

METALLURGENT



0th Edition Ruleset



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“ You can stop, but never ever quit.”

Jeff Little

SPECIAL THANKS

Like many tabletop games, METALLURGENT began its life as wishful thinking. Noah and I spent years wanting for that one game which did *something* a little differently from the ones that already existed. We tried other systems. We tried making hacks. We tried bending and breaking other rulesets into ungainly shapes to fit what we wanted. Eventually, a close friend of ours revealed the simple truth: just do it ourselves.

We couldn't have done it alone. I'm a very lucky person to have Noah with me, and we're very lucky to have so many friends and acquaintances who are willing to give up their time, energy, and creative bandwidth to bring this weird little garage-built game to life. To be entirely honest, I never thought we would get through the trials of testing our first nascent rules, and now we've come as far as selling box sets. Imagine that!

The list below isn't exhaustive. There are other people – friends, co-workers, random internet denizens, and family members – who all made some meaningful difference to us during these past few years. To everyone who has stuck by us, argued with us, and encouraged us, thank you. Stay welded.

AiPrototype	HessianMerc	Pyronie
AkMosquito	Hiram F.	Ralf Ziegler
Alec Maverick Claravall	Jacob Peterson	ranger207
Alexander Rose	Jakub Z	Red
Antoine Meehan	James Onsrud	Red Azalea
AsimovWells	Jan van der Veer	Ricardo da Rocha
Big Sword	Jane Jackson	Servitor_2152
Birdflax	Joshua Brent	Shayakhmet "IceCream561" Bakimov
BoomsssBoom	Joshua Douglas Sites-Baker	Sherman
Bows3r	Joshua Mohr	SHOHO
Brandon "Cole Slaw" Malcom	Kenneth Henderson	Sidney Mattila
Bryan Turner	KreutzerXM	Sigma-7
Caleb Sprinkle	Kristy "Taeru" Falke	Sir bumbum
Calvin Scott	LarsDiamond	Sireniades
Camille Klonek	Leshy	Six
Caw626	Lilith	Snickett
ccFishsticks	Lukas Terrell	snipertoaster
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ChopperSniper	MechMaster111	Steven "The Postman" Dahms
Christopher Best	Menoshe	Storm Shoberg
DapperDan2012	Michael B Redel	Stupolevbear
Delta	Michael Delvecchio	tdk
DezTheDapper	Michael Little	Thatonegal
E-3 Gaidoz (Alexander Fiola)	Michael Senatore	The Little Family
E. Sultan	Naruga (Bastien Aufrere)	The Sprinkle Family
Edgar Gobo (Haon)	Nelttab	Tyler Jay "Onion" Amador
ENGINEER24	Nick Mooth	Unit 4545
Ethan Rudy	Onion	Vincent Miranda
Firecat	OnyxAnanke	Wayne Higgins
Gundurr	Parker Hamblin	Xaldin8
Henry "Lizard" Jones	Patricio Francisco Torre Fleming	
Henry F.	Philippe Langlois-Pedroso	

Welcome to the METALLURGENT 0th Edition Ruleset!

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:

- One player to run the game as the Coordinator.
- Three players to play the game as Anvil pilots.
- Up to six hours of time and plans to take a break about halfway through.
- A computer, access to the internet, and the ability to use a virtual tabletop environment.
- Access to the METALLURGENT online play sheets and/or METALLURGENT Discord.
- And, crucially, yourself (we couldn't do all of this 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 in all stages of play, from constructing an Anvil to assembling a Platoon of Combat Vehicles to the turn-by-turn choices made during combat. Because of this, some sessions may run much longer than you would expect, especially if new players are engaging with the system for the first time. Plan accordingly!

Please visit metallurgent.net or scan the QR code below to access the website from your mobile device.



DISCLAIMER

This rulebook is not sufficient on its own to play a game of METALLURGENT. You will need to visit the METALLURGENT Discord or metallurgent.net to obtain copies of the METALLURGENT Assembly Sheet, Pilot Specialisation Sheet, Force Builder, and other necessary game materials.

THIS RULEBOOK WILL BE SUPERSEDED AS THE GAME UNDERGOES REVISIONS AND ERRATA PASSES.

If you have questions, feedback, or bug reports, you can post them on the METALLURGENT Discord server or ping [@metallurgent](https://twitter.com/metallurgent) on X (formerly known as Twitter).

