire to other targets caught within the AOE. As a result, the damage which radiates outwards from the AOE may be hampered by Cover, Structures, and other obstructions. Be sure to check the mechanics of any AOE Payloads you intend to use. To learn more about AOE attacks and the weapons which use them, see **Components and Gear: Area of Effect**.

DEFENCE VALUE

All targets possess natural defence known as a **Defence Value** (DV). The Defence Value usually makes up the bulk of a unit's Target Number. Defence Values are never hidden.

Anvils derive their Defence Value from their Core Component, which forms the majority of their silhouette and, consequently, how physically large the Anvil is. Other units have a Defence Value assigned to them within their stats.

The Defence Value is the base Target Number hostile units must meet or beat to successfully Hit a target which is stationary or Cruising.

Flanking units benefit from their Flanking Defence Value until the start of their next Turn, which is equal to their Cruising Defence Value plus 1 unless otherwise stated. Tanks, helicopters, and other non-Anvil combat units will have their Defence Values listed on their readout.

Sometimes, targeting a Structure or hex will be necessary. If the attacker has Line of Sight to that Structure or hex and the attack is not an indirect attack, its Defence Value is **2**. If the attacker has Line of Sight to that Structure or hex and the attack is an indirect attack, its Defence Value is **4**. If the attacker does not have Line of Sight, its Defence Value becomes **6**. Remember, indirect attacks do not require Line of Sight to attack a Structure or hex.

BLOCK, INTERCEPT, and DODGE

All combat units have access to one or more active defences which can help mitigate damage that breaks through their Defence Value. These actions are **Block**, **Intercept**, and **Dodge**, also known as **BID**. Some units, like tanks, can only Intercept attacks. Others, like Anvils, have access to all three BID actions.

For Anvils, BID performance is defined by their relevant stats found in the Core, Electronics, and Mobility Base respectively (see **Components and Gear**). For other combat units, some of which may not have access to all BID actions, BID performance will be listed on their readouts.

Any number of BID actions may be taken during a Round, but only one BID action may be performed per weapon activation, or per attack (in the case of actions like unarmed punching or kicking).

BID actions lose **1** point of Bonus when defending against attacks originating from a unit's Rear Left or Rear Right Arcs. BID actions lose **2** points of Bonus when defending against attacks originating from a unit's Aft Arc. BID Bonuses may be reduced to **0** but cannot become negative.

BLOCK

To Block, a unit must first declare that it is Blocking an incoming attack. The defending unit then spends its Block Cost in EN and may choose which Component takes the incoming damage. The Component chosen must be the same for all Blocked Hits. The defending unit may Block a number of Hits this way equal to its Block Bonus. Units may not assign damage to Components which have been Disabled. Units may Block for adjacent targets and take the attack's damage as if they had been Hit.

INTERCEPT

To Intercept, a unit must first declare that it is Intercepting an incoming attack. The defending unit then spends its Intercept Cost in EN and reduces an incoming Hit's damage by its Intercept Bonus. Melee attacks may not be Intercepted.

DODGE

To Dodge, a unit must first declare that it is Dodging an incoming attack. The defending unit then spends its Dodge Cost in EN and improves its Defence Value by an amount equal to its Dodge Bonus.

DAMAGE and RESISTANCE

METALLURGENT features three distinct damage types: **Kinetic**, **Chemical**, and **Thermal**.

Kinetic Energy (**KE**) damage is delivered through physically or dynamically striking a target with extreme force or fragmentation. KE damage sources commonly rely on high velocity to generate force, such as the long-rod penetrators fired from tanks or armour-piercing rounds fired by gunships. Units that exhibit strong KE Resistance are typically angular and armoured with thick, smooth panels to turn incoming fire away from vital systems.

Chemical Energy (**CE**) damage is delivered through concussive force created by explosions and blast waves. CE damage sources are relatively ignorant of how fast or far they travel, and deliver consistent damage at any distance. Many weapons, such as howitzers, missiles, and grenade launchers, take advantage of this to batter and blast distant targets with high-explosive ordnance. Units that exhibit strong CE Resistance are typically boxy and protected by reactive or separated armour, which helps propel explosive force away from the unit's frame.

Thermal Energy (**TE**) damage is delivered through high-energy emissions and electromagnetic radiation. TE damage sources rely on heat to sear and slag armour. Due to how quickly light and electricity travel, lasers and plasma weapons tend to be highly accurate. Units that exhibit strong TE Resistance are typically curvy and smooth, with channels between panels to help disperse heat.

Special (**S**) damage is a catchall for specific types of damage that are not resisted by anything, such as fall damage, intense space radiation, or underwater pressure. Special damage is not available in Payloads, but can be weaponised with clever thinking.

These damage types interact with the Resistances found on every single unit, from simple APCs to fighter jets. Many units have unified Resistances for ease of tracking and assigning damage, but Anvils rarely have the same Resistances on every Component.

All damage, save for Special damage, is reduced by its related Resistance when striking a target. If a Resistance value is greater than the damage inflicted, the damage is reduced to 0 and is completely ineffective.

Each damage type reacts differently when firing at targets beyond a weapon's Range (see **Components and Gear: Weaponry**).

- KE damage is halved when hitting targets beyond its weapon’s listed Range.
- CE damage remains the same when hitting targets beyond its weapon’s listed Range.
- TE damage becomes 0 when hitting targets beyond its weapon’s listed Range.

FALL DAMAGE

Units which move off of high Elevation, voluntarily or otherwise, may suffer fall damage as they impact ground or water below. In such cases, these units take Special damage based on how far they fall.

Units may descend changes in Elevation equal to or less than their height in Levels without taking damage. For every Level descended past this value, the unit takes 10 S damage to its Mobility Base or equivalent Component, plus 5 S damage to all other Components, upon landing.

For instance, an Anvil leaps from the top of a Level 5 cliff to Level 0 ground. Because the Anvil is 3 Levels tall, and it is descending 5 total Levels, the Anvil will take 20 S damage to the Mobility Base and 10 S damage to all other Components, as it has fallen 2 Levels further than its frame can safely handle. Ouch.

FALLING ON OCCUPIED HEXES

Occasionally, a unit may (intentionally or not) fall onto a hex already occupied by another unit. In these instances, both units will take damage. When falling onto another unit, the falling unit receives fall damage equal to the fall damage it would have normally taken from descending the number of Levels it descended during the fall, plus 20. The unit it collides with also receives S damage equal to the falling unit's gross load divided by 2. This damage is allocated via Hit Location roll, as if it was attacked, and this damage is treated as if it originated from a melee attack. All other Components on this unit receive half of this damage. After damage has been assigned, the occupying unit is moved 1 hex directly away from the falling unit's last direction of travel, and the falling unit now occupies the hex it intended to land on. Units may only be moved in this way if doing so would result in a legal move (of any amount of Move Speed). That is to say, a unit which collides with a falling unit would not be pushed up a cliffside 10 Levels tall, but could be pushed into Woods or off of a cliffside 10 Levels deep. If no such hexes exist, both units are marked as Disabled. They entangle each other and cannot become unstuck without the assistance of heavy lift equipment.

REVERSE-JOINTS and JUMPING

Reverse-Joints are one of six Mobility Base types found in METALLURGENT, and are blessed with the ability to jump. Daringly foolish or foolishly daring pilots may desire to jump onto enemy units to deliver a mighty stomp, but they should be warned that they will take no less than 20 Special damage to their Mobility Base and 10 Special damage to all other Components. They might flatten that tank, but the cost is nothing to sneer at. Other Mobility Bases cannot jump but may find situations favourable to weaponising their mass.

TAKING YOUR TURN

There are many different things to do during your Turn, and even things to do when it isn't your Turn. In all cases, the majority of actions in METALLURGENT require a resource such as EN or Charge to be spent.

During your Turn, after you have completed your Upkeep step but before you enter Emergency Upkeep, you may perform any of the following actions in any order you see fit:

- Move
  - Cruising Speed generates automatically at the start of your Turn, and you may spend it however and whenever you like. Once your Turn ends, you will not be able to spend Cruising Speed again unless you have a special Skill, or an allied Commander is assisting you.
  - Flanking Speed requires Charge to be spent, but otherwise works just like Cruising Speed. You may spend it however you like, but once your Turn is over, it vanishes.

- Activate
  - You may spend the EN Cost of any weapon, piece of equipment, Skill, or other specific contextual action (such as a scenario-dependent action) at any point during your Turn. Remember, Gear with EN Offset (which reduces your Capacity) and EN Drain (which reduces your Output) is activated or deactivated during your Upkeep step.
  - You may activate any number of things any number of times, provided you have the EN to do so. Other stipulations may also exist, such as ensuring you have enough ammo to keep firing the same weapon over and over, or checking to make sure the Skill you want to use has its conditions fulfilled.
  - Activations must be fully resolved before another activation can begin. Effects stemming from an activation (such as a Damage Step or Overheating) must also resolve before another activation can take place.

- Manoeuvre
  - You can always spend your Manoeuvre Cost when it isn't your Turn to change your facing, but during your Turn you have access to a few more options to spend your Charge on. Many Manoeuvres can only be used once per Turn (such as kicking or Flanking), but some can be used multiple times (such as punching).
  - With the exception of Flanking, Manoeuvres must be fully resolved before another one can begin. Effects stemming from a Manoeuvre (such as delivering a Damage Step or Overheating) must also resolve before another Manoeuvre can take place.

- Spend Orders
  - If you have a LCA or Radio and have Chipsets to use, you may spend those Orders at any point during your Turn. You retain your Orders until they are refreshed at the start of your next Turn.

You may be able to perform any of the above actions while it is not your Turn if enabled by a special Skill or through the assistance of an allied Commander. In all cases, the ability to perform actions normally restricted to your Turn on other Turns is both powerful and uncommon, and each instance has its own set of conditions which must be met.

When it is not your Turn, you will likely be spending the majority of your saved up EN on BID actions to mitigate incoming damage. You may have spent your Turn being aggressive and therefore have little EN with which to BID, or you may be playing conservatively. Whatever the case, your BID actions are special actions that you take when an enemy attempts to attack you, and unless you have suffered critical damage or some other terrible effect, you always have them as options.

Remember, regardless of whose Turn it is or what's unfolding in the game, activations must conclude before another one can take place. For instance, you cannot interrupt an enemy attack by declaring your own and shooting him first. You can, however, assist your ally when they BID that enemy's attack, as the option to BID is built into the attack step flowchart (see **Attack and Defence**). Any rare or specific cases which break this rule do so under the pretence of the Golden Rule: Specific Trumps General.

Another valuable thing to remember is that you can always change your Facing when it isn't your Turn by spending your Manoeuvre Cost. This is a valuable ability that all units have which lets them point their armour towards an enemy, or keep a target locked, or simply deny an enemy a shot at sneaking by.

TASKING

While no two Anvils are the same, some Anvils may be tasked with similar objectives on the battlefield, such as taking down high-value targets at range, spearheading an assault, or coordinating tactical and strategic elements. These battlefield roles, or Tasks, are separated into six major types: Vanguard, Sniper, Recon, Defender, Artillerist, and Commander. While Tasks have no mechanical benefit, they are useful for understanding what an Anvil or other mech unit is capable of doing at a glance.

VANGUARD

Acting as both mobile fighter and spearhead, Vanguard units specialise in front-line combat. Vanguards favour blades, shields, and close-quarters weapons like machine guns and shotguns that allow them to take shots on the move. Assault rifles and lightweight missile systems provide Vanguards with midrange capabilities, and some of them may carry heavier weapons to break through hostile heavyweights. Vanguards levy a balance of mobility and armour to avoid and absorb damage while skirmishing with enemy front-line units. Bipedal Mobility Bases are popular choices for Vanguard units due to their blend of agility, speed, and durability.

SNIPER

Sniper units specialise in long-range direct fire combat and the removal of high value targets. Snipers make heavy use of sniper rifles, railguns, long-range cannons, and high-speed missiles. Radar jammers and physical camouflage help the Sniper remain concealed when in position and allow them to strike before the enemy is aware of their presence. Snipers rarely have the armour to engage in a direct firefight but can easily threaten entire battlefields with their weaponry. Reverse-Joint Mobility Bases are common picks for Snipers due their stability and ability to navigate broken terrain with ease

RECON

Fulfilling the scout and spotter roles, Recon units specialise in gathering intelligence and surveilling hostile forces. Recons tend to come light on weaponry, but frequently make use of assault rifles, rockets, and other lightweight midrange weapons. Much of a Recon's Load will go towards radars, optics modules, jammers, and other sensors. Recon units are, by their very nature, light and fast, and so use their incredible speed and mobility to avoid direct confrontation. Hover Mobility Bases allow Recons to move swiftly and ignore troublesome terrain like Ice, Sand, and Water.

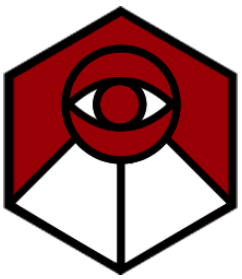
DEFENDER

Hulking fortresses of heavy armour and powerful direct fire weaponry, Defender units specialise in raw longevity. Defenders carry hard-hitting weapons like cannons, shotguns, heavy missile systems, and occasionally artillery weapons. Defenders eschew high mobility for enhanced durability and are commonly co-located with the allies they're protecting. Tracked Mobility Bases possess the armour and Load Tolerance Defenders desire, and a good Defender can lock down an entire grid with crushing firepower.

ARTILLERIST

Loaded with batteries of heavy, indirect fire weapons, Artillerist units specialise at long range siege and area denial, ignorant of any cover or terrain between them and their targets. Artillerists prefer howitzers, mortars, and large-bore artillery cannons, as well as high-arcing missiles and rockets. Typically the slowest Anvils around, Artillerists are neither swift nor agile, but their firepower is second to none. Quadruped Mobility Bases are a natural choice for the quintessential Artillerist, with the stability and Load Tolerance to sustain incredible barrages of explosive ordnance.

COMMANDER



Compared to all other Tasks, the Commander is the most unique, acting as a communications and tactics specialist. Commander units generally stick close to allied units while coordinating assets both on and off the battlefield, such as allied air support, artillery, and even overhead satellites. Commanders gain these capabilities through the use of special Gear called the Local Control Array (LCA), which provides an Anvil with unparalleled tactical control, including a powerful radar system. Wheeled Mobility Bases make good choices for Commanders due to their excellent blend of ground speed and Load Tolerance.

Tasks are rough guidelines which allow players to understand what an Anvil is designed to do at a glance. A Task's definition is not meant to pigeonhole a player into a particular role or combat style, and variations and unique combinations are entirely possible.

COMPONENTS and GEAR

The assembly language of METALLURGENT is written with Components and Gear. Components make up the body of the unit, while Gear makes up its weapons and support systems, like Radars, Radiators, and Optics Modules. Units have anywhere between 1 to 6 Components and can carry up to 12 pieces of Gear. Some units are simple and possess just one Component and one piece of Gear, such as the humble BMP, while other units are much more complex, like the mighty Anvil.

ANVIL COMPONENTS

Anvils are designed to be remarkably modular so as to best suit each individual mission's parameters. Every Anvil is constructed from six Components and one Subcomponent:

- Core
- Mobility Base
- Left Arm
- Right Arm
- Generator
- Electronics
  - Fire Control System

In order to deploy, an Anvil must have all six Components, plus its Fire Control System (FCS). The FCS cannot be targeted or damaged, and therefore is not a true Component. Nevertheless, it is a crucial piece of the Anvil; attempting to target and attack hostile units becomes an exercise in futility without it.

Components always track damage individually. Each Component may also have different Resistances compared to others on the same unit.

For the purposes of playtesting, all Pilots may choose from the entire experimental catalogue of Anvil Components. While Anvils cannot swap Components out in the middle of a Sortie, they may exchange any Components and Gear they desire before and after. If playing an Operation, check the equipment list for available parts. Coordinators may also wish to restrict the use of certain parts for their games, and are welcome to do so (though enough parts should be available to construct a full Anvil, of course). Check out the Assembly Sheet here METALLURGENT Assembly Sheet 2.0.xlsm

THE CORE (CR)

The most important Component of any Anvil is the Core. The Core houses the Pilot, Generator, and framework necessary to support the Anvil's extremities as well as the Anvil's major electrical functions.

If the Core is Disabled, the entire unit is incapable of taking any actions. All Components and Gear go Offline and the unit Powers Down. If the Pilot is still alive, exfiltration is highly recommended.

Core Components have within them a sophisticated gyroscopic flywheel system which helps the Anvil remain upright. When combined with stability systems intrinsic to the Mobility Base, Anvils can perform remarkably agile manoeuvres and withstand high amounts of incoming fire. This gyroscopic system, when combined with the Core's heavy-duty rotator cuff, allows pilots to swivel the Anvil's upper body at high speeds to orient armour and weaponry towards incoming threats.

Different Cores traverse at different speeds and with different degrees of accuracy; these differences are most visible in the Block stats.

Block actions are defined by the Core's two Block stats.

- To Block, an Anvil must first spend its Block Cost.
- While Blocking, an Anvil may Block a number of incoming Hits equal to its Block Bonus.

The overall silhouette of an Anvil is determined in large part by its Core. Defence forms the basic Target Number for the Anvil's Defence Value (DV). Cores with high Defence are usually light and slim but offer less raw durability or offensive potential, while Cores with low Defence are usually larger and more robust, with expanded Hardpoint options.

Cores also have at least one Hardpoint onto which Gear may be mounted. This Hardpoint functions like any other, but restricts Gear with targeting capabilities to the Nose Arc. Some Gear may ignore this restriction.

THE CORE	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
Drain	Generator EN Output is reduced by this amount
Block Bonus	The number of Hits which can be Blocked at once
Block Cost	The amount of EN spent to take Block actions
Defence (DV)	The base Target Number needed to hit this Anvil
Hardpoints	The number of locations for mounting Gear

THE MOBILITY BASE (MB)

The Mobility Base defines the Anvil's locomotive capabilities as well as how much weight it can handle. Among all other Components the Mobility Base has the largest impact on the Anvil's role on the battlefield.

If the Mobility Base is Disabled, the Anvil's Speed and mobility are greatly diminished; while it may still be capable of fighting, any combat it partakes in will be severely lopsided.

Each Mobility Base is tuned to provide the Anvil with heightened agility compared to conventional vehicles. Drivetrains are designed with rapid shifting in mind, allowing Anvils to quickly correct course, halt, or jink past incoming fire. When joined with high-performance stabilisers, even heavyweight Anvils can become nimble fighters.

Some Mobility Bases are decidedly more adroit than others and the differences are obvious when comparing the Dodge stats.

Dodge actions are defined by the Mobility Base's two Dodge stats.

- To Dodge, an Anvil must first spend its Dodge Cost.
- While Dodging, an Anvil gains a bonus to its Defence Value equal to the Dodge Bonus.

The Load of a Mobility Base is not included when calculating how much Load an Anvil is carrying. Mobility Base Load is also not included when calculating Load Tolerance. Mobility Base Load is, however, included when determining the gross weight of the Anvil.

Due to the complexity of the Mobility Base, additional subsections have been included to explain Manoeuvres, Chassis Types, Load Tolerance, and Initiative.

THE MOBILITY BASE	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
Drain	Generator EN Output is reduced by this amount
Dodge Bonus	The bonus to DV when taking Dodge actions
Dodge Cost	The amount of EN spent to take Dodge actions
Cruising Speed	The base Move Speed in hexes
Manoeuvre Cost	The amount of Charge spent to take special actions
Initiative	The intrinsic bonus to Initiative
Chassis Type	The type of locomotion the MB uses
Load Tolerance	This tracker primarily defines Flanking Speed

MANOEUVRES

Many combat units are capable of performing special actions known as Manoeuvres. To conduct any of these actions, a unit must first spend Charge (usually Manoeuvre Cost). Anvils spend Charge to pay for Manoeuvres, but most other units spend EN.

The Manoeuvre Cost is spent when a unit performs the following:

- Flanking
  - You spend your Manoeuvre Cost to gain Flanking Speed. The amount of Flanking Speed gained is dependent on your Load Tolerance. You may not utilise your Flanking Speed before first depleting your Cruising Speed to 0. This action may only be performed once per Round, barring special Skills.

- Kicking/ramming
  - You spend your Manoeuvre Cost to perform a melee attack using your Mobility Base against an adjacent unit in your Nose Arc. Striding Mobility Bases kick, and Driving Mobility Bases ram. The attack uses your Mettle when casting dice plus your Mobility Base's Dodge Bonus. If successful, the attack does KE damage equal to your Mobility Base's Load. The attack's Hit Location is always the Mobility Base, unless the target unit is Low, in which case it rolls on the Hit Location table as normal. The attack terminates movement, and may only be performed once per Round. Kicks and rams may not be performed against any target which is occupying a hex with a height equal to or greater than half the kicking/ramming unit's height. For instance, a height 3 Anvil occupying a Level 0 hex cannot kick a tank which is occupying an adjacent Level 2 hex, but it sure could punch it!

- Punching
  - You spend 1 Charge to perform a melee attack using your Arm against an adjacent unit in that Arm's Arcs. The attack uses your Mettle when casting dice plus your Arm's Agility. If successful, the attack does KE damage equal to half that Arm's Strength. The attack's Hit Location rolls on the Hit Location table as normal. Units may only punch a number of times in a Round equal to their Arm's Agility value, minimum once.

- Special Manoeuvres
  - Some Mobility Bases gain access to special Manoeuvres, such as jumping. Check the Mobility Base's Chassis to determine which special Manoeuvres are available.

- Special Skills
  - Some Skills or contextual actions may require a Manoeuvre, and will incur a Manoeuvre Cost as a result. Check the Skill or specific action to determine whether or not the Manoeuvre Cost must be spent.

CHANGING FACING

All units may change their Facing provided they have the resources to spend to do so. A unit spends one of the following resources to change Facing:

- Move Speed
  - Units of any type may spend 1 Move Speed to change Facing.

- Charge
  - Anvils may spend their Manoeuvre Cost (in Charge) to change Facing.

- EN
  - Units which do not track Charge may spend their Manoeuvre Cost (in EN) to change Facing.

Anvils may perform this action at any point during a Round, including outside of their Turns (see **Attack and Defence** for the timing as it pertains to defending against attacks). Conventional units may not change their Facing when it is not their Turn. Units may select any hex side when changing their Facing and may do so even while moving. Changing Facing counts as a Manoeuvre even if it doesn't use a unit's Manoeuvre Cost.

THE CHASSIS

Mobility Bases come in unique variations, or Chassis, each with strengths and weaknesses.

There are six types of Mobility Base Chassis: Bipeds, Reverse-Joints, and Quadrupeds, which are known collectively as Striding Mobility Bases, and Tracks, Wheels, and Hovers, which are known collectively as Driving Mobility Bases.

BIPEDS

Bipedal Mobility Bases possess two legs constructed in a similar fashion to a human's. They are fairly agile and tend to possess well-rounded stats when compared to other Mobility Base types, making a suitable choice for Vanguard players.

Bipedal Mobility Bases receive the following benefits:

Crouch: Bipeds may choose to go Low by spending 1 Move Speed. While Low, Bipeds pay only 1 additional Move Speed to enter hexes.

Agile: Bipeds may change their Facing without spending a cost once per Round.

Climber: Bipeds may perform the Climb action. Spend your Manoeuvre Cost to convert any amount of Move Speed you currently have into Climb Speed. Climb Speed may be spent to ascend or descend 1 Level of Elevation per point. You may only climb Structures and changes in Terrain Elevation. You may not activate Gear mounted to your Arms while climbing, and you may not climb unless you have at least one non-Disabled Standard Arm. You may end your movement mid-climb, but will fall if you suffer a Damage Step or become Staggered.

REVERSE-JOINTS

Reverse-Joint Mobility Bases possess two legs with an inverse middle joint, similar to bird legs. They tend to be less agile than their Biped counterparts but have the ability to jump and high stability, making them suitable for Sniper players.

Reverse-Joint Mobility Bases receive the following benefits:

Steady: Reverse-Joints may choose to go Low for 1 Move Speed. While Low, Reverse-Joints add 1 Accuracy to all ranged attacks they make.

Jumper: Reverse-Joints may perform the Jump action. When you generate Flanking Move Speed, you may choose to use it to jump instead of Flank. When jumping, you may move up to your Flanking Speed in hexes, and you may ascend a number of Levels up to your Flanking Speed. While jumping, fall damage you receive is halved, unless you collide with another unit (see **Damage and Resistance: Falling on Occupied Hexes**).

QUADRUPEDS

Quadruped Mobility Bases possess four legs designed like spider or canine legs, situated in an X or an H pattern. They boast impressive Load Tolerance and high recoil control in exchange for low Speed, making them suitable for Artillerist players.

Quadruped Mobility Bases receive the following benefits:

Squat: Quadrupeds may choose to go Low at no cost. While Low, Quadrupeds may spend their Manoeuvre Cost to clear the Low Condition at any point during a Round, including outside of their Turn.

Recoil Resistant: Quadrupeds do not terminate movement as a result of activating Gear and do not reduce their Accuracy due to Flanking.

Mountaineer: Quadrupeds may cross Elevation changes equal to half their height in Levels without spending additional Move Speed.

Slam: Quadrupeds may perform the Slam action. Spend your Manoeuvre Cost to perform a melee attack using your Mobility Base against an adjacent unit in either your Nose or Aft Arc. The attack uses your Mettle plus a bonus equal to your current Flanking Speed when casting dice. If successful, the attack does KE damage equal to your Mobility Base's Load multiplied by 2 and inflicts the Low Condition. The attack's Hit Location is always the Mobility Base, unless the target unit is Low, in which case it rolls on the Hit Location table as normal. The attack terminates movement, and may only be performed once per Round.

TRACKS

Tracked Mobility Bases possess heavy caterpillar treads arrayed on either side of a durable body. They generally carry heavy armour and have good Load Tolerance, making them suitable for Defender players.

Tracked Mobility Bases receive the following benefits:

Driving: Tracks cannot become Low.

Rugged: Tracks treat Rough hexes as Flatland hexes.

High-Speed Traverse: Tracks increase the firing Arcs of all weapons by 1 Arc on either side.

Defensible: Tracks reduce the penalty to BID Bonuses in the Rear and Aft Arcs by 1.

WHEELS

Wheeled Mobility Bases possess four to eight heavy-duty wheels supported by a strong suspension. They carry a good amount of Load and retain high Move Speed, making them suitable for Commander players.

Wheeled Mobility Bases receive the following benefits:

Driving: Wheels cannot become Low.

Grip: Wheels generate an additional 1 Cruising Speed and 1 Flanking Speed while occupying Flatland or Pavement hexes.

Sideswipe: Wheels may perform the Sideswipe action. Spend your Manoeuvre Cost to perform a melee attack using your Mobility Base against an adjacent unit in your Nose, Forward Left, or Forward Right Arc. This attack uses your Mettle plus your current Flanking Speed as dice. If successful, the attack does KE damage equal to your Mobility Base's Load. The attack's Hit Location is always the Mobility Base, unless the target unit is Low, in which case it rolls on the Hit Location table as normal. Upon resolving the attack, you may move to any hex adjacent to your target and choose a new Facing for free, as long as you could enter that hex normally. The attack terminates movement, and may only be performed once per Round.

HOVERS

Hover Mobility Bases possess powerful fans and a heavy-duty skirt which allows them to float on a cushion of air. They are remarkably fast and can cross many types of terrain without issue, making them suitable for Recon players.

Hover Mobility Bases receive the following benefits:

Driving: Hovers cannot become Low.

Air Cushion: Hovers treat Pavement, Sand, Mud, Ice, Snow, and Water hexes as Flatland hexes. Hovers treat Lava hexes as Flatland hexes, but generate 2 Heat when entering a Lava hex. Hovers must spend 1 additional Move Speed to enter Woods hexes of any type.

Strafe: Hovers may move without aligning their Facing to the direction of travel.

Inertia: Hovers sideslip when terminating movement due to an action (such as activating certain weapons) or when their Flanking Speed is depleted to 0.

LOAD TOLERANCE

All Anvil Mobility Bases have a tracker which influences their Flanking Speed. Load is tracked in Standard Tons (ST). Each Mobility Base handles Load differently and even minor adjustments can result in gaining or losing Speed.

To determine an Anvil's encumbrance and its Flanking Speed, add up the Load of all Components and Gear except for the Mobility Base. Compare the final result to the Load Tolerance tracker. If the result is equal to or less than a breakpoint value, the Anvil gains the benefits of that breakpoint. If the Load is greater than the highest value the Anvil is overloaded and may not deploy.

Load Tolerances may also influence an Anvil's Cruising Speed and Initiative, depending on the Mobility Base in question. Jettisoning Gear (see **Components and Gear: Jettison**) may put you at or underneath a breakpoint, at which time you refactor your Load Tolerance. Gear which is destroyed is removed from your Anvil, and as a result may achieve a similar effect.

Below is an **example** of a Load Tolerance breakpoint spread. Every Mobility Base has a unique Load Tolerance.

20 ST	22 ST	26 ST	30 ST	32 ST
+1 Cruise +4 Flank +2 Init.	+4 Flank +2 Init.	+3 Flank +1 Init.	+2 Flank +0 Init.	-1 Cruise +2 Flank -1 Init.

INITIATIVE

All units have an **Initiative** which dictates the order in which they act during a Round. The unit with the **highest Initiative** takes the first Turn in a Round, and units continue to act in order from highest to **lowest Initiative**. Units with equivalent Initiative roll 1d6 and the unit with the higher value decides the order. Allied units with equivalent Initiative may decide who goes first without rolling.

No more than **two** Anvils or Platoons belonging to the same team may act in sequence in a Round. In such cases where there are more than two Anvils or Platoons acting in a row, the Anvil or Platoon with the lowest Initiative instead reduces its Initiative until it acts immediately after the next enemy unit or Platoon.

For instance, a Coordinator has two Platoons of T-72 tanks, each with an Initiative of 6, and they are immediately followed by a M60 tank Platoon with an Initiative of 5. The players have two Anvils with Initiatives of 3 and 1. The Coordinator would keep the two T-72 tank Platoons in their normal order, but reduce the Initiative of the M60 tank Platoon to 2, so that it doesn't violate the "rule of two." The final order is T-72, T-72, Anvil, M60, Anvil.

Initiative for Anvils is based on two elements: the Anvil's Mobility Base Initiative value and the Anvil's Load Tolerance. The base Initiative value found on each Mobility Base is further modified by the Load Tolerance breakpoint the Anvil is currently at. Generally-speaking, lighter-weight Mobility Bases have higher Initiative, while heavier ones have lower Initiative, and the same holds true for Load Tolerances: light loads create higher Initiatives, while heavy loads sink Initiatives.

A unit's Initiative determines not only when it goes during a Round, but also which Deployment Zone (DZ) it may use. Units with high Initiative can make use of DZs much closer to the centre of the map, which means less time running and more time gunning.

When deploying at the start of a Sortie, refer to the following list:

- 0-2 Initiative: Green DZ
- 3-5 Initiative: Blue DZ
- 6-8 Initiative: Purple DZ
- 9+ Initiative: White DZ or any hex that is 6 or more hexes away from the nearest hostile unit.

The Green DZ is always the shallowest, followed by the Blue. Purple DZs tend to be uniquely-shaped based on the Battlemap, and White DZs are almost always unique. Units may choose to use DZs in a lower Initiative block. For instance, an Anvil with 9 Initiative may choose to use the green DZ if they wish.

Hostile units have their own DZs, of course, and you may occasionally spot a special Yellow DZ, which can be made available for both sides of the fight.

Initiative is a largely fixed value during a Sortie. Units may jettison Gear to gain additional Initiative if doing so would reduce their Load enough to yield a new Initiative value. See **Components and Gear: Jettison** for jettison rules. It is recommended that players who intend to jettison Gear perform the calculations before the Sortie begins, to keep the game's tempo up.

THE ARMS (LA/RA)

Arms set Anvils apart from other combat units. The Arms carry weaponry, equipment, and their manipulators are capable of grasping, lifting, and interacting with objects.

If the Arms are Disabled, any Gear mounted to them goes Offline and cannot be used. In return for this increased vulnerability, the Arms are flexible enough to achieve wider firing Arcs.

Arms are divided into two major categories: Standard Arms and Weapon Arms. Standard Arms have manipulators and additional Hardpoints while Weapon Arms do not. Weapon Arms trade the flexibility of a manipulator and Hardpoints for integrated weapon systems.

STANDARD ARMS

Standard Arms are rugged, actuated structures able to carry all kinds of weapons and equipment, from small-calibre machine guns to large-bore howitzers.

Arms with high Agility values are designed for quickly and accurately moving in close-combat situations. When making an attack against a target within 3 hexes with a weapon mounted to an Arm, or when punching, add or subtract a number of bonus dice equal to the Arm's Agility to the attack's dice pool.

Strength influences how much Load Arms can carry as well as how much damage melee attacks with an Arm deal. The combined Load of all Gear mounted to an Arm may not be greater than the Arm's Strength.

Additionally, when making an attack with a melee weapon that deals KE damage, add half of the Arm's Strength value to the damage dealt. Punches deal KE damage equal to half of the Arm's Strength.

Most Standard Arms have at least one Hardpoint onto which Gear may be mounted. This Hardpoint functions like any other, but restricts Gear to specific Arcs. Gear mounted on the Left Arm may only Activate in the Nose, Forward Left, and Rear Left Arcs; Gear mounted on the Right Arm may only Activate in the Nose, Forward Right, and Rear Right Arcs. Some Gear may ignore this restriction.

THE STANDARD ARM	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
Drain	Generator EN Output is reduced by this amount
Agility	The number of bonus dice added to close-range attacks
Strength	The maximum Load the Arm can tolerate
Hardpoints	The number of locations for mounting Gear

WEAPON ARMS

Weapon Arms eschew a manipulator and customisable Hardpoints for an integrated weapon. As such, Weapon Arms cannot grasp objects or make physical attacks, but what they lack in versatility they make up for in quality. The integrated weapons of Weapon Arms count as Primary weapons.

Weapon Arms do not have Strength values but do have Agility values. This Agility is added to close-range attacks (within 3 hexes) just like a Standard Arm.

The weapons integrated into a Weapon Arm operate the same way as modular weapons. Some Weapon Arms may offer multiple Payload options. Check the integrated weapon to determine available Payloads.

For details on weaponry, see **Components and Gear: Weaponry**.

THE WEAPON ARM	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
Drain	Generator EN Output is reduced by this amount
Agility	The number of bonus dice added to close-range attacks
Weapon Type	The generic identifier of the integrated weapon
Damage	The amount and type of damage the weapon does
Range	The optimal range in hexes attacks may be made
Accuracy	Attacks gain this many bonus dice in cast dice pools
EN Cost	The amount of EN spent to activate this weapon
Heat	The amount of Heat generated upon activation
Magazine	The amount of ammunition loaded at once
Reserve	The amount of ammunition used for reloading
Function	The specific capabilities intrinsic to this weapon

THE GENERATOR (GN)

The Generator propels the Anvil into combat and provides it with thermal and electrical regulation systems, as well as a power plant to run all major and minor functions.

If the Generator is Disabled, the Anvil loses power to most functions and may become completely inoperative. Under particularly stressful situations the Generator may even melt or explode.

While Generators come in various flavours, such as ICE, fuel cell, and electronuclear, each one is capable of producing enough power to service an Anvil and all of its pieces. Some Generators boast high output while others muster deep reserves. Both types have their distinct advantages, and some strike a balance between the two extremes.

Arguably the most critical aspect of the Generator (and Anvil as a whole) is its EN Output. All Components (except for the Generator) have a Drain stat which reduces EN Output by the listed amount. If a unit's EN Output is too low, it may have trouble sustaining combat, and if a unit's EN Output is too high, it may be wasting potential as excess EN is lost.

Generators with high EN Capacity can help mitigate wasted energy. As a general rule, the higher a Generator's EN Capacity, the lower its EN Output, and vice-versa.

During a unit's Upkeep, it regains an amount of EN equal to its EN Output, up to a maximum value equal to its EN Capacity.

Fuel is a strategic resource and influences how many times an Anvil can refill its Charge Capacity before running out. Charge is spent on Manoeuvres, and while Anvils can operate without any Charge, their combat effectiveness will be diminished.

All Generators have sophisticated thermal regulation systems, reflected in their Heat Tolerance and Cooling type. Some Generators handle Heat well, while others are prone to Overheating.

During a unit's Upkeep, it cools off according to its Cooling type, to a minimum of 0 Heat.

THE GENERATOR	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
EN Output	The amount of EN generated during Upkeep phases
EN Capacity	The amount of EN which can be held at any given time
Fuel Capacity	The amount of Fuel which can be carried onboard
Charge Capacity	The amount of Charge which can be held at any given time
Heat Tolerance	The maximum Heat the Generator can withstand
Cooling	Heat dissipation is dependent on Cooling type

COOLING

With compact power plants comes sophisticated thermal management systems. Anvils generate tremendous heat when operating at full capacity, and so must rely on a series of networked cooling systems to remain functional. Overheating can have severe consequences if experienced in the middle of battle. Conventional combat units also have cooling systems if they track Heat, though some (such as tanks and helicopters) do not.

There are three types of Cooling available to an Anvil:

Gas-Cooled Generators are the most common type. They rely on airflow and large banks of heatsinks to passively bleed Heat from the Anvil's systems.

At the start of the Anvil's turn, it reduces accumulated Heat by a value based on local environmental conditions:

- Cold environments grant 12 Heat dissipation
- Temperate environments grant 10 Heat dissipation
- Hot environments grant 8 Heat dissipation
- Modest Winds and Heavy Winds improve Heat dissipation by 1
- Precipitation and Heavy Precipitation improves Heat dissipation by 2
- Airborne Particulate reduces Heat dissipation by 2

Liquid-Cooled Generators are also fairly common. They use fluid coolant pumped through heat exchangers to wick Heat away from critical systems. This coolant is constantly recycled and provides reliable Heat dissipation.

At the start of the Anvil's turn, it reduces its accumulated Heat by half of its current value. Additionally, Liquid-Cooled Generators are influenced by a few environmental factors:

- Cold environments increase Heat dissipation by 1
- Hot environments decrease Heat dissipation by 1
- Precipitation and Heavy Precipitation increases Heat dissipation by 1

Plasma-Cooled Generators are the most novel of the three types. They extrude Heat through magnetic channels layered behind thick thermal glass, which turns bright orange while active. This system is the most isolated of the three, making Plasma-Cooled Generators excellent choices for Anvils that intend to operate in hostile environmental conditions.

At the start of the Anvil's turn it reduces accumulated Heat to 0.

Generators always begin a Sortie with full EN and 0 Heat. Fuel is tracked from Sortie to Sortie, and if an Anvil has not received resupply, it may enter a scenario with a lighter than normal Fuel tank.

FUEL and CHARGE

No combat unit can run without Fuel, and Anvils are no different. The compound used by Anvils is robust and burns efficiently, but Anvil Generators tend to have modest Fuel tanks, limiting their long-range strategic movement. Outside of combat, this allows the Anvil to move overland at a respectable speed, but the stress of combat will eat through Fuel reserves quickly.

Before deployment, any unit which tracks Fuel may reduce the Fuel in its tank by 1 to gain Charge equal to its Charge Capacity. Units without at least 1 point of Fuel in their tank may not gain Charge, but may keep any residual Charge leftover from a previous Sortie. Units with 0 Fuel may continue to participate in combat, but gain the Running on Fumes Condition. This Condition automatically clears when the unit obtains 1 or more points of Fuel, and cannot be cleared any other way.

Charge is spent on Manoeuvres, such as Flanking, kicking, jumping, or turning, or any number of special Skills available to talented pilots. A unit must have equal or greater Charge remaining to pay an action's Manoeuvre Cost, and cannot spend more Charge than what it currently possesses.

Units may Burn Fuel during a Sortie to pay for a Manoeuvre instead of using Charge. 1 point of Fuel may be spent to pay for a Manoeuvre Cost regardless of how high that cost is. Units may do this at any time but only once per Round. Units which do not have Charge cannot Burn Fuel.

OVERHEATING

Pilots who push their Anvils too hard, either intentionally or accidentally, run the risk of Overheating their Generator. Overheating can damage the Generator and other systems, and in some dramatic cases, cause pieces of the Anvil to melt. Different Cooling types handle Overheating differently.

Generators Overheat when they accumulate more Heat than their Heat Tolerance. Anvils may continue to generate Heat after reaching this threshold, but the consequences may be severe. Overheating applies after the triggering action resolves.

Gas-Cooled Generators retain most of their dissipative qualities at the cost of distributing thermal stress to the Anvil's Components. A Gas-Cooled Generator suffers the following effects immediately while the Anvil is Overheated:

- Gear with EN Drain or EN Offset deactivates
- The FCS' Maximum Range is reduced to its Reliable Range
- Base EN Output is reduced by half
- Base Heat dissipation is increased by 3
- All Components take 2 Special damage, plus another 2 Special damage each time the unit gains Heat

Liquid-Cooled Generators suffer greatly when Overheating but keep the rest of the Anvil cool in an attempt to limit the spread of damage. A Liquid-Cooled Generator suffers the following effects immediately while the Anvil is Overheated:

- Gear with EN Drain or EN Offset deactivates
- The FCS' Maximum Range is reduced to its Reliable Range
- Base EN Capacity is reduced by half
- The Generator takes 4 Special damage, plus another 4 Special damage at the end of the unit's turn

Plasma-Cooled Generators are incredibly dangerous when Overheating and can cause significant damage to the Anvil. A Plasma-Cooled Generator suffers the following effects immediately while Overheated:

- Gear with EN Drain or EN Offset deactivates
- The FCS' Maximum Range is reduced to its Reliable Range
- All Heat dissipation (including that from Radiators) becomes 0 until the end of your next turn and returns to normal afterwards (the Anvil's Heat is considered to be equal to its Heat Tolerance plus 1)
- Spending EN deals Special damage to the relevant Component equal to the EN Cost

Once the Anvil's Heat is equal to or below its Heat Tolerance, it stops Overheating and returns to normal function. Generators may advance a Damage Step while Overheating due to stress. In such cases, the results of Overheating are resolved before the results of the Damage Step are resolved.

THE ELECTRONICS (EL)

An Anvil's Components cannot perform to their fullest extent without the Electronics, which act as the Anvil's eyes and ears.

If the Electronics are Disabled, the Anvil can lose its sensory awareness, communications, and protection against electronic warfare. The Fire Control System is a subcomponent of the Electronics, and damage to the Electronics may result in degraded targeting and tracking capabilities.

As the concept of the Anvil was hammered out, the need for easily replaceable (and repairable) electronic warfare systems was identified, resulting in the development of Electronics packages. The Electronics Component is only partially distributed throughout the entire frame; what isn't integrated forms a kind of head for the Anvil, which is gimballed and carries the Fire Control System. The cameras, early warning receivers, and sensors located on the Anvil's body and within the head allow the unit to detect incoming fire and react accordingly.

Active defensive measures, such as particulate screens, close-in weapons, and dynamic armour plating join with the Electronics' tracking capabilities and allow the Anvil to interdict nearby threats. The Intercept stats determine how proficient an Anvil is at interfering with inbound ordnance before it ever strikes its frame.

Intercept actions are defined by the Electronics' two Intercept stats.

- To Intercept, an Anvil must first spend its Intercept Cost.
- While Intercepting, an Anvil gains a number of damage reduction points equal to the Intercept Bonus, which are spent on a single instance of incoming damage.

Each Electronics Component is outfitted with a camera system, which in turn augments the Fire Control System's acquisition range. The heavier the armour, the smaller the cameras tend to be.

The Electronics also influences how the Anvil diagnoses and treats internal system malfunctions. Only one Error can be purged at a time, so be mindful of how expensive your Refresh Cost can get.

THE ELECTRONICS	
Armour Points (AP)	The raw health of the Component
Kinetic (KE) Resistance	Incoming KE damage is reduced by this amount
Chemical (CE) Resistance	Incoming CE damage is reduced by this amount
Thermal (TE) Resistance	Incoming TE damage is reduced by this amount
Load	The weight of the Component
Drain	Generator EN Output is reduced by this amount
Intercept Bonus	The bonus to Resistances when taking Intercept actions
Intercept Cost	The amount of EN spent to take Intercept actions
Camera Modifier	FCS Maximum Range is modified by this value
Refresh Cost	The amount of EN spent to purge Errors

THE FIRE CONTROL SYSTEM

While not a major Component, the Fire Control System (FCS) is nevertheless a critical piece of the Anvil. The FCS handles targeting and gunnery control as well as passive counter-ECM and visual acquisition modes. The FCS cannot be targeted or destroyed but if the Electronics cease to function, the FCS is likely to get knocked out.