From all hands at Proving Grounds Publishing, thank you.

Now get out there and mash some metal!

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 vast industrial might as weapons of the modern age. No longer was war waged solely with shot and shell; speech, poise, and confidence made for grander weapons than any nuclear arm. 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 named this competition "The Space Race." Hindsight would fondly recall it as a period of great economic stability and perpetual innovation.

The vastness of all the treasure on Earth, the great powers declared, was a puddle 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 launched satellite, a new star glittered in the heavens above. First a hundred, then a thousand, then before long the great black ocean shone brightly with stars young and old. A few of these were tasked with shining their light upon Earth's sisters, and the great powers continued their competition in earnest, racing to claim victory anywhere they could reach out and touch 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. Temporary stays became permanent pursuits. Permanency became residency, and so on. From Tranquility grew the nascent Lunar community; scientists and engineers at first, then farmers, teachers, businessmen, and philosophers all joined the exploding Lunar society. These first pioneers shirked their nationalistic fervour in favour of a new label: Selenite.

The Lunar economy blossomed, and as the new millennium approached, a new financial standard threatened to overtake currencies bound by gravity – the Mona, the Silver Standard, was welcomed, and the great powers quietly applauded this new evolution.

Further still we reached. 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 tolerate a planet hostile to its presence.

These processes streamed through Luna, legitimising the Selenites' desire to escape the clutches of worldly governments. The great powers understood that their competition had a new player. The earthly hemispheres never thought their greatest threat would originate from hundreds of thousands of miles away. There was little they could do, in the end. Legislation passed with universal accord. Space would be neutral. Luna would have no weapons but their speech, poise, and confidence. And all the while, the hundred-metre-tall obelisks of light continued to ferry stars heavenward.

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



As the Selenites toiled, the great powers tended to their worldly concerns. They promised peace and prosperity, 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. The great powers continued their game, daring one another to do better. Nationalistic optimism blossomed in the fertile minds of their peoples, reaching a fever pitch as mankind was catapulted to greater and greater heights.

While we 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 their play-pretend peace. 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, Brazil, Canada, Guatemala, Mexico, and Venezuela signed the Pan-American Accords, thus forming the Pan-American Alliance. These countries, bonded through bloodshed against the powers of Europe, cast an ironclad image of a future dominated by the American continents. 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 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 no one nation or alliance had a clear vision, but they all had the power to realise it. But even still...

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



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 fourteen degree 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 1974, in record-breaking heat, that the Anvil took its first true steps.

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. A major advantage held by the LEVI was its Articulated Networked Vehicle Linkage system – ANVL. This system, pounded into shape to function with terrestrial vehicles, gave birth to the Anvil.

Almost before the Anvil could fully walk, it ran. The brainchild of those working for the nascent Future Armor Research Command, its first 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.

Titanium, harvested by Selenites, came down from space like manna from the wellspring of heaven, and 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. If space now belonged to the Selenites, we reasoned, Earth could at least still belong to us.

It would not be until the 1990s when Anvils proliferated to the point of near-mundanity. Corporate giants wheeled around the Anvil like horses on 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, 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, something launched from the heart of 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.



THE SILVER RULES

METALLURGENT emerged from its development cycle with its own set of unique gameplay quirks. These quirks, called Silver Rules, are ironclad edicts which can never be overruled, helping maintain cohesion and reduce confusion in what ultimately became a fairly complex system. They are as follows:

CAPITALS ARE CRUCIAL

Some words in METALLURGENT are capitalised. These words are Terms, and are used to express a specific game mechanic, element, or interaction. For instance, the word “gear” merely refers to a toothed wheel, but the word “Gear” specifically refers to the weapons and equipment a Unit can carry in METALLURGENT.

SPECIFIC TRUMPS GENERAL

General rules apply broadly to all entities to which they are relevant, while specific rules apply to more specialised situations. For instance, a general rule might state that “Secondary Weapons terminate movement when Activated,” but a specific rule for Quadruped Anvils states, “This Unit does not terminate movement upon Activating Secondary Weapons.” In such cases, the specific rule overrules the general one.