The FCS is a complex search and track system designed to augment an Anvil pilot's gunnery skill. Depending on the manufacturer, a FCS may be tuned for close or long range, or grant some type of special targeting ability normally found on external Gear.

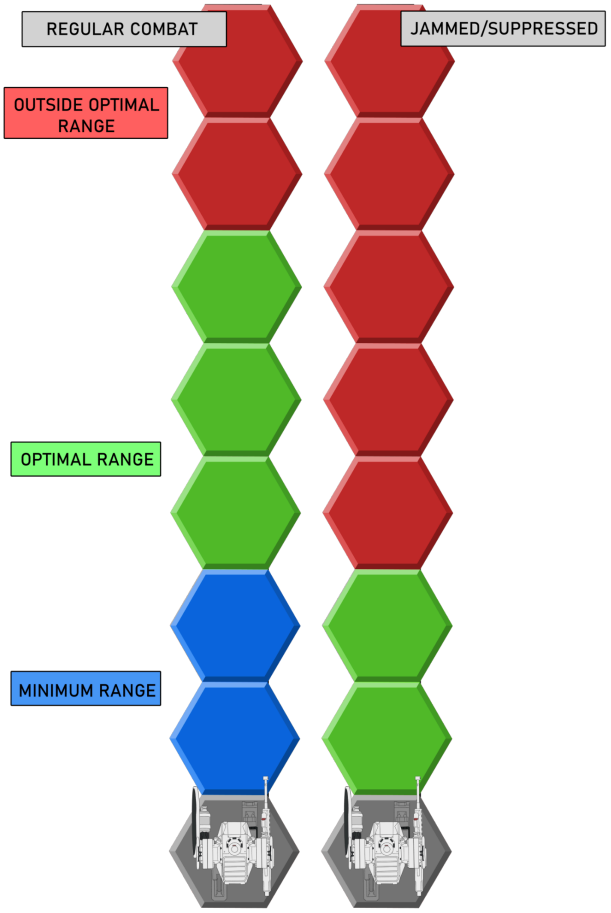
Ranged attacks made within Maximum Range suffer no penalties to accuracy. Ranged attacks made outside of Maximum Range are harder to hit; cast dice increase success criteria by 1. Some equipment, such as Radars, can extend the FCS' Maximum Range within their search arcs, and some weapons, like Flamethrowers, can ignore the FCS' limits.

If the FCS falls under the effects of Jamming, or is otherwise suppressed, the Reliable Range is treated as the Maximum Range instead. The Reliable Range cannot be Jammed or suppressed, and is designed to be reliable even in harshly-contested environments.

Targeting Types provide various benefits within Optimal and Reliable Ranges, and are nullified when Jammed unless otherwise stated.

Camera Modifiers from the Electronics cannot reduce a FCS' Maximum Range to a value below its Reliable Range.

THE FCS	
Maximum Range	Ranged attacks beyond this range suffer penalties
Reliable Range	The range at which the FCS cannot be Jammed
Targeting Type	Different targeting types confer different bonuses
Drain	Generator EN Output is reduced by this amount



TARGETING TYPES

Combat units have numerous tasks on the battlefield and, as such, are equipped with numerous types of targeting and tracking systems suited for specific doctrinal application. Each FCS comes with a single innate Targeting Type. Targeting Types confer special bonuses within Maximum Range and Reliable Range, and these bonuses stack.

- **Optical (OP)**
  Somewhat rare to see on Anvils, inexpensive or obsolete units use Optical targeting.
  - Maximum Range: Gain +1 Accuracy on attacks if the Weather is Clear and the Time of Day is Daylight.

- **Infrared (IR)**
  Infrared radar is designed to cut through smoke, fog, and the shroud of night.
  - Maximum Range: Gain Accuracy on direct attacks equal to the amount of Occlusion your target benefits from.
  - Reliable Range: Gain +1 Accuracy on direct attacks if your target benefits from any Occlusion.

- **Laser (LS)**
  Laser targeting systems are designed to determine ranging and speed of painted targets.
  - Maximum Range: Once per Round, you may choose a target within Line of Sight and inflict the Painted Condition on them.
  - Reliable Range: Gain +1 Accuracy on ranged attacks *unless* your target is Flanking.

- **Tracking (TR)**
  Tracking radars provide high-fidelity telemetry of units within range, allowing for accurate fire to be directed against targets.
  - Maximum Range: Once per Round, you may choose a target within Line of Sight and inflict the Locked Condition on them.
  - Reliable Range: Gain +1 Accuracy on ranged attacks *if* your target is Flanking.

- **Spotting (SP)**
  Spotting radars are designed to highlight threats in dense cover or obscuration.
  - Maximum Range: Ignore up to 4 points of Cover when calculating damage against your target.
  - Reliable Range: Ignore up to 2 points of Cover when calculating damage against your target.

- **EWACS (EW)**
  Early warning and control systems provide powerful airborne tracking and interception capabilities.
  - Maximum Range: Gain +1 Accuracy when targeting Airborne targets, plus gain Air Defence Intercept (see below).
  - Reliable Range: Gain +1 Accuracy when targeting Airborne targets, plus reduce by half the damage received from Mines, Bombs, and surprise attacks originating from within Reliable Range.

Regardless of Targeting Type, each FCS suffers no penalties for attacking targets within Maximum Range.

AIR DEFENCE INTERCEPT

With an EWACS FCS or EWACS Radar, units gain access to Air Defence Intercept. This grants the user's weapons the Interceptor Function unless that weapon has the Artillery Function.

Weapons benefitting from this Function may make Interceptor actions against attacks which Hit targets within that weapon's Range and firing Arc. Air Defence Intercept Interceptor actions must be made within FCS Maximum Range, and you must be able to draw Line of Sight to the triggering attack's Line of Fire.

IFF and STENO

Units automatically make an Identification of Friend or Foe (IFF) check when within Optimal Range and Line of Sight of a target. IFF reveals the allegiance of a unit, and such units are marked as friendly, hostile, neutral, or unknown. Such checks do not require a target to be within a unit's Nose Arc.

In addition to this automatic IFF handshake, Anvils are equipped with a common warbook system known as STENO (Syntactic Target Entity Nomenclature Omnibus). The STENO system operates in the K-Band, using observational radar to identify and catalogue targeted units, then check those units against a database. If a match is found, the STENO system will provide the pilot with that unit's basic specifications, including armour thickness, groundspeed, mounted weaponry, and even an estimation of resilience versus different types of damage.

Players may request the following information once they have achieved Line of Sight with another unit:

- Unit team (allied, hostile, neutral, unknown)
- Unit type and model
  - For example, "M60 Starship, tank"
- Gear name and type
  - For example, "M162 Main Gun, tank cannon"
- Maximum AP of all Components and highest Resistance per Component
  - If Resistances are the same, or if two Resistances compete for highest, the players may know each one
- Component names and types
  - For example, "M60 Starship hull, M60 Starship turret"

Players may also ask to visually identify Gear or Components on a target, such as identifying a Shield or a Wheeled Mobility Base, if their FCS is compromised or otherwise unable to provide a STENO readout. A rough estimation of sustained damage may also be requested, but Coordinators should avoid providing exact numbers.

STENO is smart, but its database is limited. The Coordinator may wish to obfuscate unit information to create narrative tension, surprise players, or otherwise facilitate a specific scene. In such cases, the mystery unit's image is added to STENO's warbook, but specific stats are not added until that unit has been destroyed or captured.

ANVIL GEAR

Gear is made up of weapons and equipment. Gear is mounted to Hardpoints found on the Core and Standard Arms of an Anvil. An Anvil may not mount more Gear than it has Hardpoints, and units are not required to fill each Hardpoint with Gear.

All Gear has a Load value, which is added to the total Load placed upon the Mobility Base. Some Gear may have an EN Cost (such as Target Designators), EN Drain (such as Radars), or EN Offset (such as Local Control Arrays), and some may have no impact on an Anvil's EN (such as Shields).

Gear with EN Drain or EN Offset may begin the Sortie active or inactive. Units may activate such Gear at the start of their turn during Upkeep, whereupon they immediately gain the benefits of the activated Gear, unless such equipment specifies otherwise. Gear activated this way remains active until deactivated during Upkeep. Gear may not be deactivated on the same turn it was activated.

All Gear has a Size. Size determines how many Hardpoints a piece of Gear requires to fit onto a Component. Gear with a Size greater than 1 may not split its mounting location between two Components.

Weapons have three Classes: Primary, Secondary, and Tertiary. Primary weapons are typically light and easy to handle, and may be activated without terminating movement. Secondary weapons are typically heavier and more powerful than their Primary counterparts but terminate movement upon activation. Tertiary weapons are very light and typically expended upon use, and, like Primaries, may also be activated without terminating movement.

An Anvil may mount:

- Up to 2 Primary Weapons
- Up to 2 Secondary Weapons
- Up to 2 Tertiary Weapons
- Up to 6 pieces of equipment

Only 2 of the same type of equipment may be mounted. For instance, an Anvil cannot carry three Radiators, even if each Radiator has a different name. This restriction is not in place for weapons due to the aforementioned "rule of twos."

Some Gear may have special mounting restrictions, such as being Arm- or Core-mount only. Check the specific rules for any Gear you plan to use to ensure that it's allocated to the correct Component (after all, placing a Physical Blade on your Core would have pretty limited utility).

JETTISON

Anvils may jettison Gear during combat to improve their performance. Once jettisoned, Gear may not be retrieved or used until the Sortie is finished. Jettisoning Gear requires no EN and may be done at any time, but Gear which is mounted to the Core may not be jettisoned. Jettisoned Gear turns off immediately, does not provide any benefits, and reduces the Anvil's Load Tolerance by its Load.

WEAPONRY

Anvils carry weapons of all shapes and sizes, makes and models. The versatility of the Anvil allows for multivariate loadouts designed for generalist work or hyper-specialisation, and many designs in between.

WEAPONRY	
Class	Primary, Secondary, or Tertiary denomination
Type	The generic identifier of the weapon
Load	The weight of the weapon
Damage	The amount and type of damage the weapon does
Range	The optimal range in hexes attacks may be made
Accuracy	Attacks gain this many bonus dice in cast dice pools
EN Cost	The amount of EN spent to activate this weapon
Heat	The amount of Heat generated upon activation
Magazine	The amount of ammunition loaded at once
Reserve	The amount of ammunition used for reloading
Size	The number of Hardpoints this weapon consumes
Function	The specific capabilities intrinsic to this weapon
Payloads	The types of ammunition available to this weapon

Weapons are broadly classified into **Primary**, **Secondary**, and **Tertiary** Classes, and from there further differentiated by **Type** (Assault Rifle, Bomb Dispenser, Laser Blade, etc.).

All weapons have a listed **damage** stat, which denotes the amount and type of damage dealt by the weapon using its regular **Payload**. Targets successfully Hit by weapons suffer the listed damage, unless a Payload other than the standard one is being used. To activate a weapon, the user must first spend its EN Cost and add its Heat to their Generator. Weapons may not be activated if the user does not have the necessary EN, but may be if the Heat would put them over their Heat Tolerance.

Weapon **Range** is the maximum number of hexes at which an attack may be made against a target. **Ballistic** weapons may use the indirect fire rules (see **Attack and Defence: Indirect Attacks**) to push their Range further out, at the cost of accuracy. **Energetic** weapons may also be able to fire indirectly, but attacking targets beyond their base Range will reduce their damage to 0.

Accuracy is another important stat to remember when tallying up offensive modifiers. Many weapons have at least 1 inbuilt Accuracy, and some even have up to 4. A few weapons (usually ones with high rates of fire) have negative Accuracy values, and apply those upon casting dice.

Each time the weapon is activated, it draws ammunition from its **Magazine**. The Magazine may be singular (in the case of most weapons), doubled (in the case of Dual Feed weapons), or nonexistent (in the case of Physical Blades). In all cases, for every Hit attempted by a weapon, the ammunition in its Magazine is reduced by 1. Weapons with the Burst Function, for instance, will reduce their ammunition by the same value as the Burst value.

Reserves form the pool of ammunition weapons use for replenishment outside of combat. Reserve ammunition may not be used during combat. Anvils may not carry more Reserve ammunition than that which is listed in the specific weapon's stat block, but may take advantage of narrative circumstances or strategic assistance, such as a support element or mission-specific equipment. Magazine ammunition is replenished 1 to 1 from Reserve ammunition.

The **Size** of the weapon dictates how many Hardpoints it takes up. Weapons must be allocated to a single Component- that is to say, their Size may not be split up between two separate Components.

AREA of EFFECT

Area of Effect (AOE) Functions and Payloads grant weapons the ability to deliver damage to multiple targets at once. AOE damage automatically hits targets as it extends from its origin point. Weapons with the Linear and Projector Functions do not need to roll to Hit targets, they simply need to be within Range and Line of Sight.

Weapons which use the Blast and Cluster Payloads must still make an attack roll against a target, and if they miss, the attack may Drift far enough away that no damage is dealt to the intended target. However, as both Blast and Cluster generate an AOE originating from whichever target they landed on (such as a hex), they will still deliver damage automatically to any targets within AOE range. See **Components and Gear: Weapon Payloads** for information on Payloads.

For instance, an Anvil standing in the open is attacked by an enemy artillery unit. The artillery unit attempts to Hit the Anvil dead-on, and rolls against the Anvil's DV of 5. The artillery unit comes up short, and the attack Drifts. If the attack only Drifts a single hex away, the Anvil is still automatically Hit by the AOE. If the attack Drifts a few more hexes, the Anvil may be outside of the AOE's radius, and therefore safe.

AOE damage is reduced by Cover like any other attack as it travels to targets. The simplest way to resolve these sorts of activations is to draw a line from the origin of the AOE attack to all affected targets and assign damage based on each line. Remember, Cover only degrades once the attack has fully resolved.

AOE damage always rolls a Hit Location and deals its listed damage to that Component. All other Components on the defending unit are Hit automatically for half of the damage of the initial Hit. Resistances are calculated per Component. Because each instance of damage generated by an AOE attack is a Hit, each one can be Blocked (as if a unit was Blocking a Scatter or Burst type weapon).

Intercepting an AOE attack reduces the damage of the initial Hit, and all secondary Hits use that new value in their calculation. For instance, an Anvil is attacked by an incoming artillery shell which deals 20 CE damage with a Blast Payload. The Anvil Intercepts the attack, reducing the damage by 5. The resultant 15 damage strikes the Anvil on the Core, and deals 8 to all of its other Components.

AOE attacks must be Intercepted individually by targets within the AOE, unless an Intercepting unit is using Gear (such as a CIWS or APS), in which case the reduction applies to the entire damage resolution. In such instances, remember to get your Defenders to Intercept first! Otherwise, you may be taking needless damage.

For instance, an armoured vehicle with a CIWS and an Anvil are both within the AOE of an artillery blast which will deal 15 CE damage to both of them. The armoured vehicle Intercepts, using its CIWS, and reduces the damage of the incoming blast by 8, resulting in both units taking 7 CE damage. The Anvil may then Intercept, using its Electronics, to further reduce the damage it takes, but this damage reduction will not apply to the armoured vehicle.

AOE attacks must also be Blocked individually by targets within the AOE regardless of their orientation.

For instance, two Anvils receive AOE damage, and the origin point draws a line through one Anvil to get to the second one. Both Block, and the one closer to the origin of the AOE does not impede Line of Sight or reduce the damage as it travels to the one further away.

Alternatively, if one of the two Anvils was feeling particularly brave (and was adjacent to its friend), it could Block for its ally instead of for itself, taking the brunt of the AOE attack and removing instances of damage from its ally and applying those instances to one of its Components. Good time to have a Shield!

AOE effects generated via Payload typically come from Artillery weapons. These weapons fire indirectly and Drift when they miss their target. Direct fire attacks made with AOE Payloads will *also* Drift if they miss, as their AOE can greatly affect other elements of the battlefield, such as Terrain, Structures, and other units near their intended target.

Keep in mind that any damage falloff from an AOE attack is based on the number of hexes travelled from the origin point. If you target the ground underneath a highly evasive unit with a Blast Payload, you not only ignore their ability to Dodge, but you also deal the Blast's full damage to that unit (presuming you successfully strike their hex).

AOE Functions and Payloads may interact with other Payloads which have effects that depend on a Hit (such as Exothermic). When considering these combinations, treat only the initial Hit of an AOE attack as carrying the benefits of other Payloads. An Exothermic Blast attack will only deal Heat according to the initial Hit against a unit, and will not include the extra secondary Hits generated as part of the Blast against that unit.

Some pilot Skills may influence AOE attacks and how they interact with other units (or your own). Recall that specific rules overrule general ones in such cases.

EQUIPMENT

An Anvil without supporting equipment is little more than a very expensive gun truck, or so some pilots believe. Supporting equipment comes in various forms and flavours, from Radars to Active Defence Systems to deployable Decoy Balloons. Due to the myriad nature of equipment, precious few stats are shared from one type to another, but generally, most equipment will have one or more of the following stats:

Like weapons, different pieces of equipment can have different types. This generic classification is important to consider, as Anvils can only carry two of any single type of equipment.

Equipment typically isn't strictly passive in nature. EN must be expended in the form of EN Cost, EN Drain, or EN Offset to activate equipment or turn it on. Equipment with EN Drain typically will never have EN Offset, but EN Costs to modify the functionality of equipment with Drain or Offset are common. Passive equipment like Shields and Fuel Tanks simply perform their function without any input.

Equipment with EN Drain or EN Offset may start a Sortie activated, and may only be activated or deactivated during a unit's Upkeep phase. See **Energy: Upkeep**.

Some equipment may generate Heat while turned on or when activated. Unless otherwise specified, equipment with a Heat value generates that much Heat at the start of the wielder's Turn while active.The Size of the equipment dictates how many Hardpoints it takes up. Equipment must be allocated to a single Component- that is to say, their Size may not be split up between two separate Components. Specific rules text dictates what equipment is capable of and how it functions. Rules rarely change within a Type (though numerical parameters will usually be different). One Tracking Radar will work the same way as another Tracking Radar, though their stats may differ. Make sure to read the equipment's rules before attaching it to your Anvil.

Some equipment will have specific stats pertaining to its Type. Shields, for instance, have no EN Cost, Drain, Offset, or Heat, and instead have AP, KE Resistance, CE Resistance, and TE Resistance. Check your equipment to ensure you understand how it functions when mounted to your Anvil.

EQUIPMENT	
Type	The generic identifier of the equipment
Load	The weight of the equipment
EN Cost	The amount of EN spent to activate this equipment
EN Drain	The Generator's EN Output is reduced by this amount
EN Offset	The Generator's EN Capacity is reduced by this amount
Heat	The amount of Heat generated upon activation
Size	The number of Hardpoints this equipment consumes
Specific Rules	Rules text specific to this piece of equipment

RADARS

Radars are the bread and butter of the modern combat vehicle. Without them, many units would be significantly less capable, and the Anvil is no exception. Radars all share a Gear Type with three major subtypes available: Tracking, Spotting, and EWACS.

All Radars have a Search Arc. The Search Arc defines the angle at which the Radar can see units and, therefore, apply its effects to them. Radars automatically apply their effects to all targets within their Search Arcs, out to their Range, provided they have Line of Sight to those targets.

If a Radar has a longer Range than your FCS, you may opt to use your Radar's Range instead of your FCS' when conducting ranged attacks. Keep in mind that this extended Range only works in the Radar's Search Arcs, and if you attack something outside of your FCS' Maximum Range, your FCS' Targeting Type will not combine with your Radar.

Targeting Types from FCSs and Radars do not stack if they are the same. The greater of the two benefits is used, if there is any difference in capability. Otherwise, different types of FCSs and Radars may combine their strength (such as a Laser FCS and Tracking Radar to really lock down an evasive foe).

Radars, when Jammed, reduce their Maximum Range to their Reliable Range, much like a FCS. However, unlike the FCS, Radars are able to improve their Reliable Range to their Burnthrough Range by spending Heat. Radars may spend this Heat to gain their Burnthrough Range even if they are not Jammed. Burnthrough Range remains in effect until the start of the Radar user's next Turn, although the Radar's Range will return to its Maximum Range value as soon as it leaves the area of hostile Jamming. This means that if a Radar which has paid its Burnthrough cost becomes Jammed again later on in the Round, it will not have to pay that cost again.

Tracking Radars automatically apply the Locked Condition to all hostile targets within Range and Arc, making them especially valuable for dealing with evasive packs of units.

Spotting Radars provide Cover ignorance within their Rang and Arc, making them ideal for fighting in congested areas like forests.

EWACS Radars are perhaps the most unique. Unlike other Radars, EWACS Radars do not extend a unit's FCS Maximum Range out to their Range unless the target in question is Airborne. EWACS Radars also provide Air Defence Intercept within their Maximum Range, giving units the ability to shoot down long-range missiles and other heavyweight attacks with their own weapons.

Choosing the correct Radar is important when constructing an Anvil. Your build may not necessarily need one, but the specific effects granted by Radars can be very powerful when combined with weapons that can take advantage of them.

LOCAL CONTROL ARRAYS and CHIPSETS

Of all Gear, the Local Control Array (LCA) is by far the most unique. Commanders use Local Control Arrays to organise and command their allies in the immediate vicinity as well as supporting elements elsewhere in the Area of Operations. Commanders achieve this task by relying on Chipsets, which allow them to install different programmes into their Local Control Arrays. Chipsets can offer a Commander immense flexibility by allowing them to summon allied forces and strikes, buff friendly Anvils, debuff hostile units, or influence the electronic battlespace.

Chipset effects are tethered either the LCA's Reliable Range or Maximum Range. Check the Chipset in particular to determine its effect Range.

Loaded Chipsets are activated using **Orders**, spending EN, and taking Heat. LCAs generate their maximum number of Orders at the start of the user's Turn and can hold up to their Order Limit in Orders. Any number of Orders can be spent in a Round, but users may not spend more Orders than their LCA's Order Limit. Unless otherwise stated, Orders may only be spent during the LCA user's Turn. Some exceptions exist, so check the Chipset in question.

LCAs have a Chipset Capacity which determines how many Chipsets the LCA can carry at once. LCAs may carry any combination of Chipsets (or multiple copies of the same type), and once activated, the Chipset burns out and becomes unusable thereafter. Some Chipsets require multiple Orders to be used, so be sure to check how expensive your loaded Chipsets are!

Each LCA comes stock with six basic Command Chipsets that do not count against its Chipset slot limit. Additionally, these Chipsets are not expended when activated.

- Adjust Attitude (Tier 1)
  - Choose an ally within Reliable Range. They may spend their Manoeuvre Cost to make one Manoeuvre.

- Check System (1 Order)
  - Choose an ally within Reliable Range. They may spend their Refresh Cost to purge one Error.

- Covering Fire (2 Orders)
  - Choose an ally within Reliable Range. They may activate one weapon.

- Double Time (2 Orders)
  - Choose an ally within Reliable Range. They may move up to their Cruising Speed.

- Stay Cool (3 Orders)
  - Choose an ally within Reliable Range. They immediately receive EN equal to their EN Output OR they immediately cool Heat equal to their current total Cooling.

- Fuse Sensors (3 Orders)
  - Choose an ally within Reliable Range or yourself. That ally adds their FCS Targeting Type to your FCS and your allies' FCSes. This effect lasts until the start of your next Turn.

Many Local Control Arrays have special Chipsets available only to that specific model. These Chipsets are loaded in like any other Chipset and burn out once used.

Multiple copies of the same type of Chipset may be loaded into the LCA. Each copy is expended individually. Note that targets can only receive the benefits of a single type of Command Action once per Round. That is to say, even if a Commander has two copies of Chipsets which inflict ERROR: FCS, they cannot use both on the same target.

In all cases, it is best for the Commander to take control of the situation and dole out their Orders according to what they believe is best for the team. They are the Commander, and therefore they must act on behalf of their teammates instead of getting bogged down in putting everything to a vote. Getting input from teammates is useful, but ultimately the Commander must act swiftly and decisively.

CHIPSET TYPES

Chipsets are divided up into five types: **Command**, **Support, Control**, **Interference**, and **Special**. Command Chipsets are always available to all LCAs (but not Radios) and are not expended when activated (see above). All other Chipsets must be loaded into the LCA or Radio. Radios may only carry Support Chipsets.

Support Chipsets are those which allow a unit to summon assistance from beyond the Battlemap. This may take the form of cavalry vehicles arriving to provide immediate tactical support or a barrage of artillery from distant allies. Chipsets of this nature may be loaded into Radios, which allows non-Commander units to call for aid from advantageous positions. Support Chipsets which have been activated will remain active until deactivated by the user at the start of their Turn, at which time the supporting element will cease activity and withdraw (if it took the field).

Summoned units are always under the control of the person who summoned them, unless they wish to divest that responsibility, or otherwise specifically stated. Additionally, unlike other Chipsets, Support Chipsets have the unique ability to bring additional units (and therefore additional action economy) to the field. Whenever a Support Chipset's use results in units arriving to partake directly in combat on the Battlemap, one Order must be spent each Turn to direct those units to act. If no Order is spent, the summoned units take a defensive posture and will not move or attack (though they will protect themselves and flee harmful areas of effect). Units which do not take the field act autonomously and do not require Orders to be spent.

Control Chipsets are those which allow a unit to modify the attitude of another unit on the Battlemap. This may take the form of providing mobility to allies or taunting enemies to hinder their combat effectiveness.

Interference Chipsets are those which allow a unit to directly electronically attack a target unit on the Battlemap. This usually generates an **Error** on the target as their electronic systems are temporarily overwhelmed. See **Conditions and Errors: Errors** for more information on Errors.

Special Chipsets are those unique to a specific kind of Local Control Array. Each LCA is different in application and capabilities, and their Special Chipsets will be listed within their descriptions. These Chipsets do not come free, and must be loaded onto the LCA like any other, but can provide some uniquely powerful options for special strategies.

JAMMERS

While Radars provide intel and electronic tracking capabilities, Jammers provide a more direct method of interacting with the electronic battlespace. Jammers are an excellent way to shut down enemy Radar and fire control or counter other Jammers on the field trying to do the same to you.

When activated, a Jammer user sets the Jammer in one of four Modes:

- Directional ECM (D/ECM)
- Directional ECCM (D/ECCM)
- Area ECM (A/ECM)
- Area ECCM (A/ECCM)

Directional ECM Jams all hostile targets within one Arc and the Jammer's Maximum Range. The Arc chosen must be an Arc the Jammer can see. For instance, if the Jammer is mounted to the Core, only the Nose Arc is visible. If the Jammer is mounted to the Left Arm, the Nose, Forward Left, or Rear Left Arc may be chosen.

Directional ECCM works the same way as Directional ECM Mode, but instead of Jamming targets, those targets are instead Suppressed.

Area ECM Jams all hostile targets within all Arcs and the Jammer's Reliable Range. This effect is independent of mounting location. Additionally, A/ECM Mode makes it more difficult for hostile indirect attacks to accurately fire at you or other targets within A/ECM range.

Area ECCM does not actually inflict any Conditions. Instead, you and any allies within Reliable Range become immune to the Jammed Condition.

Targets which leave this Gear's effect Range, Search Arc(s), or break Line of Sight from (Directional Modes) lose any effects this Gear generates. This means you do not need Line of Sight to your ally to get the benefit of their Jammer if it is set in A/ECCM Mode. However, if you attempt to Jam an enemy unit with D/ECM Mode, that enemy unit must remain within your Line of Sight for the Jammed Condition to remain. Remember, Anvils can change their Facing even when it isn't their Turn, so you can modify your Jammer's pointing direction by spending some Charge.

SHIELDS

The best defence is to never be spotted in the first place. If you do get spotted, don't be acquired. If you do get acquired, don't get hit. If you do get hit, don't get penetrated. That's where the humble Shield proves its worth, a solid slab of armour between you and the threat attempting to kill you.

Shields are passive Gear which mount to a Standard Arm. Shields will automatically take damage instead of the Component they're mounted to. As a result, when you Block, you may direct the incoming damage to the Arm which mounts the Shield, and the Shield will absorb that damage instead. Shields cannot, however, take damage instead of the Arm if the attack originates from the Aft Arc, even if you Block the attack. This means that an AOE attack going off directly behind you will damage your Arm instead of the Shield, even if the Shield has AP left.

Shields have an AP total and Resistances much like a Component does. When a Shield's AP is reduced to 0, it is Destroyed, and in the case of Anvils, automatically jettisoned.

CONDITIONS and ERRORS

Conditions are effects which impact the mechanical functionality of an entire unit and must be cleared using Manoeuvre Cost or some other resource specific to that Condition. Conditions may be cleared at any point during a unit's Turn. Errors, on the other hand, are electronic problems which are always cleared by spending Refresh Cost during Emergency Upkeep. Local Control Arrays and certain pilot Skills may allow players to clear Conditions and Errors while it is not their Turn, and such support can be invaluable in the heat of combat.

CONDITIONS

Conditions affect all units unless a Condition has a specific modifier, such as Low only affecting Striding units. Spending Manoeuvre Cost allows a unit to remove one Condition currently plaguing them, provided that Condition can be removed via Manoeuvre Cost. Conditions may be removed at any point during a unit's Turn.

LOW
Only affects Striding Mobility Bases
A unit which is Low counts as being half of its normal height in Levels and must pay an additional 2 Move Speed to enter hexes. Units which are Low increase their DV by 1 against ranged attacks unless those ranged attacks are made from an adjacent hex.
A unit which is Low may only spend its Manoeuvre Cost to punch, change Facing, and activate Skills. Flanking Speed may not be spent while Low.
A unit must pay 2 Move Speed to clear the Low Condition.
OBSCURED
A unit which is Obscured reduces its Dodge Cost by 1. Additionally, STENO data may not be obtained from Obscured units.
This Condition is automatically removed if the Obscured unit moves outside of the range of the Obscuring effect.
SLOW
A unit which is Slow reduces its Cruising Speed and Flanking Speed by half, can only change its Facing by 1 side whenever it changes Facing, and cannot benefit from bonus dice when performing the Kick/Ram, Sideswipe, or Slam actions.
A unit must pay its Manoeuvre Cost to clear this Condition.

STUCK

A unit which is Stuck cannot spend Cruising or Flanking Speed, cannot generate Flanking Speed, cannot change its Facing, and cannot perform the Kick/Ram, Sideswipe, or Slam actions.

A unit must pay its Manoeuvre Cost to clear this Condition.

Stuck replaces Slow if both Conditions are obtained.

STAGGERED

A unit which is Staggered treats the next instance of KE, CE, or TE damage it receives as if it had the Penetration Payload.

A unit which is Staggered reduces its BID Bonuses by 3 each, to a minimum of 0.

A unit must pay its Manoeuvre Cost to clear this Condition. This Condition is automatically removed after receiving KE, CE, or TE damage.

PAINTED

Caused by Laser FCSes and Target Designators

Laser-Guided Payloads used to attack Painted targets reduce their success criteria by 1, to a minimum of 2.

Ranged attacks against Painted units gain +1 Accuracy.

A unit must pay its Manoeuvre Cost to clear this Condition. This Condition is automatically removed if the Painted unit breaks Line of Sight with the unit which Painted it or moves outside of the range of the Painting effect.

LOCKED

Caused by Tracking FCSes and Tracking Radars

Semi-Guided Payloads used to attack Locked targets reduce their success criteria by 1, to a minimum of 2.

Locked units may not benefit from Flanking bonuses to their DV. Other bonuses to a Locked unit's Target Number (such as from Occlusion) are unaffected.

A unit must pay its Manoeuvre Cost to clear this Condition. This Condition is automatically removed if the Locked unit breaks Line of Sight with the unit which Locked it or moves outside of the range of the Locked effect.

JAMMED

A unit which is Jammed reduces the Range/Optimal Range of all Radars, Local Control Arrays, and Fire Control Systems mounted to it to their Reliable Range values.

While Jammed, CIWS Gear consumes 2 Uses upon activation.

While Jammed, ADS Gear halves its Intercept Bonus.

While Jammed, Command Chipsets may not be used.

This Condition is automatically removed if the Jammed unit moves outside of the range of the Jamming effect.

SUPPRESSED

A unit which is Suppressed treats all sources of Jamming it produces as having no effect.

This Condition is automatically removed if the Suppressed unit moves outside of the range of the Suppressing effect.

HIDDEN

Can only affect units which occupy a hex with Cover

Units must choose to start the Sortie Hidden

Hidden units are undetectable and remain Hidden until they choose to reveal themselves or their Cover is destroyed.

Hidden units may not be targeted with attacks or effects until revealed, but may still interact with AOE attacks or effects which affect an area.

The Hidden Condition is cleared when the unit makes a Surprise Attack, spends Move Speed, uses BIDs, or if the Cover it is occupying is destroyed.

RUNNING ON FUMES

Automatically obtained when a unit is at 0 Fuel

Units which are Running Fumes reduce their Cruising Speed by half and may not Flank.

Units which are Running Fumes reduce their Arm Agility to -2 and treat their Arm Strength as 0 when calculating melee attack damage (if applicable to the unit).

Units which are Running on Fumes double all BID EN Costs.

This Condition is automatically removed if the unit obtains at least 1 point of Fuel and cannot be obtained as long as a unit has at least 1 point of Fuel.

POWER DOWN and POWER UP

Some units may find the heat of battle to be too much, and may opt to hard-reset their systems by shutting down. This action, known as Power Down, may be voluntarily taken during Upkeep, and immediately inflicts the Shutdown Condition.

SHUTDOWN
Units which are Shutdown reduce their DV to 2 and inflict Error: OFF to all Components and Gear. This automatically deactivates all Gear.
Units which are Shutdown cannot spend Move Speed, Charge, EN, Orders, or use any Skills.
Units which are Shutdown cease to Overheat, set their Heat to 0, and set their EN to equal their EN Capacity.
This Condition can only be cleared by taking the Power Up action, which may be voluntarily taken during Upkeep.

The Power Up action may only be taken by a unit which is Shutdown. Power Up costs no EN and immediately removes the Shutdown Condition and all Errors. The Power Up action must be taken at the beginning of Upkeep, and cannot be taken during the same Upkeep as Power Down.

ERRORS

Errors are separated into two types: Generic Errors and Special Errors. Generic Errors affect all units, while Special Errors only affect Anvils and SP units. As a result, Anvils and SPs can be plagued by many more electronic problems than conventional units like tanks and helicopters- a necessary consequence of high performance. Units purge Errors by spending their Refresh Cost.

Regardless of Error type, only a single Error can be purged when the Refresh Cost is spent. Errors of the same type do not stack, however, there is no limit to the number of Errors a unit may suffer from at any given time. Units suffering from an Error cannot obtain that same Error again, except for Error: Actuator (which can affect different Arms) and Error: Offline (which can affect different Components and Gear).

A unit may only purge Errors during their Emergency Upkeep, after they receive any Emergency Upkeep bonuses. All Errors have a shorthand, which takes the form of "ERR: XYZ." This is the preferred method of referring to Errors.

GENERIC ERRORS	
ERROR: OFFLINE	**ERR: OFF**
A Component or piece of Gear ceases to function and deactivates. While afflicted with this Error, the Component or Gear reduces its EN Drain and EN Offset to 0, and it does not provide any benefits, though it is not considered Disabled or Destroyed.	
Gear mounted to an Offline Component may not be used and provides no benefits until the Error is cleared.	
ERROR: MAIN SYSTEM	**ERR: SYS**
Whenever a unit with this Error spends EN or Charge, it must spend 1 additional EN or Charge.	
Units with this Error cannot gain EN except during Upkeep.	
ERROR: DRIVETRAIN	**ERR: DRV**
Whenever a unit with this Error spends its Manoeuvre Cost, it takes 3 Special damage to its Mobility Base or equivalent.	
ERROR: DEFENCE	**ERR: DEF**
Units with this Error increase their BID EN Costs by 1 and decrease their BID Bonuses by 1 each, to a minimum of 0.	
ERROR: ATTACK	**ERR: ATK**
Units with this Error increase their weapon EN Costs by 1 and decrease their weapon Accuracy by 1 each.	

GENERIC ERRORS (CONTINUED)	
ERROR: SENSORS	**ERR: SEN**
Ranged attacks and Gear effects may not be performed or maintained outside of the Nose Arc.	
ERROR: COMMUNICATIONS	**ERR: COM**
Units with this Error cannot benefit from allied Local Control Arrays, cannot receive the benefits of Chipsets, and cannot spend Orders of their own.	
SPECIAL ERRORS	
ERROR: ROTATION	**ERR: ROT**
Units with this Error reduce their Block Bonus by 2, to a minimum of 0.	
ERROR: ACQUISITION	**ERR: ACQ**
Units with this Error reduce their Intercept Bonus by 2, to a minimum of 0.	
ERROR: MOBILITY	**ERR: MOB**
Units with this Error reduce their Dodge Bonus by 2, to a minimum of 0.	
ERROR: FIRE CONTROL	**ERR: FCS**
Units with this Error reduce their FCS' Maximum Range and Reliable Range to 0.	
Units with this Error treat their Targeting Type as None (no benefits).	
ERROR: ACTUATOR	**ERR: ACT**
Units with this Error reduce the affected Arm's Agility to -2 and treat that Arm's Strength as 0 when calculating melee damage.	
ERROR: COOLING	**ERR: CLG**
Whenever a unit with this Error generates Heat, it generates 1 additional Heat.	
Units with this Error cannot dissipate Heat except during Upkeep.	

CRITICAL DAMAGE and DESTRUCTION

All Components track damage separately and degrade at different rates. As damage accrues on a Component, its performance begins to diminish, and it may eventually become Disabled. Disabled Components will cease to function properly, fall apart, or occasionally explode. Components which become Disabled may also become Destroyed, depending on the Damage Step result.

There are three Damage Steps:

- Damaged
  - The Component has received modest damage. One or more of its major functions may be temporarily affected.
- Degraded
  - The Component has received severe damage. One or more of its major functions may be permanently affected.
- Disabled
  - The Component has received critical damage and ceases to function properly. Some Components may be able to provide basic functions, but the Component will need to be replaced.

Generally speaking, Cores, Generators, and Electronics follow the same Damage Step tables. Standard Arms and Weapon Arms follow different tables. Mobility Bases all have unique tables depending on their Chassis.

It is assumed that all Components on a unit begin combat with no Damage Steps and full Armour Points (AP). In some situations, repairs may not have been performed, or back-to-back Sorties may be played, and, in these cases, damage and Damage Steps accrued will carry over. Temporary effects from a Damage Step (such as an Error or some type of effect which only lasts until the end of a unit's next Turn) do not carry over from one Sortie to another, and are automatically cleared.

To advance a Damage Step, a Component must first be reduced to 0 AP. Once a Component has reached 0 AP, the controlling player rolls a die and compares the result to that Component's Damage Step table, starting at Damaged, then Degraded, then finally Disabled. After the Damage Step has been resolved, the Component's AP refills to maximum. Any additional damage delivered to that Component during the attack which triggered the Damage Step is reduced to 0 and does not overflow into the new AP. Units which suffer multiple Damage Steps at once proceed in order of their Hit Locations according to the die — that is to say, from Component 1 to 6.

When a Component is Disabled, it stops providing benefits and its stats with positive values are treated as if they were 0. This includes EN Drain. An exception to this rule is Load, which is not treated as 0 unless the Component is Destroyed as a result of a Damage Step.

Disabled Components cannot be further damaged and Hits which strike Disabled or Destroyed Components must be rerolled. Subcomponents which are part of a Component may no longer function or may be Destroyed as well, depending on the Damage Step result.

Permanent effects created as a result of critical damage last until that Component is repaired to a better condition, or exchanged for a different Component. Permanent effects are otherwise tracked per Component. That is to say, an Arm which has been Disabled will remain Disabled even if it's attached to another Anvil, with any permanent effects still in play.

CRITICAL DAMAGE for NON-ANVILS

Anvils are remarkably robust machines, able to withstand withering punishment that would otherwise cripple a conventional combat unit. For those units which aren't lucky enough to be an Anvil, their Damage Steps tend to function differently.

For most non-Anvil units, such as tanks, helicopters, GPs, and so on, individual Components track AP like Anvils do, and each Component has its own Damage Steps. However, as each Damage Step is reached, the overall condition of the unit worsens.

Depending on the unit in question, it may only be able to absorb a number of Damage Steps equal to its Hit Locations before it is removed from play. Sturdier units, such as tanks and GPs, may be able to sustain more Damage Steps. The total number of Damage Steps a unit may accrue before removal is listed on its readout.

For instance, a T-72 tank has two Components: the Hull and the Turret. It takes a nasty hit to the Turret, and rolls a Damage Step on its Damaged table. 1 of its 3 Damage Steps has been reached, and if it takes two more (either to the same Component or to a different one), it will be Disabled, or possibly Destroyed, depending on the Damage Step results.

Some powerful or high-performance units may retain individual Damage Steps exclusive from one another. These units can prove to be just as durable as an Anvil, and should be regarded with caution. Non-Anvil units will always have their Damage Steps and Damage Step progression listed on their readouts.

DESTRUCTION

When one or more of a unit's necessary Components runs out of Damage Steps, that unit may be Disabled or Destroyed. A necessary Component is any Component which houses the pilot or crew, any Component which provides EN to the unit, or any Component which provides motive power to the unit. In some cases this Component may be all three, as in the case of helicopters and armoured personnel carriers.

Units which are Disabled are simply unable to continue playing- they have sustained too much damage and, while they could technically stay in the fight, doing so would merely prolong the inevitable. Units which are Destroyed, on the other hand, have been mangled beyond recognition, torn to shreds by weapons fire or so heavily damaged that nothing is worth salvaging. In both cases, the unit is **removed from play**. Units which are removed from play are literally removed from the Battlemap and no longer influence the Sortie. Persistent effects generated by that unit which are independent of its status are an exception. For instance, the mines laid by a unit removed from play do not vanish.

Non-Anvil units are automatically removed from play when they have reached or exceeded their number of allotted Damage Steps. Anvils may stick around longer, and are only removed from play when they have received too much damage and their player agrees that they are no longer combat capable (read: Disabled). Units are automatically removed from play if their Core Component (or equivalent) is Disabled, regardless of the condition of the rest of the unit.

Units removed from play cannot take additional damage. Damage, permanent effects, and the overall condition of units removed from play remain persistent. For instance, if a M60 tank suffered a bad hit and its crew bailed out, but the tank was not Destroyed, it will still bear the damage it sustained that prompted the crew to leave. This damage may be repaired. For Anvils, they may wish to replace Components with fresh ones instead of repairing them, at the discretion of the player. In Tactical and Strategic Operations, the conditions of removed units may be of particular importance. That's salvage, after all!

DAMAGE STEPS (ANVIL)

CORE

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Gyroscopes overloaded. Move one hex directly away from the last source of damage and flip Facing 180 degrees. If the damage had no direction (such as self-inflicted damage), move backwards according to your Facing.
	4	The rotator cuff jams. Suffer **ERR: ROT**.
	3	Choose a Gear mounted to your Core. It suffers **ERR: OFF**. If no valid targets exist, this result becomes a result of 2.
	2	Damage begins to overwhelm your armour. Become **Staggered**
	1	Pilot shaken. -1 **Mettle** until the end of your next Turn.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Your silhouette is compromised. Permanently lower your **DV** by 1. Additionally, suffer -1 **Mettle** until the end of your next Turn.
	4	The rotator cuff shatters. Permanently lose the ability to **Block**. Additionally, suffer -1 **Mettle** until the end of your next Turn.
	3	Choose a Gear mounted to your Core. It is immediately **Destroyed**. If no valid targets exist, this result becomes a result of 2. Additionally, suffer -1 **Mettle** until the end of your next Turn.
	2	Hostile fire shreds armour and shatters plating. Permanently reduce all **Resistances** on your Core to 0. Additionally, suffer -1 **Mettle** until the end of your next Turn.
	1	Pilot wounded. Suffer -1 **Mettle** for the rest of the Sortie.
DISABLED	6	Advance your Electronics Damage Step by 1 (its AP does not change). Suffer -1 **Mettle** for the next Sortie, if applicable. Your Anvil immediately **Powers Down** and may not **Power Up**.
	5	Advance your Generator Damage Step by 1 (its AP does not change). Suffer -1 **Mettle** for the next Sortie, if applicable. Your Anvil immediately **Powers Down** and may not **Power Up**.
	4	Advance your Right Arm Damage Step by 1 (its AP does not change). Suffer -1 **Mettle** for the next Sortie, if applicable. Your Anvil immediately **Powers Down** and may not **Power Up**.
	3	Advance your Left Arm Damage Step by 1 (its AP does not change). Suffer -1 **Mettle** for the next Sortie, if applicable. Your Anvil immediately **Powers Down** and may not **Power Up**.

	2	Advance your Mobility Base Damage Step by 1 (its AP does not change). Suffer -1 **Mettle** for the next Sortie, if applicable. Your Anvil immediately **Powers Down** and may not **Power Up**.
	1	You die. You may choose to expire immediately or at the end of the Sortie. Your Anvil immediately **Powers Down** and may not **Power Up**. The Core is **Destroyed**.

GENERATOR

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Power spikes momentarily. Generate 3 less EN during your next **Upkeep** and **Emergency Upkeep**.
	4	Thermal regulation is interrupted. Suffer **ERR: CLG**. Gain 2 **Heat**.
	3	Breakers snap and fuses blow. Suffer **ERR: SYS**. Lose 2 **Charge**.
	2	A minor leak springs in your Fuel tank. Lose 1 **Fuel**.
	1	Power systems are temporarily impaired. Reduce your base **EN Capacity** by half until the end of your next Turn.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Control surfaces seize. You no longer benefit from **Emergency Upkeep** and you may not voluntarily **Power Down**.
	4	Thermal damage begins to spread to sensitive areas. Permanently reduce all **BID** Bonuses by 1, and permanently reduce your **Heat Tolerance** by 5.
	3	Electricity surges through your frame. Permanently suffer the **Jammed** Condition. Additionally, lose all **Charge**.
	2	A major rupture appears in your Fuel tank. Lose all **Fuel.**
	1	The Generator catches fire. Reduce your base **EN Capacity** by half for the rest of the Sortie. At the start of your Turn, generate 1d6 **Heat** and take that much in Special damage to the Generator. If this causes you to **Overheat**, resolve this effect first.
DISABLED	6	Conduits rupture and the engine chokes. At the start of each of your Turns, reduce your EN Output by 5. When you reach a negative **EN Output** value, you **Power Down** and may not **Power Up**.
	5	Runaway electrical discharge courses through your frame. **Jettison** all Gear, even Gear mounted to your Core. All Components except the Generator take Special damage equal to the number of Gear **Jettisoned** this way. Additionally, at the start of each of your Turns, reduce your EN Output by 5. When you reach a negative **EN Output** value, you **Power Down** and may not **Power Up**.
	4	Right Arm cooling systems burst. Advance your Right Arm's Damage Step by 1 (the AP does not change). **Power Down** automatically during your next **Upkeep** phase. You may not **Power Up**.
	3	Left Arm cooling systems burst. Advance your Left Arm's Damage Step by 1 (the AP does not change). **Power Down** automatically during your next **Upkeep** phase. You may not **Power Up**.
	2	The Generator incinerates itself and fuses into a useless hunk of slag. Become Staggered.

	Suffer -1 **Mettle** during the next Sortie. Immediately **Power Down**. You may not **Power Up**. The Generator is **Destroyed**.
1	The Generator explodes violently. Create a Blast 3 area with your current hex as its origin. This Blast deals TE damage equal to your **EN Capacity** plus **Heat Tolerance**. Your Anvil takes full damage from this Blast. Immediately **Power Down**. You may not **Power Up**. The Generator is **Destroyed**.

ELECTRONICS

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Relays to the Mobility Base reset under duress. Suffer **ERR: DRV**.
	4	Threat assessment is temporarily impaired. Suffer **ERR: ACQ**.
	3	A handful of breakers blow in the cockpit. Suffer **ERR: COM**.
	2	Your camera feed winks out. Suffer **ERR: FCS**.
	1	Passive subsystems are compromised. Suffer **ERR: TGT**. Additionally, permanently increase your **Refresh Cost** by 1.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Primary tracking systems are knocked out. Results of 6 on any cast die permanently count as 1 success.
	4	Threat assessment is permanently impaired. Permanently lose the ability to **Intercept**.
	3	Transmitters and receivers are shredded. You may no longer communicate with allied units unless you are within Line of Sight. Permanently lose the ability to benefit from or use **Chipsets**.
	2	Your FCS suffers a major outage. Permanently set your **Targeting Type** to **Optical** and reduce your FCS' **Maximum Range** and **Reliable Range** by half.
	1	Your IFF system fails and STENO begins feeding you incorrect information. Your Anvil no longer recognises allied units and treats all units as hostile. You no longer count as an ally for the purposes of Gear, Skills, or abilities used by your teammates.
DISABLED	6	Emergency protocols kick in. Your FCS still functions but your Electronics are **Disabled**.
	5	Heat flash-fuses your FCS' sensitive circuitry. Your FCS is **Destroyed**.
	4	Redundancies in your targeting subroutines are compromised. Permanently increase the success criteria of all dice pools you roll by 2, to a maximum of 6.
	3	Inflict the **Jammed** Condition on all allied units and yourself currently on the Battlemap. This effect lasts for the rest of the Sortie.
	2	A particularly terrible blow to the Electronics exposes the internals of the Core. Attacks which Hit your Core deal 5 additional damage of their respective type. The Electronics and FCS are **Destroyed**.
	1	Self-diagnosis protocols run haywire. Roll on the Anvil Hit Location table. The rolled Component permanently deactivates, as if it was Disabled. If you roll Electronics, lucky you. The Electronics and FCS are **Destroyed**.

ARMS (STANDARD)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Damage inhibits accuracy. **Ranged** and **Melee** attacks originating from the Arm suffer -1 Accuracy until the end of your next Turn.
	4	The Arm stiffens and groans under stress. It suffers **ERR: ACT**.
	3	Choose a Gear mounted to the Arm. It suffers **ERR: OFF**. If no valid targets exist, this result becomes a result of 2.
	2	The Lorentz disc seizes. Reduce the Arm's firing Arcs to the Nose until the end of your next Turn.
	1	Choose a Gear mounted to the Arm. It is immediately **Destroyed**. If no valid targets exist, reroll this result. Suffer the **Staggered** Condition even if you reroll.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Damage impacts thermal and electrical systems. Permanently increase the **EN Cost**, **Heat**, and **Charge** costs associated with actions originating from the Arm by 1.
	4	The Arm begins to fall apart. Permanently reduce **Agility** to -2 and **Strength** to 0.
	3	Choose a Gear mounted to the Arm. It is immediately **Destroyed**. If no valid targets exist, this result becomes a result of 2.
	2	The Lorenz disc fuses. Permanently reduce the Arm's firing Arcs to the Nose, and become unable to make **Melee** attacks with the Arm.
	1	A direct hit to the modular linkage blows the Arm free from the Anvil. The Arm is treated as **Destroyed** but falls into the currently-occupied hex. It and its Gear may be recovered.
DISABLED	6	The Arm goes limp. It and all Gear mounted to it permanently suffer **ERR: OFF**.
	5	A direct hit to the modular linkage blows the Arm free from the Anvil. The Arm is treated as **Destroyed** but falls into the currently-occupied hex. It and its Gear may be recovered.
	4	A crippling hit to the Arm sends fragments flying. A Blast 1 attack originates from your hex, dealing 10 KE damage. The Arm and all of its Gear are **Destroyed**.
	3	A violent hit to the Arm shakes your whole frame. Become **Staggered**. The Arm and all of its Gear are **Destroyed**.
	2	A particularly terrible blow to the Arm exposes the internals of the Core. Attacks which Hit your Core deal 5 additional damage of their respective type. The Arm and all of its Gear are **Destroyed**.
	1	Damage spreads into the Anvil's body. Advance your Core Damage Step by 1 (its AP

does not change). The Arm and all of its Gear are **Destroyed**.

ARMS (WEAPON)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Damage inhibits accuracy. **Ranged** and **Melee** attacks originating from the Arm suffer -1 Accuracy until the end of your next Turn.
	4	Thermal regulation is interrupted. Generate an additional 3 **Heat** the next time you activate this Arm's integrated weapon.
	3	Power supply lines get pinched. Spend an additional 3 **EN** the next time you activate this Arm's integrated weapon.
	2	The Lorentz disc seizes. Reduce the Arm's firing Arcs to the Nose until the end of your next Turn.
	1	Rods warp and actions crack. Each Payload used by the integrated weapon permanently gains **Temperamental**.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Feeds are damaged. Permanently reduce the integrated weapon's **Range** by half.
	4	Thermal systems are shredded by weapons fire. Permanently increase the integrated weapon's **Heat** value by 3.
	3	Electrical systems are savaged by weapons fire. Permanently increase the integrated weapon's **EN Cost** value by 3.
	2	The Lorenz disc fuses. Permanently reduce the Arm's firing Arcs to the Nose, and become unable to make **Melee** attacks with the Arm.
	1	A direct hit to the modular linkage blows the Arm free from the Anvil. The Arm is treated as **Destroyed** but falls into the currently-occupied hex. It and its Gear may be recovered.
DISABLED	6	The Arm goes limp. It permanently suffers **ERR: OFF**.
	5	A direct hit to the modular linkage blows the Arm free from the Anvil. The Arm is treated as **Destroyed** but falls into the currently-occupied hex. It and its Gear may be recovered.
	4	A crippling hit to the Arm sends fragments flying. A Blast 1 attack originates from your hex, dealing 10 KE damage. The Arm is destroyed.
	3	A violent hit to the Arm shakes your whole frame. Become **Staggered**. The Arm is **Destroyed**.
	2	A particularly terrible blow to the Arm exposes the internals of the Core. Attacks which Hit your Core deal 5 additional damage of their respective type. The Arm is **Destroyed**.

	1	Damage spreads into the Anvil's body. Advance your Core Damage Step by 1 (its AP does not change). The Arm is **Destroyed**.

MOBILITY BASE (BIPED)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	You're forced to take a step back to stay balanced. Move 1 hex directly away from the triggering source of damage. If the damage had no direction (such as self-inflicted damage), move backwards according to your Facing. Your Facing does not change.
	4	Actuators temporarily seize. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Increase your **Manoeuvre Cost** by 1 until the end of your next Turn.
	2	You're knocked off balance. Suffer the **Staggered** Condition.
	1	Shock absorbers fracture. Permanently reduce your Cruising Speed by 2.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Damage overloads your ability to remain upright. Become **Low** and suffer the **Stuck** Condition.
	4	Blockages accumulate in actuator travel paths. Permanently double your **Dodge Cost**.
	3	Energy supply to the legs is forced along redundant conduits. Permanently double your **Manoeuvre Cost**.
	2	The Lorenz discs fuse. You may no longer make **Manoeuvres**.
	1	One leg goes limp. Permanently lose the abilities to **Climb** and change Facing for free once per Round. You become permanently **Low**.
DISABLED	6	Your legs are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed**, cannot make **Manoeuvres,** and cannot **Dodge**.
	5	One leg is torn free from the Anvil. Become permanently **Low** and permanently **Stuck**.
	4	Your legs are shredded. Become permanently **Low** and permanently **Staggered**.
	3	Both legs are swept out from underneath you. Become permanently **Low** and suffer -1 Mettle for the rest of the Sortie.
	2	Both legs are ravaged beyond repair, sending you to the ground in a heap. Become permanently **Low**. Choose a Gear mounted to your Core. It is immediately **Destroyed**, crushed under your own weight. The Mobility Base is **Destroyed**.
	1	Both legs are violently destroyed, hurling you to the ground. Become permanently **Low** and roll on the Anvil Hit Location table. The rolled Component advances a Damage Step (its AP does not change). If you roll Mobility Base, lucky you. The Mobility Base is **Destroyed**.

MOBILITY BASE (REVERSE-JOINT)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	You're forced to take a step back to stay balanced. Move 1 hex directly away from the triggering source of damage. If the damage had no direction (such as self-inflicted damage), move backwards according to your Facing. Your Facing does not change.
	4	Actuators temporarily seize. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Suffer **ERR: DRV**.
	2	Your Lorenz discs strain under fire. You may not change Facing until the end of your next Turn.
	1	Stability suffers under the weight of hostile fire. Permanently double the amount of **Cruising Speed** required to generate bonus Accuracy while **Low**.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	You are forced to squat. Become **Low** and suffer the **Stuck** Condition.
	4	Blockages accumulate in actuator travel paths. Permanently lose the ability to **Dodge**.
	3	Energy supply to the legs is forced along redundant conduits. Permanently double your **Manoeuvre Cost**.
	2	The Lorenz discs fuse. You may no longer make **Manoeuvres**.
	1	Both legs struggle to keep you upright. Permanently lose the **Steady Aim** and **Jump** abilities. You become permanently **Low**.
DISABLED	6	Your legs are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed**, cannot make **Manoeuvres,** and cannot **Dodge**.
	5	One leg is torn free from the Anvil. Become permanently **Low** and permanently **Stuck**.
	4	Your legs are shredded. Become permanently **Low** and permanently **Staggered**.
	3	Both legs are swept out from underneath you. Become permanently **Low** and suffer -1 Mettle for the rest of the Sortie.
	2	Both legs are ravaged beyond repair, sending you to the ground in a heap. Become permanently **Low**. Choose a Gear mounted to your Core. It is immediately **Destroyed**, crushed under your own weight. The Mobility Base is **Destroyed**.
	1	Both legs are violently destroyed, hurling you to the ground. Become **Low** and roll on the Anvil Hit Location table. The rolled Component advances a Damage Step (its AP does not change). If you roll Mobility Base, lucky you. The Mobility Base is **Destroyed**.

MOBILITY BASE (QUADRUPED)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Impact twists you around. Roll 1d6 to determine a new Facing, as if you were rolling to determine Drift.
	4	Actuators temporarily seize. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Suffer **ERR: DRV**.
	2	Your Lorenz discs strain under fire. You may not change Facing until the end of your next Turn.
	1	Shock absorbers fracture. Permanently reduce your **Cruising Speed** by 1.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Your legs go out from under you. Become **Low** and suffer the **Slow** Condition.
	4	Blockages accumulate in actuator travel paths. Permanently lose the ability to **Dodge**.
	3	Energy supply to the legs is forced along redundant conduits. Permanently increase your **Manoeuvre Cost** by 1.
	2	Heat builds up inside your legs as coolant struggles to circulate. Generate 1 **Heat** any time you spend **Cruising Speed** or **Flanking Speed**.
	1	One leg is destroyed. Permanently lose the ability to activate **Secondary Weapons** without terminating movement. You become permanently **Low**.
DISABLED	6	Your legs are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed** and cannot **Dodge**.
	5	Two legs are torn free from the Anvil. Become permanently **Low** and permanently **Stuck**.
	4	Your legs are shredded. Become permanently **Low** and permanently **Staggered**.
	3	All four legs are swept out from underneath you. Become permanently **Low** and suffer -1 Mettle for the rest of the Sortie.
	2	Your legs are beyond repair, and you hit the ground in a heap. Become **Low**. Choose a Gear mounted to your Core. It is immediately **jettisoned**, even if you could not **jettison** that Gear normally. It lands in your hex. The Mobility Base is **Destroyed**.
	1	All four legs are violently destroyed, hurling you to the ground. Become **Low** and roll on the Anvil Hit Location table. The rolled Component advances a Damage Step (its AP does not change). If you roll Mobility Base, lucky you. The Mobility Base is **Destroyed**.

MOBILITY BASE (TRACKED)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	4	Motor systems suffer minor damage. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Suffer **ERR: DRV**.
	2	Impact twists you around. Roll 1d6 to determine a new Facing, as if you were rolling to determine Drift. Additionally, become **Slow**.
	1	One track is heavily damaged. Permanently reduce your **Cruising Speed** by 1. Additionally, you no longer ignore **Rough** terrain.
DEGRADED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	It could have been worse. Roll on the Damaged table instead of this one.
	4	Motor systems suffer major damage. Permanently lose the ability to **Dodge**.
	3	Energy supply to the drive motors is forced along redundant conduits. Permanently increase your **Manoeuvre Cost** by 2.
	2	The secondary driving engine is knocked offline. Generating **Cruising Speed** now requires 2 **EN** to be spent.
	1	One track is destroyed. Become permanently **Slow**.
DISABLED	6	Your tracks are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed** and cannot **Dodge**.
	5	Your tracks are wracked with stress. You may still generate and spend **Cruising Speed**, but you may not make **Manoeuvres** or **Dodge**.
	4	Your Mobility Base grinds to a halt. Advance to this Damage Step but suffer no additional effects.
	3	Your tracks are blown completely apart. Become permanently **Staggered**.
	2	A coolant leak springs in the thermal regulation systems. At the start of your Turn, generate 1d6 **Heat**.
	1	The secondary engine catches fire. At the start of your Turn, generate 1d6 **Heat** and take that much in Special damage to the Core. If this causes you to **Overheat**, resolve this effect first. The Mobility Base is **Destroyed**.

MOBILITY BASE (WHEELED)

DAMAGED	6	Glancing blow. Advance to this Damage Step but suffer no additional effects.
	5	Impact twists you around. Roll 1d6 to determine a new Facing, as if you were rolling to determine Drift.
	4	Motor systems suffer minor damage. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Increase your **Manoeuvre Cost** by 1 until the end of your next Turn.
	2	You're knocked out of alignment. Suffer the **Staggered** Condition.
	1	One axle is heavily damaged. Permanently reduce your **Cruising Speed** by 2.
DEGRADED	6	It could have been worse. Roll on the Damaged table instead of this one.
	5	Steering and control mechanisms buckle. Become permanently **Slow**.
	4	Motor systems suffer major damage. Permanently lose the ability to **Dodge**.
	3	Energy supply to the drive motors is forced along redundant conduits. Permanently increase your **Manoeuvre Cost** by 2.
	2	The secondary driving engine is knocked offline. Generating **Cruising Speed** now requires 2 **EN** to be spent.
	1	Multiple wheels are heavily damaged. You no longer improve your **Cruising Speed** when starting movement on Flatland or Pavement. Additionally, permanently lose the ability to generate and spend **Flanking Speed**.
DISABLED	6	Your wheels are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed** and cannot **Dodge**.
	5	Your wheels are wracked with stress. You may still generate and spend **Cruising Speed**, but you may not make **Manoeuvres** or **Dodge**.
	4	Your Mobility Base grinds to a halt. Advance to this Damage Step but suffer no additional effects.
	3	Your wheels are blown completely apart. Become permanently **Staggered**.
	2	A coolant leak springs in the thermal regulation systems. At the start of your Turn, generate 1d6 **Heat**. The Mobility Base is **Destroyed**.
	1	The secondary engine catches fire. At the start of your Turn, generate 1d6 **Heat** and take that much in Special damage to the Core. If this causes you to **Overheat**, resolve this effect first. The Mobility Base is **Destroyed**.

MOBILITY BASE (HOVER)

DAMAGED	6	Impact twists you around. Roll 1d6 to determine a new Facing, as if you were rolling to determine Drift.
	5	Incoming damage pushes you back. Move 1 hex directly away from the triggering source of damage. If the damage had no direction (such as self-inflicted damage), move backwards according to your Facing. Your Facing does not change.
	4	Motor systems suffer minor damage. Suffer **ERR: MOB**.
	3	Energy flow is temporarily interrupted. Suffer **ERR: DRV**.
	2	You're knocked out of alignment. Suffer the **Staggered** Condition.
	1	The hover skirt is damaged. You must spend 1 additional point of **Move Speed** when traversing **Water** and **Lava** terrain.
DEGRADED	6	Steering and control mechanisms are impaired. Become **Slow**.
	5	Steering and control mechanisms buckle. Become permanently **Slow**.
	4	Motor systems suffer major damage. Permanently lose the ability to **Dodge**.
	3	Energy supply to the drive motors is forced along redundant conduits. Permanently increase your **Manoeuvre Cost** by 2.
	2	The secondary driving engine is knocked offline. Generating **Cruising Speed** now requires 2 **EN** to be spent.
	1	Multiple fans are heavily damaged. You no longer treat **Sand**, **Snow**, **Mud**, **Ice**, **Water**, or **Lava** terrain as **Flatland**. Additionally, permanently lose the ability to generate and spend **Flanking Speed**.
DISABLED	6	Your lift fans are wracked with stress. You may still generate and spend **Cruising Speed**, but you are permanently **Slowed** and cannot **Dodge**.
	5	Your Mobility Base wheezes to a halt. Become permanently **Stuck**.
	4	Your skirt is blown completely apart. Become permanently **Staggered** and **Stuck**.
	3	You go out of control. Travel your **Cruising Speed** in a random direction then randomly determine your Facing (determine as if rolling Drift). If this would move you into an illegal hex, you instead stop. The Mobility Base is **Destroyed**.
	2	A coolant leak springs in the thermal regulation systems. At the start of your Turn, generate 1d6 **Heat**. The Mobility Base is **Destroyed**.
	1	The secondary engine catches fire. At the start of your Turn, generate 1d6 **Heat** and take that much in Special damage to the Core. If this causes you to **Overheat**, resolve this effect first. The Mobility Base is **Destroyed**.

GAME ASSEMBLY

Games of METALLURGENT are designed to be played either symmetrically or asymmetrically. **Symmetric** games (also known as player-versus-player, or PvP) are games in which two or more players face off against each other without the use of a Coordinator. They will typically construct a force of units based on a point value system with a set limit, adding units to their roster until they run out of points. As long as the point totals are relatively close to each other, the game should be fairly well-balanced. In this way, METALLURGENT is played more like a wargame. Symmetric games usually include objectives and victory conditions, but deathmatches are also viable. As long as the players involved agree on how the game should be conducted, anything goes.

Currently, there are no point values assigned to any unit in METALLURGENT, and so symmetric games must be "eyeballed." As the Beta Test moves on, a point value system will be devised and implemented to better assist players who wish to face off in symmetric games.

Conversely, **asymmetric** games feature between two and four players and a Coordinator, who acts as the game master and controls the opposing forces (OpFor). The Coordinator arbitrates the game and any surrounding narrative that may be present, and has the authority to overrule this book or any others if they so wish. Players should respect the rulings of their Coordinators and Coordinators should do their best to know as many rules offhand as possible to prevent slowdowns during game time. Asymmetric games are unconcerned with point values and are usually driven by some kind of narrative element. The players may be beating up on uncoordinated backwater irregulars or they may be staring down a gauntlet of the finest soldiery a nation can muster. Whatever the case, asymmetric games almost always have multiple win and loss conditions, and the state of the players, their Pilots, and their Anvils are persistent from one game to another.

In all cases, it is advised that games avoid having more than 4 players at once (not counting the Coordinator). A party of 5 is possible, but Rounds can drag on, even if everyone knows what they're doing. Do not play METALLURGENT with 6 players. We made that mistake so you don't have to.

Due to Metallurgent's flexibility, you may find that having a second Coordinator makes things run much smoother. This is a completely viable solution to the cognitive load you might experience during a game, and you are encouraged to invite friends to help you Coordinate games. You can hand them a Platoon of tanks, or an Ace Anvil, or some other manner of unit and divest some of your responsibility. This is not required, of course, but merely useful advice based on internal Alpha testing.

GAME TYPES

METALLURGENT may be played in one of the following ways:

PICK-UP GAMES

A simple one-time game (commonly known as a pick-up game or PUG). These games are designed to be low-stakes one-shots which do not use persistent characters or units. Due to the nature of the PUG, uncommon Anvil designs or force compositions may be seen, and the general power level of units present on the field may be higher than normal. Players and Coordinators involved in a PUG should agree on what they would like to play, and if the game is asymmetric, the Coordinator should provide their players with all the usual pre-game Intel (Time of Day, Weather, Temperature, Main Objective, and an overview of the Battlemap and deployment areas).

SINGLE SORTIES

The main difference between a PUG and a Single Sortie is the persistence of character states. Single Sorties are typically asymmetric and include the progression of characters, units, and inventories before and after the Sortie. These types of games are frequently used for mercenary player groups and represent single missions the players have accepted, where narrative connective tissue is driven by the players. There is otherwise not much difference between a Single Sortie and the humble PUG.

TACTICAL OPERATIONS

Tactical Operations are more involved than PUGs or Single Sorties and involve multiple narratively-joined Sorties, Downtime, and strategic elements moving around in the background. Tactical Operations are typically asymmetric and include the progression of characters, units, and inventories during the entire Operation's length. The Coordinator will give players a general background of their group, what they intend to accomplish with their Anvils, and provide an inventory for the players so that they can collect Components and Gear for their own use.

Tactical Operations usually consist of four narratively-linked Sorties. Before the start of each Sortie, a Planning Phase takes place. The Coordinator provides the players with a briefing and Intel. Intel is a list of known elements regarding the upcoming Sortie, such as the Main Objective, Time of Day, Weather, Temperature, and other elements, such as the number of starting Platoons, when reinforcements will arrive, and whether or not the Sortie is able to be retried.

For the Beta Test, a handful of pre-made Tactical Operations have been made available. Operation Coiled Serpent puts

the players in the shoes of a newly-formed American Anvil Chain hunting drug runners in Nicaragua. Operation Stonecutter's Wheel puts the players under the command of a zealous leftenant chasing after stolen intel on the outskirts of Belarus. Operation Winter Temple sees the players guarding a survey team against Soviet dissidents as they make their way through the Russian wilderness. Check them out if you want to get a taste of what a full Strategic Operation is like.

STRATEGIC OPERATIONS

Strategic Operations are the most involved type of METALLURGENT game and are comprised of numerous narratively-linked Sorties. Strategic Operations are typically asymmetric and include the progression of characters, units, and inventories during the entire Operation's length. The length of the Operation is largely dependent on the choices the players make: what objectives they decide to attack, where they decide to move their units, how they plan to move from one part of the Area of Operations to another, and so on. The main difference between Strategic Operations and other types of games is the inclusion of the **Strategic Layer**. The Strategic Layer is a grid of many square kilometres which provides a top-down view of the entire combat area in which the players participate. It is in Strategic Operations where ammunition endurance, fuel capacity, and long-range weapons and effects truly shine.

For the Beta Test, a single pre-made Strategic Operation will be offered (as soon as it's finished internal testing). Operation Mad Dash puts the players in the position of playing as a combined Belgian/Argentinian/Lithuanian force in a war game against the combined might of the USA, Germany, and Belarus. The players are free to assemble an allied force of tanks, planes, self-propelled guns, and more, then command their force to take objectives and manoeuvre on the Strategic Layer. All the while, the players and their Anvils conduct tactical combat to seize and defend objectives. It's the true METALLURGENT experience, so check it out once it's ready.

GAME SETUP

You will need at least two players to play a symmetric game. A Coordinator will also be required if you plan to play an asymmetric game. You will need a Battlemap. 33x30 hexes is a standard METALLURGENT Battlemap, but you may agree on different dimensions. A repository of basic maps can be found in chapter [FIX].

Depending on the game in question, some elements may be required or not applicable. Check the table of Intel below to determine what you need for setting up a game of METALLURGENT. Intel may always be included even if the game type you are playing is not listed in the [USED IN] column; if it isn't listed, it's entirely optional.

INTEL	DESCRIPTION	USED IN
Briefing	A general narrative overview of the Sortie's objectives and the types of units the players will encounter, typically presented by a non-player character.	SINGLE SORTIES TACTICAL OPERATIONS
Area of Operation	The Strategic Layer map, composed of grid squares, usually between 8x8 and 12x12 squares.	STRATEGIC OPERATIONS
Battlemap	The map to be used in tactical combat. All teams and players should know what the map looks like before assembling their forces.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Main Objective	The primary goal for each team. Accomplishing this goal results in a win for that team. Teams may have unique Main Objectives.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Bonus Objective	An optional goal for each team. Accomplishing this goal usually results in an advantage for that team. Teams may have unique Secondary Objectives.	TACTICAL OPERATIONS STRATEGIC OPERATIONS
Hidden Objective	A goal for each team which reveals itself during the Sortie. Teams always know if they have a Hidden Objective, but they may not know what its completion conditions are. Accomplishing this goal usually results in an advantage for the team. Teams may have unique Hidden Objectives.	TACTICAL OPERATIONS STRATEGIC OPERATIONS
Starting Platoons	The number of Platoons each team plans to have on the map at the start of the Sortie.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Starting Units	The types of units (but not necessarily specific names) each team plans to have on the map at the start of the Sortie.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Reserve Platoons	The number of Platoons each team plans to use as reinforcements during the Sortie. This may include the Rounds at which the Platoons arrive.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Reserve Units	The types of units (but not necessarily specific names) each team plans to use as reinforcements during the Sortie.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
After Action	Whether or not Downtime is available after the Sortie ends. This may also include the type and number of Downtime actions available.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS

INTEL	DESCRIPTION	USED IN
Command Actions	The type, number, and quality of Command Actions available for units which can use Chipsets. Default Command Action templates should be used unless the game is a Tactical or Strategic Operation.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Terrain	A general overview of the Terrain present on the map, for reference. For Strategic Operations, this will include the map's Strategic Layer Topography, Features, and Landmarks.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Weather	The type and value of Weather present during the Sortie. Wind direction should be determined before the Sortie starts. This also includes the temperature.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Time of Day	The time at which the Sortie takes place. This usually includes an hour and the mechanical term for the Time of Day.	PICK-UP GAMES SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Field Control	Whether or not a team will control the map upon achieving victory. This has specific implications for salvage.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Withdraw	Whether or not a team is eligible to withdraw from combat before a victory condition is met. Usually withdrawal is on a per-unit basis. Once withdrawn, units may not re-enter the battle.	SINGLE SORTIES TACTICAL OPERATIONS STRATEGIC OPERATIONS
Team Attrition Limit	The number of Damage Steps a team may suffer before automatically losing the Sortie.	SINGLE SORTIES TACTICAL OPERATIONS
Retry	Whether or not a team may attempt the Sortie again after failure.	SINGLE SORTIES TACTICAL OPERATIONS

Some Intel may be listed as "Unknown." If Intel is instead Unknown, there is no data to be reviewed for that piece of Intel. The Main Objective, Withdraw, allied Attrition Limit, and Retry parameters are never Unknown. It is recommended that Command Actions and Field Control are also always provided.

UNITS and PLATOONS

In METALLURGENT, all units are organised into Platoons. Platoons act with a composite Initiative and, on the Strategic Layer, move, shoot, defend, and support other Platoons as a homogeneous entity. Platoons have 4 slots for units, and always have between 1 and 4 units. These units may be unique or they may all be the same. Platoons may be composed in the following ways:

- Units with 3 or fewer Components take up one slot in a Platoon
- Units with greater than 3 Components take up two slots in a Platoon
- Anvils take up all four slots in a Platoon

Each Platoon has a composite Initiative value. This value is derived by simply taking the average Initiative of all units in the Platoon. When the Platoon takes its Turn, each unit within that Platoon takes its Turn individually, although any unit within that Platoon may act first. Units within a Platoon must finish their Turn before passing to another unit, and once all units within a Platoon have acted, the Platoon's Turn ends and passes to the next one. A Platoon that has lost all of its units is removed from the Initiative order. Check out the NPC unit sheet here: Conventional Unit Tracker 2.0

ASSEMBLING PLATOONS

Generally-speaking, Platoons range in power from positively wimpy to game-ending threats. A lot of the power of the Platoon comes from the ability to mix and match units, but Platoons composed of a single type of unit (such as the dreaded 4x T-84 Platoon) can pose a huge threat as well. A point value system will eventually be implemented into METALLURGENT, but for the time being, eyeballing power will have to suffice. Below are some observations made during internal Alpha testing.

- Tanks can be scary, but need support
  - All tanks have high Resistances and powerful main guns, but as a result, they can be targeted early by fast-acting units and blasted off of the map before they get a chance to act. Use Cover or station a defensive unit with a CIWS or similar Gear with your tanks to give them some protection. Generally, a Platoon of four tanks is roughly able to take on a single Anvil.

- Don't leave your Commanders alone
  - Be sure to protect your Command units with strong defenders. Use lighter, faster units to help bump up the Command Platoon's Initiative if you want to use your Chipsets quickly, or sandbag your Initiative with heavyweights to go later in the Round and get a better chance to react to the situation as it unfolds. Generally, you shouldn't have more than one Commander on the field at any given time, but there is no rule against it.

- Don't neglect chaff units

- Lightly armoured units such as BMPs, Humvees, and other similar units make good filler and can easily harass players with their speed. Some of these units may even carry powerful anti-tank weapons to sting Anvils and other armoured units before they back off. These types of units are never going to be able to go toe-to-toe with larger ones, but they don't have to in order to make an impact.

- Combine and conquer
  - Don't be afraid to test out different combinations of units in a Platoon. Some games will offer you a prepared list of units, but for games that are more malleable, try out new combinations. For Strategic Operations, remember that composite Resistance is calculated by taking the *highest* Resistance among all units in the Platoon, so it can be very easy to hit high Resistances across the board simply by mixing and matching units.

- They're tough, but they ain't invincible
  - Anvils are kings of the modern battlefield, or so their pilots will tell you. A single Anvil is worth roughly four tanks or four GPs, two SPs, or twenty Humvees. Do not be afraid to sling as much ordnance as you want at an Anvil. Damage Steps are designed to arrest damage spirals, and so even the lightest Anvils can take multiple rounds of punishment before capitulating.

UNIT CATALOGUE

Below is a catalogue of all units available to the major spheres of influence and independent armies, circa 1995. Each unit comes with its own specific strengths, weaknesses, and availability. Please note that the METALLURGENT Beta NPC Sheet takes priority if there is a differential in unit stats. As with all else, if you discover a discrepancy, please let us know, and we'll take care of it promptly. Check out the sheet here Conventional Unit Tracker 2.0

PILOTS and CHARACTERS

As fearsome as the mighty Anvil is, it is merely a multi-million Mona statue without the mind and body of a Pilot. Pilots are individuals who, through training, gumption, desperation, or sheer stubbornness, have developed the necessary skills and mentality to drive a multi-ton war machine into combat all by themselves. They bridge the gap between fighter pilots and tank crews, and as a result, Anvil Pilots are looked upon as a blend of fearless daredevil and rough-and-tumble jock.

In the aftermath of Y2K, Anvil Pilots run the gamut from noble knight to cutthroat bastard. Some Pilots are heroic visionaries seeking to reclaim the peace of the Silver Age, while others are just in it for a piece of silver. Others still are beholden to their chains of command, or complete renegades carving their own path in the new millennium. Whatever the case, nobody denies the skill and prowess of the Anvil Pilot; respect is earned, sometimes begrudgingly.

CHARACTER GENERATION

It is assumed that most people who play METALLURGENT desire to step into the shoes of an Anvil Pilot. While not all player characters need to be a Pilot, this section will help guide you through the basics of character generation assuming you *do* wish to drive an Anvil.

Outside of the Anvil (or whatever machine they happen to inhabit in combat), both player characters and non-player characters (NPCs) have a list of Attributes and Knowledges. Attributes represent the physical, mental, and social capabilities of a character, while Knowledges represent education and experience gained over the course of their lives. Upon making a new character, they have only their basic Mettle to rely on, and as a result have no bonuses to any Attribute. They also have not learned anything yet, and so have 0 Knowledges. As you build your character, you will be able to modify these aspects as you see fit. Lifepaths, Professions, and Developments all modify your character in one way or another, so consider them carefully.

Once you have assigned your character's Lifepath, Profession, Developments, and all of their Attributes, Knowledges, and Talents, that character is complete. It will be a while before they grow further. Simply doing a good job on the battlefield isn't going to necessarily be enough to improve your character's mastery at cooking food, after all.

In addition to the makeup of your character as a person, they will also develop their own personal way of fighting while in an Anvil. Specialisations (also known as Specs) are broadly applicable methods of fighting which your character may grow into. Each Spec has a cluster of Skills within it, and characters may pick up these Skills as their efficacy in combat continues to improve.

This system is not quite finished, but is a general idea of the narrative, character-driven side of METALLURGENT we hope to include upon the game's full release. However, you should look at the Specialisations and Skills section to determine how you want your Pilot to develop their fighting style. Many games will permit the use of Specs and Skills, and many Ace units have their own set, so don't neglect them! Otherwise, bear with us as we continue to chisel away at this section of the game between now and full release.

ATTRIBUTES

Attributes are divided into three Fields, which are further divided into three Foci each. Your Attributes roll using your Mettle, which begins at 6d6. Each improvement to an Attribute improves your cast dice pool by the improvement's value. For instance, if you have +2 in Athletics, you would roll 8d6 anytime you were required to cast Athletics.

ATTRIBUTES		
FIELD	**FOCUS**	**DESCRIPTION**
PHYSICAL	ATHLETICS (ATH)	Bonus to tests of strength, agility, running, climbing, swimming
	ENDURANCE (END)	Bonus to survival, drinking and eating, dealing with harsh conditions
	FINESSE (FIN)	Bonus to dexterity, somatic actions, moving quickly, and balancing
MENTAL	CALCULATION (CAL)	Bonus to logic, memory, and the ability to devise tactics
	COMPOSURE (COM)	Bonus to thinking quickly, inventiveness, concentrating
	INVESTIGATION (INV)	Bonus to perception, identifying physical and mental clues
SOCIAL	INTUITION (INT)	Bonus to insight, understanding, and developing a gut feeling
	GUILE (GUL)	Bonus to deception, misdirection, being inconspicuous
	GRACE (GRC)	Bonus to charming and intimidating people, bartering, dealing with animals

KNOWLEDGES

Like Attributes, Knowledges are divided into three Fields, which are further divided into three Foci each. However, Knowledges also have proficiencies, which are a measure of how specialised your character is within that subset of Knowledge. Whenever you cast a dice pool which is related to your Knowledge, you modify that pool's success criteria based on the Knowledge required and your proficiency within it.

For instance, if you aren't trained in Chemical Engineering and are required to cast Knowledge: Chemical Engineering to identify a chemical spill, you would roll your Investigation Attribute, but only show successes in your cast dice pool on results of 5+. Depending on how strong your Investigation Attribute is, you may still stand a half-decent chance at identification. Otherwise, it might be wise to make yourself scarce!

KNOWLEDGES		
FIELD	**FOCUS**	**DESCRIPTION**
SCIENTIFIC	ENGINEERING (ENG)	Understands maths and science, chemistry, work and energy
	MATHEMATICS (MTH)	Understands maths and statistics, logic, code
	METEOROLOGY (MET)	Understands weather, day and night cycles, seasons
DRAMATIC	AESTHETICS (AST)	Understands composition and rhythm, patterns, colour and shape
	LANGUAGE (LAN)	Understands dialectical differences, alphabets, tonality and inflexion
	POLITICS (POL)	Understands cultural and societal opinions, risk, exchanging favours
REALISTIC	GASTRONOMY (GAS)	Understands food, cuisine, alcohol, cooking and baking
	GEOGRAPHY (GEO)	Understands flora and fauna, orientation, roadways and travel
	MEDICINE (MED)	Understands bodily functions and responses, healing, psychology

PROFICIENCIES

Upon assuming a Knowledge, you gain a general overview of that field of science, art, or experience. Whenever you cast dice you may add 1d6 to that pool if the casting is relevant to that Knowledge. This may stack on top of the bonuses granted to you by your Attributes. When you obtain a Proficiency within a Knowledge, you reduce the success criteria of cast dice pools relevant to that Proficiency by 1, to a minimum of 2.

You may increase your Proficiency in a Knowledge up to 3 times, choosing a new Proficiency each time or improving one. Proficiency improvements, as of now, only come with character generation (as this system is still unfinished).

Knowledges you do not have are considered Unproficient, and increase your success criteria in all cast dice pools related to that Knowledge by 1, to a maximum of 6. Characters may be smart, but they won't know everything, and it's useful to rely on your teammates to help cover for areas in which you aren't as sharp.

KNOWLEDGES (PROFICIENCIES)		
ENGINEERING	CHEMICAL	Applies to situations relevant to chemistry, chemicals, and biology
	ELECTRICAL	Applies to situations relevant to electricity, computers, and energy
	MECHANICAL	Applies to situations relevant to mechanics, machinery, and heat
MATHEMATICS	GEOMETRY	Applies to situations relevant to geometry, trigonometry, and algebra
	LOGIC	Applies to situations relevant to logic, code, and higher-order equations
	STATISTICS	Applies to situations relevant to statistics, graphical analysis, and pattern recognition
METEOROLOGY	ATMOSPHERIC	Applies to situations relevant to weather, cloud formations, and storms
	CELESTIAL	Applies to situations relevant to planets and moons, stars, and cosmic weather
	TERRESTRIAL	Applies to situations relevant to seasons, oceans, and tectonic phenomena

KNOWLEDGES (PROFICIENCIES, CONTINUED)		
AESTHETICS	ARTISTIC	Applies to situations relevant to drawing and painting, writing, and observing colour
	RHYTHMIC	Applies to situations relevant to music, tempo, and listening carefully
	SOMATIC	Applies to situations relevant to sculpture, dance and choreography, and dexterity
LANGUAGE	ANCIENT	Applies to situations relevant to language and writing no longer used
	CLASSICAL	Applies to situations relevant to language and writing used within the past 2000 years
	MODERN	Applies to situations relevant to language and writing used currently, including slang
POLITICS	CULTURAL	Applies to situations relevant to local and national cultural norms and tastes
	GLOBAL	Applies to situations relevant to geopolitics and modern interactions between nations
	HISTORICAL	Applies to situations relevant to historical geopolitics and outdated cultural tastes
GASTRONOMY	ABLUTIONARY	Applies to situations relevant to creating, imbibing, and processing edible liquids
	CONFECTIONARY	Applies to situations relevant to creating, ingesting, and processing edible sweets
	CULINARY	Applies to situations relevant to creating, ingesting, and processing edible foods

KNOWLEDGES (PROFICIENCIES, CONTINUED)		
GEOGRAPHY	CONSTRUCTED	Applies to situations relevant to cities, roadways and railways, and architectural works
	NATURAL	Applies to situations relevant to flora, fauna, and natural environments
	NAVIGATIONAL	Applies to situations relevant to operating vehicles, travelling, and reading maps
MEDICINE	EMOTIONAL	Applies to situations relevant to calming or stirring up the emotions in others
	MENTAL	Applies to situations relevant to soothing or inflaming the psyche of others
	PHYSICAL	Applies to situations relevant to repairing or worsening the wounds of others

LIFEPATHS

Anvil Pilots do not spring out from nothingness, fully formed, ready to take the controls of an Anvil and wreak havoc upon their enemies. Everyone starts from somewhere. Your character's Lifepath is a general background which details their upbringing and skills they may have learned early in life. Each Lifepath grants your character bonuses and maluses to certain Attributes and usually includes a Knowledge. You may choose to create your own Lifepath, of course, at the discretion of your Coordinator (or just for fun).

LIFEPATHS
Coming soon!

PROFESSIONS

Many Anvil Pilots (and indeed, many adult characters) hail from a sector that doesn't strictly involve slinging explosive ordnance at distant targets. Some Anvil Pilots are engineers or chefs or philosophers. Somehow they found their way into the cockpit of an Anvil, and they're not going to let opportunity slip them by. Choosing a Profession further modifies your Attributes and provides you with at least one Knowledge. If this Knowledge is the same as the one you picked up in your Lifepath, you improve your proficiency with it and learn something specialised in the field (such as Atmospheric Meteorology).

PROFESSIONS
Coming soon!

DEVELOPMENTS

An upbringing and a job might form the foundation of a character, but as life goes on, that character might be taken in new directions, willingly or not. Developments are simple point bonuses you may assign to your character to further differentiate them from others. You may choose to boost an Attribute, gain greater proficiency with a Knowledge, or pick up a special Talent.

DEVELOPMENTS
Coming soon!

SPECIALISATIONS AND SKILLS

Your character's Attributes and Knowledges may not help them in the heat of combat, but their **Specialisation** and **Skills** certainly will. Specs and Skills make up the unique fighting style of an Anvil Pilot (or the pilots and crews of other vehicles). Even if two units share the exact same loadout, their Pilots may differ in their preferred methods of waging war.

Each pilot gains a Spec after the first time they pilot an Anvil. This is a fundamental aspect of their particular fighting capability, and cannot be changed. Skills, on the other hand, are accrued through **Experience** (XP). XP is automatically awarded at the end of character generation, and additional XP is granted at the end of each Sortie (provided the character comes back alive).

XP may be gained in the following ways:

- Surviving a Sortie grants 1 XP
- Accomplishing the Main Objective of the Sortie grants 1 XP
- Accomplishing a Secondary or Hidden Objective grants 1 XP apiece
- Disabling or Destroying a hostile Anvil grants 1 XP
- Circumstances unique to the Sortie may provide opportunities to earn additional XP

As a character gains XP, they in turn generate **Skill Points** (SP). SP is the currency for purchasing new Skills, allowing characters to grow their XP totals as high as they can. Characters gain **1** SP for every **prime** number value of XP they reach, excluding 1. For instance, a new character would gain 1 SP at 2 XP, then another at 3 XP, then another at 5 XP, and so on.

A character's XP total is known as their **Martial Aptitude and Resourcefulness Assessment** (MARA) score. New pilots have a MARA score of 0, and are commonly referred to as "goose eggs" as a result. The MARA scale stops at 499, for a theoretical total of 95 SP. Many strong Anvil pilots have MARA scores in the 20-30 range, and Aces can easily exceed 50.

When you choose a Spec, you aren't locked into that Spec's Skills. Whenever you wish to cash in your SP for a new Skill, you may buy from any Spec. Purchasing Skills in the Spec you chose comes at the listed price. Purchasing Skills in Specs you didn't choose come at a 50% markup. That is to say, if you chose the **Guardian** Spec and want to pick up *Lightning Strike* from **Battlemaster**, you'll need to pay 3 SP for it. Remember, METALLURGENT rounds up!

Check out the link below for Specs and Skills, their costs, and their descriptions.
METALLURGENT Pilot Specialisati…

SPECIALISATIONS

Specs make up the backbone of the Skill system. There are 10 Specs to choose from, each with 3 Skill branches inside. Remember, once you choose a Spec, there's no going back!

SPECIALISATIONS	
BATTLEMASTER	A highly mobile Specialisation designed for Pilots who want to get the most speed and agility out of their Anvils.
GUARDIAN	A defence-oriented Specialisation with raw durability and longevity in mind, allowing Pilots to weather damage that would cripple other units.
HEAVY GUNNER	An offensive Specialisation focused on laying down indirect fire on hostile positions, either with great accuracy or with reckless abandon.
MARKSMECH	A Specialisation designed for maximum accuracy with ranged weapons, designed for Pilots who want to get the most bang for their buck.
PUGILIST	A melee-oriented Specialisation for Pilots who like to get up close and show off their footwork, or simply smash everything with their armoured fists.
PROFESSIONAL	The thinking man's Specialisation, designed for Pilots who desire to squeeze as much efficiency as possible from their Anvils.
ROUGHRIDER	A rough-and-tumble Specialisation focused on embracing the inevitable conquest of entropy, or delaying it just long enough to kill one more target.
SCOUT	A Specialisation designed for Pilots who wish to take advantage of their environment and assist their allies with effective guidance.
STUNTMECH	A unique Specialisation focused on using Gear and Components in unorthodox ways to augment offensive and defensive capabilities.
TECHNICIAN	An electronic Specialisation for Pilots who want to keep their internal systems safe and clean, or shred the sensitive innards of enemy units.

SKILLS

Skills are the meat of Specs, and make up the majority of your Pilot's customised fighting style. Each Skill has a different SP cost, but generally speaking, the further down the branch, the higher the cost.

Some Skills have **Subskills**, special modifiers (or new Skills altogether) which can only be purchased when their mother Skill has been unlocked. Subskills are demarcated by their indentation underneath their mother Skill.

Skills are divided into three categories: **Passive**, **Active**, and **Sustained**. Passive Skills are always "on," Active Skills have to be manually activated, and Sustained Skills are toggled on and off. Sustained Skills may only be toggled during Upkeep (unless otherwise stated) and cannot be toggled on and off in the same Round. Some Skills have costs associated with them, like spending EN or taking some Heat, and some Skills merely require a conscious decision from the player to be used.

All Skills have a listed frequency in addition to their category and cost. The frequency determines how often the Skill can be triggered. Some Skills can only be used once per Round (1/Round), while Skills without a frequency can be used as often as their conditions are met.

Characters may learn new Skills in any Spec, but they may not learn the bottom-most Skill in a branch without first learning a Skill elsewhere in that branch, unless they own that Spec. For instance, a character couldn't take **Heavy Gunner** then immediately grab *In the Zone* from **Marksmech**. They would first have to pick one of the earlier Skills in the **Specialist** tree from **Marksmech**, such as *Practised Perfection* or *Critical Assessment*. Remember that all Skills learned outside of your chosen Spec come at a 50% markup!

Skills may be unlearned anytime they may be learned (usually Downtime). When a Skill is unlearned, it refunds its base price in SP. Subskills are automatically refunded as well if their mother Skill is refunded. Unlearning a Skill does not disqualify you from holding onto bottom-most Skills (you can refund *Lunge* if all you want is *Wrack and Ruin* from the **Brawler** tree in **Pugilist**). Do note that you will not get back any SP spent as part of a markup, so be cautious when planning to unlearn Skills.

It is your responsibility to remember which Skills you have unlocked and which Skills you plan to make use of in combat. If you forget or mistime a Skill, you'll simply have to remember for next time. In this way, no Skills are truly automatic, and you should never expect your Coordinator to remember all of your Skills and Skill synergies. As such, you may end up with more Skills than you can conceivably remember to use in a timely fashion. This is okay! Choose the ones you want to use the most with your build and stick to those, and you'll do just fine.

PATCH NOTES

METALLURGENT Version 0.1.9a (updated 24 March 2025)

- Pavement tweaked.
    - *No longer Sideslip when changing Facing, only upon terminating movement on a Pavement hex. Sideslip chance reduced to 1 in 6. I am so sick of seeing this crap in games.*

METALLURGENT Version 0.1.9 (updated 20 January 2025)

- Cover tweaked.
    - *No longer is reduced by half when interacting with sufficient damage, but instead i reduced by 1 each time. EXO and DEMO Payloads will wreck Cover pretty fast, so if you fear the trees, pack some heat.*

- LoS tweaked.
    - *LoS is only broken when (generally) it is higher in height than the parties involved, instead of being an "equal to or greater" situation. This prevents tanks and other height 1 units from hill-humping and forces them to actually seek Cover as opposed to relying on 1 Level changes for invincibility. Apologies to the group that discovered this one the hard way.*

- Kicking tweaked.
    - *Adds Dodge Bonus to dice pool when rolling. Added clauses which state that kicks can't be performed against targets which are out of vertical reach.*

- Punching tweaked.
    - *Punching now only costs 1 Charge, but you can only punch a number of times in a Round equal to that Arm's Agility (minimum once).*

- Melee tweaked.
    - *Melee attacks now check for verticality. As a baseline, you can only melee attack targets if they're within 1 Level of your comprehensive height. An Anvil on Level 0 can punch a tank on Level -2 or another Anvil on Level 4, but can't go further out of bounds.*

- Obscured Condition added.
    - *Obscured is a special Condition like Jammed that is more Gear-oriented than the other Conditions. The Obscured Condition is most often applied with Obscurant Payloads (hence the similarity in name).*

METALLURGENT Version 0.1.8 (updated 7 January 2025)

- Shield rules clarified.
    - *Shields can no longer protect you if the attack originates from the Aft Arc. This makes backstabs, Top Attack, and well-placed AOE attacks better against Shielded targets, and also provides some additional armature for Conventional Unit design.*

- Orders no longer vanish after your Turn ends.
    - *Otherwise off-Turn Chipsets like Kohne's Incoming! and Everybody Down! wouldn't work.*

- Clarified that LCA Orders can only be spent during your Turn unless that specific Chipset states otherwise (such as in the case of Incoming! and Everybody Down!.
    - *This is more or less to prevent abuse and keep timings consistent.*

- Made language surrounding Facing changes more congruent.
    - *Everything has to spend its Manoeuvre Cost to change Facing UNLESS it spends 1 Move Speed or uses the benefit of moving at least 1 hex to change Facing by 1 side. Anvils, uniquely, can change their Facing when it is not their Turn, but may only do so by spending their Manoeuvre Cost, not 1 Charge.*

- Fuse Sensors now reads correct Order cost.
    - *Begone Chipset Tiers, nobody liked you anyways.*

- Added some more language to DZ selection.
    - *You may now choose to use DZs of lesser Initiative as long as your Initiative is equal to or higher than that DZ's Initiative block. For instance, 9+ units can use white, purple, blue, or green DZs.*

- Plasma Overheat now specifies that all Heat dissipation on your Anvil goes to 0 temporarily.
    - *This way you stay on the scheduled Overheat timers of Plasma-Cooled Generators instead of having Radiators technically dumping Heat but not taking you out of Overheat status.*

METALLURGENT Version 0.1.7 (updated 4 January 2025)

- Suppressed Condition added.
    - *Gives units an additional option to deal with Jamming, which should become more prevalent with the Jammer changes (which are more evident in the Assembly Sheet at the moment).*

- Skill section reworked.
    - *Spec Sheet 3.0 is out baby.*

- Stuntmech Spec added.
    - *Huck your empty grenade launcher at a man for like 2 KE damage (wow!).*

- Tweaked Initiative section.
    - *Now that Init means something, there's some more meat in there. Will likely stretch out into a proper Deployment Zone section once we figure those out.*

- Conventional units may no longer change Facing outside of their Turn.
    - *Only Anvils can perform this action.*

METALLURGENT Version 0.1.6 (updated 12 October 2024)

- Majority of images removed.
    - *This is an effort to speed up the load time of the live document and eliminate formatting issues. Images will be restored at a later date.*

- Catalogues removed.
    - *This is to eliminate confusion between the book and build sheet, and speed up loading times. The tables were pretty crappy anyways and would need to be redone in the future. Catalogues will be restored at a later date.*

- Skill list removed.
    - *For the above reasons. Will be restored once the Skill rework is done and the book is ready for formatting.*

- Movement rules updated.
    - *You can now change your Facing by 1 side after moving at least 1 hex. As a result of this freedom, changing Facing to any side or when it is not your Turn has gone back to costing the unit's Manoeuvre Cost.*

- Cover reworked.
    - *Now is purely Density-based and no longer has a "normal" and "heavy" qualifier. Cover is now Cover, and its durability is based on the Density value. Additionally, Cover now degrades whenever it interacts with damage that equals or exceeds its Density value; Cover Density degrades by half when damaged, until it reaches 1, after which it turns into Rough Terrain.*
    - *This should help a little with the confusion that was stemming from Cover Types. This also makes more intuitive sense I think.*

- Woods tweaked.
    - *Due to Cover rework. They still have their basic values. Woods also now block Line of Sight if more than 2 Woods hexes with a combined Density of 4+ are between two units. Melee units are eating well this patch.*

- Structures tweaked.
    - *Due to Cover rework. Structures now bear less Load too (only 5 ST per Density value), but can more easily reach higher values without being obnoxious, so it should work out.*

- Depth rules tweaked.
    - *Submerged units (relevant for amphibious units and underwater ones) now only take half damage from units above the surface of the water.*

- Sideslip reworked.

    - *Now eats your Move Speed if you Sideslip due to Terrain, and randomly changes your Facing. Hovers and flying units are ignorant of this rule as they do not Sideslip due to Terrain but rather as an innate function of their motive type.*

METALLURGENT Version 0.1.5 (updated 15 September 2024)

- Conditions and Errors section revamped.
    - *Tabulated for additional clarity in lieu of using bullet lists.*

- Stagger Condition tweaked.
    - *No longer observes Special damage and is now cleared upon taking KE/CE/TE damage. This is to prevent problems with bookkeeping the secondary BID malus effect of Staggered.*
    - *Staggered now reduces BID Bonuses by 3 across the board until damage is received (again, Special damage doesn't count).*

- Low Condition wording clarified.
    - *Now declares that your DV is increased by 1 instead of some mysterious unknown value.*

- Painted and Locked Conditions tweaked.
    - *Can now be removed via Manoeuvre Cost. This should help units which are in the thick of things, and also give Commanders more reasons to use their Adjust Attitude Chipset.*

- Hidden Condition tweaked.
    - *Attempted to make it a little clearer.*

- Shutdown Condition tweaked.
    - *Made clearer and added a few new clauses such as not being able to spend Orders, which weren't covered under the previous rules.*

- Errors reworked.
    - *Now come in two flavours: Generic and Special. Generic Errors are those which can apply to all units regardless of class. Special Errors only apply to Anvils and SPs.*

- ERR: SYS and ERR: CLG tweaked.
    - *Now specify that the unit can only benefit from EN generation/Heat dissipation during Upkeep, so with these Errors, you can't benefit from APUs, incidental cooling, or Orders.*

- Error: Defence added.

- Error: Attack added.

- ERR: TGT removed and its effects added to ERR: FCS.

- Added nomenclature for special chassis abilities (Biped turning, jumping, etc) to create parity with Conventional Unit tags (Climber, Jumper, Steady, etc).
    - *Inshallah the language will eventually be harmonious throughout the entire system.*

METALLURGENT Version 0.1.4 (updated 5 August 2024)

- Facing costs changed.
    - *All units now spend 1 EN/Charge or 1 MS to change Facing, instead of full Man. Cost. This should help Anvils and casemate units in close combat and keep non-hover MBs more competitive where agility is required.*

- Pavement terrain tweaked.
    - *Changing Facing now only procs a Sideslip chance after Flanking. You can now Cruise without leaving skidmarks everywhere.*

- Mud terrain tweaked.
    - *Changing Facing now only procs a Stuck chance after Flanking.*

- Sand terrain tweaked.
    - *Changing Facing now only procs a Slow chance after Flanking.*

- Ice terrain tweaked.
    - *Changing Facing now only procs a Sideslip chance after Flanking.*

- Lingering Payload removed.
    - *P'tuah.*

- Staggered Condition altered.
    - *Instead of juicing all damage by 3, now grants the next Hit Penetration, as the Payload. This should help big damage weapons which don't have access to Pen reliably plough through Damage Steps and threaten units which would otherwise Block into a low AP Component and get away relatively scot-free. This should also thoroughly eliminate Stagger/Burst and Stagger/Scatter combos (rip Osa).*

- Spotting FCS tweaked.
    - *Now ignores up to 2 points of DR due to Cover. Also added a clause which clarifies that the DR reduction is **per** Cover instance. You can literally miss the forest for the trees now.*

- Infrared FCS clarified.
    - *Now obeys LoS, not that it would help out of LoS anyways.*

METALLURGENT Version 0.1.3

- Low Condition altered.
    - *Now provides 1 DV versus attacks originating from beyond adjacent hexes across the board. Easier to track and can be turned off by Tracking/other DV-ignorant tech.*

- Bipeds altered.
    - *Can no longer go Low for free, but can still move around easily while Low. As Low now grants 1 DV, Bipeds no longer gain a DV boost due to their chassis. Biped slide-hopping was a little too good.*
    - *Climbing is now more intuitive (hopefully) and easier to use, however some vagary is in place regarding how a Biped gets onto a new hex. Will address in future patch.*

- Reverse-Joints altered.
    - *While Low they automatically get their bonus accuracy. Otherwise it was a little too restrictive for heavy/slow RJs.*
    - *Jumping is now more intuitive and now replaces Flanking instead of Cruising, again to alleviate issues with heavier/slower RJs (which may still have crappy jumps, but it **is** the 90s.*

- Quadrupeds altered.
    - *Gained the ability to ignore Flanking Accuracy malus when making attacks. Melee attacks already don't care about Flanking, but now Quads can stay mobile and keep lobbing artillery (or whatever they do these days).*
    - *Slam now deals 2x MB Load in KE Damage (wow!)*

- Wheels altered.
    - *Sideswipe no longer deals 2x MB Load in damage, but now has a greater activation radius and will let you place yourself in any hex adjacent to the target, as if you've really drifted into them like that dude from Fast and Furious 3.*

- Added section for falling into units.

- Added section for RJs specifically jumping *into* units.
    - *Death from above!*

- Cleaned up some language around Upkeep and Taking your Turn sections.

- Updated Specs/Skills to match what's on the sheet.

- Exchanged High Impact Function for the High Impact Payload.

- Added Precise Function.

- Added Top Attack Function.

- Added Distance Payload.

- Tweaked Blast Payload rules.
    - *Blast attacks which hit a hex instead of a unit now deal half their listed damage value to units in that hex. Damage dropoff continues as normal (halving original damage at radius 1, halving that at radius 2, etc).*

- Tweaked Cooling Payload rules.
    - *Now affect units which don't track Heat, in cases where conventional units would burn down (they can be salvaged by hitting them with a Cooling Payload).*

- Added specification in the equipment rules that all active equipment generates Heat at the start of the Turn (if it has a Heat value) unless otherwise specified.
    - *So far only Chaff and CIWS are exceptions to this general rule, but hopefully there isn't any more confusion about LCA Heat.*

- Attempted to further clarify direct attacks receiving maluses from Occlusion.

- Clarified that EN and Heat spent during your Upkeep do not disqualify you from receiving benefits during Emergency Upkeep.

- Added additional armature in the Ranged and Melee Attacks section to clarify that ranged attacks obey Optimal Range and melee attacks don't care.

- Added sentence to Indirect Attacks section to clarify that no, melee attacks cannot be indirect.
    - *I made it through two engineering degrees and a job with NASA without drinking but you people might convince me to start.*

- Added a small sentence to the Energy section which says you always start a Sortie with full Energy.
    - *It may get broken out into its own section as part of the "how 2 play" section.*

- Clarified Burst Function to specify "attempted" Hits for Accuracy gain.

METALLURGENT Version 0.1.2

- FCS Infrared now reduces combined Occlusion from ToD, Weather, OBS to a minimum of 1 (combined).

- Infrared Vision Modules now completely ignore Occlusion from ToD, Weather, OBS.

- Burning Fuel has been reworked slightly.
    - *Can now be done at any time and pays for any amount of Man. Cost, but can only be done once per Round now. This should help when units get slammed with high Man. Costs and don't want to bite into their Charge. Only units with Charge can do this.*

- Liquid-Cooled Generators no longer lose half of their Output when Overheating.
    - *They still lose half of their EN Capacity.*

- Added language to clarify that the base stats of Overheating Generators are affected, and do not include bonuses granted by Gear such as Radiators and APUs.

- Damage Steps now clarify the difference between Disabled and Destroyed once again.
    - *This is to better clear up what happens when, for instance, your Arm is shot limp as opposed to blown clean off of your Anvil. This also applies to non-Anvils, and will be important for salvage and repairs during Operations.*

- Disabled Components no longer set their Load to 0 unless they are Destroyed.
    - *Additionally, a clause has been added to clarify that only positive value stats are reduced to 0. You'll have to live with that negative Camera Modifier after all.*

- Updated Anvil Damage Step effects with new language and effects based on differences between Disabled and Destroyed Components.

- Removed excess text in Taking Your Turn chapter.
    - *As an aside, it probably does belong in the rest of the Upkeep/general "Turn Economy" section, but this is not a priority fix at the moment.*

- Updated Drakon Laser Lance to reflect 4 EN instead of 6.

- Updated Bascom Laser Cannon to 6 Heat.

- Updated Assault Rifles (M110, Bailey, Krolik) to have their correct Load values.

- Updated Chaff Equipment to reflect changes made in 0.1.1.

- Updated M41 Recoilless Rifle to reflect changes made in 0.1.1.

- Updated Piledrivers (M90, M99, MAL-25) to reflect changes made in 0.1.1.

- Updated Machine Guns (M111, Mohr, Sarancha) to reflect changes made in 0.1.1.

- Updated Scatter Payload to include X value (which caps the damage).

- Clarified that the Scatter Payload has a hard cap of X, not X+1, as previous readings could insinuate.

- Updated Anti-Air Payload to new form.
    - *Now lowers success criteria versus fliers and raises success criteria versus surface units. Also now deals half damage to surface units, so using them as poor man's ATGMs is no longer very viable (and shouldn't be except in emergencies).*

- Updated Temperamental Payload to include timing language.
    - *Still need to figure out a better way to word its intended effect. If you show more 1s than 2s, 3s, 4s, 5s, OR 6s, it jams. All results of not-1 are not combined, so if you have 6 results and two 1s, a 2, a 3, a 4, and a 5, it jams.*

- Fixed a discrepancy with Tracking FCS functionality.
    - *No longer applies to entire Optimal Range after target is Locked.*

- Modified EWACS FCS bonus versus Airborne units.
    - *Now applies a flat +2 Accuracy buff instead of reducing success criteria. This is due to how AA Payloads now function.*

- Line of Sight has had a clause removed which caused unintended situations where a unit could be on top of Mt Everest and not be able to see a tank four mapsheets away if a single Heavy Woods was along the way.

- Line of Sight is now blocked if the obstruction is equal to the height of the unit attempting to draw LoS to a target.
    - *This is how it's been played, and this is the intended interaction. This allows tanks to butt up against Level 1 Elevation to protect themselves from ranged attacks, making them more survivable when jockeying for position and more vulnerable to melee and some forms of indirect fire.*

- Line of Sight is now as inclusive as possible when sitting on a hex side.
    - *If the defending entity always chooses, LoS becomes a moot point on hex sides. This way it's always going to fall on whichever side is more favourable for a clean shot.*

- Updated Facing to include clause for split hexes.

- Changing Facing now has a timing related to the attack steps in the **Attack and Defence** chapter.

    - *You can change your Facing any time during another player's Turn, but once an attack hits the activation step (after declaration), it's too late.*

- Exothermal Payload now converts damage to TE when striking a target that does not track Heat.
    - *This is to eliminate a source of composite damage.*

- Clarified wording on Into the Breach Chipset.
    - *As long as your allies end up within your LCA Range after everyone has moved, the movements are legal.*

- Clarified some text in the AOE section.
    - *AOE attacks automatically Hit if they come from a Projector or Linear weapon, but Blast and Cluster Payloads still need to roll to Hit, as they ride on their weapon's attack action without special rules.*
    - *HOWEVER, Blast and Cluster Payloads will automatically Hit all targets within their AOE once they land, either on their target or whichever hex they Drift to.*
    - *AOE attacks also no longer generate insane amounts of Exo Heat due to auto-hits.*

- Clarified that Damage Steps arrest damage during the activation which caused the Damage Step.
    - *May have to reword this in the future for effects which aren't attacks. Rules gremlins will live rent-free in my head forever I guess.*

- Updated Barker Grenade Launcher Exothermic Payload to reflect correct damage value of 6 instead of 0.

METALLURGENT Version 0.1.1

- Fuff text for XM890 Railgun updated.

- Added reminder to Depth section that Anvils are always 3 Levels tall and therefore immune to Depth 2 Water.

- Changed Cover and clarified some items
    - *Cover now has Density independent of Cover Type. Density still reduces damage which interacts with the Cover by its value. Cover Type changes as Cover degrades, but the Density does not, until the Cover is destroyed.*
    - *Added default values for Cover (same as they were before, just under new system).*

- Clarified that all Woods are Height 3 unless otherwise stated.

- Clarified language around indirect attacks and Line of Sight/Line of Fire.

- Clarified language around indirect attacks and obstructions adjacent to attacker/target.

- Fixed Cormorant MB being Biped.

- Changed timing for Incoming! And Everybody Down! Chipsets to be congruent with BIDs.
    - *Now explicitly function as a bonus to allied BIDs if you want them to be.*

- Corrected Load Tolerance breakpoint language.
    - *Breakpoints are a case of "equal to or less than," not "equal to or greater than."*

- Corrected Le-8 Reka's origin (USSR not USA).

- Corrected Spirale Payloads.

- Removed Goad Chipsets.

- Removed Infuriate (Greater) Chipset.

- Added Scatter values which were missing.

- Clarified that units summoned to the field with Command Chipsets are under the

control of the summoner, unless they wish to relinquish that control.
    - *Scenarios may have different stipulations, of course.*

- FCS Targeting Types now require Line of Sight. No more wallhacking your FCS laser.

- Clarified that Radars extend your Optimal Range out to their Range but only within their Search Arcs.
    - *EWACS only extends your Optimal if your target is an Airborne unit.*

- Clarified that Radars can be energised without being Jammed.

- Clarified that Radars automatically apply their Targeting Type effects to all units within Range/Arcs/Line of Sight.

- Clarified Always Round Up Golden Rule to be the last step during math.

- Corrected misnaming of Reserve Units.

- Clarified that every 10 tons of Load on your MB will reduce your Init.

- Clarified that Load Tolerance example is JUST an example.

- Corrected JN9 Special Mortar Cooling Payload.

- Stay Cool Chipset no longer has any Upkeep language in it to alleviate confusion.

- Corrected BGM-71A ATGM Payload.

- Slightly nerfed Assault Rifles and buffed Machine Guns (CHECK THE SHEET FOR THESE, THEY DIDN'T MAKE IT INTO THE BOOK YET).

- Changed Illuminate and Flashbulb to be more devastating but for a much briefer period.

- Buffed Piledrivers economy (CHECK SHEET).

- Fuse Sensors Chipset now works on the Commander using it.

- Boosted EWACS capability versus Airborne units.
    - *EWACS plus AA Payload means you can hit fliers on 2+.*

- Corrected M117 Cannon Payloads.
- Added section regarding what you can actually do on your Turn.
- Clarified that while Low, you can only Manoeuvre to punch, change Facing, and use Skills.
- Changed M41 Heavy Recoilless to be a better lightweight hunter at range rather than another AT option.
- Modified Auk Cruising/Flanking/Init modifiers on Load Tolerance breakpoints (SEE SHEET).
- Modified Bittern Cruising/Flanking/Init modifiers on Load Tolerance breakpoints (SEE SHEET).
- Corrected Sidewinder statblock to be Sidewinder instead of Diamondback.
- Changed fall damage to specify "greater than height." Tanks can now traverse hills without exploding.
- Corrected Ibis Refresh Cost.
- Corrected Eaglet Weapon Arm integrated howitzer Heat.
- Buffed Oblako Flares to have much higher missile redirection chances.
- Nerfed Savic Flares.
    - *They still work as a cheap personal Jammer if you don't want to spring for the full package.*
- Water hexes now require a Depth greater than 0 to grant you benefits. Extra Manoeuvre Cost while standing in Water dropped from +2 to +1.
- Lava hexes now only increase Manoeuvre Cost by +1 instead of +2.

METALLURGENT Version 0.1.0

A lot of things have changed. Too many to list since 0.0.7 really. But from here on I'll try to keep a better record.

METALLURGENT Version 0.0.7

Everybody say thank you to the Crowmosapien.

- Added a new Golden Rule
    - *Target Numbers are always known.*

- Upkeep tweaked for clarity.
    - *Upkeep now has a Power Up and Power Down clause (more on that later).*
    - *Upkeep now has a proper Heat gain step for Gear which gives you Heat while it's active.*
    - *Upkeep now resolves "start of Turn" effects.*

- Terrain updated.
    - *Wording clarified.*
    - *Sand now Slows instead of messing with your CQC.*
    - *Snow is less punishing.*
    - *Water and Lava now work the same way, but Lava will wreck your MB if you stay in it. You can still charge through Lava hexes and only gain Heat though.*

- Drift slightly retooled.
    - *Drift is now 1d6 on the same map, but Artillery Weapons will halve that, and pilot skills will presumably reduce that further, for good, accurate shots that can't possibly Drift behind the shooter :).*

- Attacks against hexes retooled.
    - *Indirect and without LoS, the DV is 6.*
    - *Indirect and with LoS, the DV is 4.*
    - *Direct and with LoS, DV is 2.*

- Manoeuvres have been retooled.
    - *Language clean-up, mostly.*
    - *Climbing has been removed from general Manoeuvres.*

- Bipeds retooled.
    - *Bipeds may now go Low and army-crawl.*

  - *Bipeds may now change Facing for free (for real now) once per Round.*
  - *Bipeds are now the only MB which can Climb, and Climbing rules work the same as they did before.*

- Reverse-Joints retooled.
  - *May now go Low to gain the Steady action, which works like their previous ability to dump Cruise for Accuracy.*

- Quadrupeds retooled.
  - *May go Low and get out of Low at any time. Think Battletech Scorpions.*
  - *Quads now cross elevation changes equal to half their height for free, similar to the old Biped bonus.*
  - *Gained the Slam action. No longer deals 2x damage but knocks targets Low.*

- Tracks language cleaned up.

- Wheels retooled.
  - *Gained the Sideswipe action. Deals 2x MB Load in KE damage. Commanders now have a pocket nuke in their toolkit if they don't want to bring any guns.*

- Hovers language cleaned up.

- VO/D language cleaned up in the introductory block.

- Lo-Band actions retooled.
  - *LF Scan language cleaned up.*
  - *LF Lock now attaches a Stage 1 Lock (and Locks are in Stages now).*
  - *LF Break now reduces one Lock's Stage by 1.*
  - *LF Jam language cleaned up.*
  - *LF Link is now for Lock sharing instead of EM Token sharing.*
  - *LF Process added to boost an ally's VO/D against the Bands.*
  - *LF Suppress added to Error blast things.*

- Hi-Band actions retooled.
  - *HF Scan language cleaned up.*
  - *HF Lock now improves the Stage of a Lock you have on a target.*
  - *HF Break now kills one Lock entirely.*
  - *HF Jam language cleaned up.*
  - *HF Link is now for EM Token sharing.*

- *HF Process added to boost an ally's VO/D against targets.*
- *HF Suppress added to Error blast things.*

- Prone Condition replaced with Low.
  - *Retooled as well. Less of a negative and more situational benefits, plus you can now move while Low.*

- Slow retooled.
  - *Now impacts your ability to change Facing and your accuracy when Kicking/Ramming, otherwise the same.*

- Stuck retooled.
  - *Now disallows Kicking/Ramming, otherwise the same.*

- Staggered language cleaned up.

- Running on Fumes language cleaned up.

- Shut Down removed and replaced with Shutdown as part of a special Power Up and Power Down ability units have to reset their systems.
  - *Shutdown makes you a sitting duck, but makes you immune to VO/D actions, clears all of your Heat, and sets your EN to max.*
  - *Powering Up clears all of your Errors, and removes Shutdown, and can't be taken while you're operating normally.*
  - *Yes I know it's a stun. Crucially, it's one you can opt into if things are going **very** poorly. Nothing will inflict the Shutdown Condition save for maybe some capstone pilot skill or something.*

- Errors language cleaned up, and Errors retooled.
  - *Can now officially suffer from more than one Error: ACT and Error: OFF.*
  - *Errors grouped by mouthfeel (Defensive Errors, Motive Errors, Electronic Errors, and System Errors.*
  - *Error: DRV now inflicts Special damage when you use your Manoeuvre Cost. Thought it was a little more interesting than Yet Another EN Tax.*
  - *Error: SEN added. Reduces EM Limit to 0.*
  - *Error: COM retooled. Now just reduces Lock Limit to 0.*
  - *Error: FCS retooled. Now just sets your Optimal Range to 0. Effectively a blind.*
  - *Error TGT added. VO/D actions are forbidden outside of the Nose Arc.*
  - *Error: CLG retooled: Now also removes Heat dissipation from Emergency Upkeep.*
  - *Error: SYS retooled: Now also removed EN generation from Emergency Upkeep.*

- *Error: OFF retooled. Language cleaned up. If your Core or Electronics go offline, sucks to suck. Power Down hijo.*

METALLURGENT Version 0.0.6

- Emergency Upkeep section added.
    - *Upkeep order also slightly modified for ease of tracking.*

- Players can no longer elect to reduce their Cruising/Flanking Speed without some prior effect, such as firing a Secondary.
    - *This is to eliminate shenanigans with dumping Cruise for free and gaining Flank benefits.*

- Movement tuned.
    - *Can no longer move through hexes occupied by non-allied units. May now officially move through hexes occupied by allies, but may not stack (unless one of you is flying).*

- Sideslip tuned.
    - *Can no longer Sideslip into hexes which are occupied or which require more than 1 Move Speed to enter (so no sideslipping into Heavy Woods).*

- Removed clause stating Reverse movement was capped at Cruising Speed.
    - *Less to bookkeep.*

- Removed clause pertaining to Depth 0 Water.
    - *Less to bookkeep.*

- Occlusion no longer applies to attacks which do not enter the Occlusion hex.
    - *This means you can hang out at the edge of a smoke cloud, gain Occlusion for yourself, and still have good numbers on targets outside the smoke.*

- Occlusion now uses the highest value when considering Occlusion sources that share a type.
    - *Smoke with Obscurant 2 and smoke with Obscurant 3 will result in smoke with Obscurant 3, if an attack passes through both sources.*

- Glare updated.
    - *Removed clause mentioning Lock Cost. Reworked to include penalties to LF actions.*

- Electromagnetic Interference
    - *Now increases the Noise Cancelling of the HF and LF Bands by 2.*

- Cover reworked.
    - *Light Cover is now 1 DR, Medium Cover is 3, and Heavy Cover is 5. Cover is also now reduced at the end of weapon activation, which means Cover can be burned through much faster. Cover also now does not degrade unless a weapon dealing 5 or more damage passes through it.*

- Structures now block LoS.
    - *It's official now.*

- Woods Terrain now has height.
    - *All Woods hexes are 3 Levels tall unless otherwise stated.*

- Added rules for attacking Structures and hexes with and without LoS.
    - *Attacking with LoS makes the DV 2. Attacking without LoS makes the DV 6. Indirect attacks are significantly less accurate if the target is masked.*

- Changed Intercept.
    - *Intercept now grants a pool of distributable points which reduce incoming damage during an activation by 1 per point spent. 5 Intercept will let you knock off 5 points of damage for a big hit, 3 and 2 for two hits, 1 damage for five hits, etc.*

- Removed jumping.
    - *Only RJs can jump now, and only up to half their Cruising Speed. Doesn't make much sense for the current tech level if everyone can do it.*

- Added ramming.
    - *Works just like a kick, but with a different name. Striders kick, drivers ram. Simple as.*

- Punches tuned.
    - *Now deal ½ Strength instead of full Strength, to avoid situations where low Man Cost punchbots with gargantuan EN pools were handing out red cards to anything they could catch.*

- Facing tuned.
    - *May now spend Man Cost to change Facing during your turn, even when you have Move Speed left. This should help keep CQC builds agile.*

- Quads tuned.
    - *4+ Success clause now specifies Staggered and beyond Optimal Range scenarios.*

- Hovers tuned.
    - *Now Sideslip when firing Secondaries during Cruising.*

- Initiative tuned.
    - *Now calculated without taking the MB into account.*

- Fuel functionality temporarily removed.

- Gas-Cooled Generators buffed.

    - *Cold Environments now dissipate 10 Heat, Temperate Environments 9, and Hot Environments 8.*

- Battlefield ECM functionality temporarily removed.

- Basic Camera renamed to Simple.
    - *Significant suffix synonymity secured.*

- LCAs now begin in the active state.
    - *Makes things easier. Some equipment may begin in the active state or have a passive bonus that doesn't require tuning-on, like current APUs.*

- Equipment tuned.
    - *Back to 6 equipment slots, but a hard limit of 2 of the same type.*

- Equipment (Term) changed to Gear.

- Jettison rules tuned.
    - *May now jettison Gear of any size provided it's mounted to the Arms.*

- Shut Down Condition tuned.
    - *May now electively Shut Down to purge your system of Errors, as kind of a hard reset. Shut Down rules tweaked to provide an actual power up option.*

- Offline removed from Conditions, added to Errors (ERR: OFF).
    - *Is now an Error, because it uses Refresh Cost anyways. Still functions the same.*

- Stealthed and Camouflaged removed from Conditions.
    - *Not useful in the current gamestate. Might add again later on.*

- BID Errors tuned.
    - *ERR: ROT, ERR: ACQ, and ERR: MOB now double the costs associated with that BID action. If you've got a Vulkan Mobility Base have fun with your 12 Dodge Cost.*

- Actuator Error tuned.
    - *Now -2 Agility instead of -1.*

- FCS Error tuned.
    - *Now sets EM Limit to 0 as well. Goodbye Tokens.*

- Communications Error tuned.
    - *Now -2 VO/D instead of -1. Sets Lock Limit to 0. Goodbye Locks.*

- Destruction section added.
    - *Now we know what happens to units when they die.*

- Added new rules for Area of Effect attacks.
    - *AOE attacks now all play by the same rules (Blast, Linear, Projector). Currently hanging out on its own, but will be integrated into whatever the Weapons and Payloads section ends up looking like.*

METALLURGENT Version 0.0.5

- Added EWAR (finally)
    - *Added Electronic Battlespace, which is divided into the High Frequency (Hi Band) and Low Frequency (Lo Band) Bands.*
    - *Added Hi/Lo Band Lock, Scan, and Jam, plus Lo Band Link and Hi Band Seek.*

- Added new VO/D actions.
    - *HF/LF Scan, Lock, Break, and Jam are now basic EWAR actions all units capable of generating EM Tokens can take.*
    - *HF Seek is a unique Hi Band action.*
    - *LF Link and LF Spot are unique Lo Band actions.*

- FCS reworked due to EWAR.
    - *Lock Cost removed - Locks now use EM Tokens.*
    - *Lock Maximum renamed to Lock Limit.*
    - *EM Limit and EM Cost added to FCS - these define how good the FCS is at obtaining and handling multiple EM Tokens.*
    - *Deadzone and description added to FCS statblock.*

- Added Upkeep under the Energy chapter to organise start-of-Turn effects.
    - *EN first, then Cruise, then Heat, then turning Equipment on or off.*

- Fuel now has a reason to exist!
    - *Fuel can be Burned on getting hefty BID functionality and performing movement crimes, as well as telling the Overheat mechanic to peck off.*
    - *Fuel is still reduced by 1 at the end of each Sortie, so beware.*
    - *Running on Fumes added to Conditions (it sucks).*

- BID actions have been reworked.
    - *BID actions no longer roll versus incoming Hits. BID actions may still only be taken once per weapon Activation and EN is still spent, but BIDs are now guaranteed to happen. BID Bonuses have thusly been reworked, as have many other mechanics which formerly interacted with BID dice pools.*
    - *Block Bonus is now a limit on how many Hits can be blocked in a single Activation.*
    - *Intercept Bonus now improves Resistances by its value during an Activation.*
    - *Dodge Bonus now improves DV by its value during an Activation.*

- Cleaned up wording around BID actions.
    - *Rotation, Acquisition, and Mobility now only show up in Errors for flavour. Block,*

Intercept, and Dodge are now used for their relevant stat names.

- BID reworked when being attacked from Rear/Aft Arcs.
    - *Still -1 to the Bonus, but this now means something different. Aft shots might deny you BID if you don't have any BID Bonuses of 3 or greater.*

- DV is no longer a sum of BID Bonuses, and is instead now a Core stat.
    - *Currently DV goes from 3 (heavies) to 5 (lights).*

- Kicks now deal damage equal to MB Load.
    - *The American Quad MB can kick for 20+20 KE lol.*

- Punches now deal damage equal to Strength.
    - *The Gannet can wallop things for 10 KE with its bare hands.*

- Quads can now mule kick in the Nose and Aft Arcs, making two attacks.

- Gas-Cooled Generators buffed.
    - *Heat Dissipation increases by 3 when Overheated.*

- Plasma-Cooled Generators reworked.
    - *Dissipation becomes 0 for one Round then resets.*

- Errors co-located with Conditions for ease of reference.

- Staggered Condition reworded to impact new BID mechanics.
    - *Stagger now reduces all BID Bonuses by 1.*

- Rotation, Acquisition, and Mobility Errors now reduce their related Bonuses by 1.

- Added a clause about Equipment activation during Upkeep.
    - *Equipment can only be turned on or off during this time, and remains in that state.*
    - *The Offline Condition may change due to language conflicts, to keep things clear. Deactivated Equipment is different from Offline Equipment, and there are different stipulations for both.*

- Equipment is now limited to 2 officially.

- Resolving multiple Damage Steps now officially goes by die face progression (1 -> 6)

- Added new language regarding non-Anvil Damage Steps.
    - *Damage Steps for most non-Anvil units are now inclusive, meaning that a Damaged Turret will yield a Degraded Hull if a tank takes two Damage Steps in separate locations.*

- Changed some Errors around to try and make them more consequential (they're still kinda free).
    - *Modified Errors that dealt with BIDs and Lock Costs, which no longer exist.*

- Deadzones now reduce ranged attack Accuracy to -2.
    - *No longer push successes to 5+/no duplicates.*
    - *Deadzones no longer stack.*

- Indirect attacks now clarified, in the Attack and Defence chapter.
    - *Indirect attacks on ⅝, no dupes, and only work for CE/KE attacks.*
    - *Drift is 1d3 if you're on the same map, 1d6 if on an adjacent map, and 1d6 plus 2 per map past that. No travel time as of yet.*

METALLURGENT Version 0.0.4

- Mettle improved to 6 for all units.
- Cleaned up some wording here and there.
- Flanking Speed updated to disallow Flanking benefits if movement was terminated. by the player without external input (such as firing a Secondary).
    - *Units must spend all of their Cruising Speed before spending Flanking Speed, and cannot gain Flanking Move Speed if they have willingly declared the termination of their Cruising Speed.*

- Added language to help distinguish between terminated movement and paused movement (as in the case of Cruising, firing a Primary, and continuing to Cruise).

    - *Many weapons and equipment can be activated on the move. At any point during a unit's movement, it may choose to Activate a piece of Equipment, and preserve its remaining Move Speed until after its action has resolved. In such cases, movement is not considered to be terminated, as the unit may continue to move freely afterwards. Players may declare their movement has terminated at any time, and any remaining Cruising or Flanking Speed their unit has at that time is reduced to 0.*

- Hovers no longer Sideslip when Cruising.

    - *Units which make use of a Hover Mobility Base sideslip one additional hex when terminating Flanking movement, but not when terminating Cruising movement.*

- Facing updated to require 1 MS while moving to change direction. EN is still spent otherwise.

    - *Units may change Facing while moving by spending 1 Move Speed, and may change Facing by any number of hex sides.*

- Free Facing changes when landing on your end hex are no longer free.

    - *When a unit terminates movement or expends all of its Move Speed, its Facing remains fixed until it spends EN to move again or to specifically change Facing.*

- Added language to clarify what happens when an attack splits hexes perfectly.

    - *Whenever an attack falls perfectly on a line between two hexes the defending unit chooses which side of that line the attack uses.*

- Defence Values are no longer allowed to be hidden.

- Flanking now only grants +1 DV instead of +Mob.

- Fall Damage added (game sucks now).

- Task icons have a new pattern.

- Reworked jumping a little bit. Now specifies that it must be in a straight line and is otherwise treated as a normal move for the purposes of Facing. Also added a clause which requires a unit to have enough MS to jump before trying.
- RJs can no longer retain bonus Accuracy dice after Flanking.
    - *Bonus dice are lost when the Reverse-Joint generates Flanking Speed or when it starts its next turn.*
- Added a clause for determining order of Initiative when there is a tie.
    - *Units with equivalent Initiative roll 1d6 and the unit with the higher value decides the order.*
- Overheating now officially applies after the triggering action resolves.
- Overheating now kills all Locks you own or have been gifted.
- Gas-Cooled Generators now have more severe Overheating penalties.
    - *Heat dissipation is reduced by 3 to a minimum of 1*
    - *All Components take 2 Special damage, plus another 2 Special damage each time the Anvil generates Heat*
- Liquid-Cooled Generators take a little less damage when Overheating.
    - *The Generator takes 4 Special damage, plus another 4 Special damage at the end of the Anvil's turn*
- Errors are now only purgeable on a unit's active turn.
- Error: ACT now kinda matters.
    - *Reduce Arm Agility to -1 and treat Strength as 0 when conducting melee attacks with the Arm.*
- Locks are still being worked on. Ignore them for the time being.
- Equipment which is Size 2 or larger may no longer be Jettisoned.
- Cleaned up Shut Down Condition.
    - *This unit may not take actions, generate or spend EN, and all Components and Equipment go Offline. Units which are Shut Down during a Sortie may power up at the start of any Round and join the Initiative order at the start of the next Round.*
- Cleaned up Offline Condition.
    - *A Component or Equipment ceases to function and may not be used to take actions. Units must pay their Refresh Cost to clear a Component or piece of Equipment's Offline Condition. While Offline, Components and Equipment treat their EN Drain and EN Offset as 0.*

- Blind no longer imposes Occlusion, but still ruins your numbers.

- Added language clarifying how multiple Damage Steps are handled at once.
    - *Units which suffer multiple Damage Steps at once proceed in order of their Hit Locations according to the die — that is to say, from Component 1 to 6.*

- Added Weapon Functions reference. Will add more things from the Build Sheet as we go along.

- Added Patch Notes.