ALWAYS ROUND UP

Whenever a value is halved or otherwise reduced to a value which is not an integer, that value is rounded up to the nearest integer. In cases where 1 is halved or reduced to a nonzero value, it remains 1. For instance, if half of 13 is 6.5, the resulting value would be 7.

MEET OR BEAT

Actions which cast dice against a target number (such as an Anvil’s Defence Value) succeed if the number of successes equates or surpasses the target number’s value. For instance, an Anvil attacking another Anvil with a Defence Value of 4 must roll 4 or more successes during that attack.

INFORMATION IS AMMUNITION

Values which must be rolled against (such as Defence Values), can never be hidden, even if the target’s information is otherwise a mystery.

YOU ARE THE MACHINE

During a Sortie or other combat scenarios where you are piloting or otherwise crewing a vehicle (such as an Anvil), effects which refer to “you” refer to your vehicle, not your character, unless explicitly specified.

YOU ARE NOT YOUR OWN ALLY

Your pilot and your Anvil are not eligible targets for effects which mention “allies” as targets for those effects. To gain the benefit of the effect in question, the rule must state “you and an ally” or equivalent language.

I SEE YOU, YOU SEE ME

Line of Sight is always mutual. As a result, all instances where Line of Sight is drawn along a shared hex border treat that Line of Sight as being unobstructed.

DEFENDER’S CHOICE

Whenever an effect makes a direct line to a target (such as an attack’s Line of Fire), and that line is drawn along a shared hex border, the target may choose which side of the shared border that effect falls into.

ORDER OF OPERATIONS

Whenever multiple mathematical operations apply to a value at the same time, resolve any multiplicative effects before resolving addition and subtraction. For instance, halve Heat before applying any flat reductions.

QUICK REFERENCE

This section is designed for people already familiar with the rules. You are encouraged to read the full ruleset first, then refer to this section as necessary.

DEPLOYMENT

- **0-2** Initiative deploys in the GREEN DZ.
- **3-5** Initiative deploys in the BLUE or GREEN DZ.
- **6-8** Initiative deploys in the PURPLE, BLUE, or GREEN DZ.
- **9+** Initiative deploys anywhere as long as it is at least 6 hexes away from all visible hostile units.
- HIDDEN Units and Platoons always deploy last.
- Units and Platoons deploy according to their Initiative, not where they end up in the Initiative order.

INITIATIVE

- Initiative is ordered from highest to lowest, where highest acts first in a Round.
- No more than two Units or Platoons belonging to the same team may act after one another.
- If Initiatives are tied between opposing Units or Platoons, cast 1d6. The winner chooses to keep their Unit or Platoon in place or move it to the next lowest legal position.
- Tally Initiative before the Round starts; changes to Initiative take place between Rounds.

UPKEEP *(Before Turn)*

- You may Power Down (become SHUTDOWN) or Power Up (remove SHUTDOWN).
- You gain EN equal to EN Output.
- You dissipate Heat equal to Cooling, then gain Heat from all relevant sources.
- You decide the order of effects which specify “at the start of your Turn” and resolve them.
- You gain Move Speed equal to Cruising Speed, up to your maximum Cruising Speed.
- You may activate or deactivate Sustained Gear, then do the same for Sustained Skills.

EMERGENCY UPKEEP *(After Turn – always happens; if you don’t qualify for a step, skip it)*

- You gain EN equal to Critical Output.
- You gain EN equal to EN Output if you spent 0 EN during your Turn.
- You dissipate Heat equal to Cooling if you generated 0 Heat during your Turn.
- You may Clear 1 Error or Condition by paying its cost. You may repeat this step as necessary.
- You decide the order of effects which specify “at the end of your Turn” and resolve them.
- You lose any remaining Move Speed which was not spent during your Turn.

CASTING DICE

- Mettle is 6d6 and makes up your base dice pool, which you always use when casting dice.
- Accuracy can be positive or negative and is added to or subtracted from Mettle.
- Par is the number a d6 must meet or beat to achieve a success (6s count as two successes).
- DV is the number of successes your dice pool must show in total to Hit your target.

LINE OF SIGHT

- First, determine the Heights of each entity and obstacle involved along the Line of Fire.
- If the obstacle’s Height is equal to or greater than both entities’ Heights, LOS is blocked.
- If the obstacle’s Height is greater than an entity’s Height, and adjacent to it, LOS is blocked.

ATTACK ACTIVATION

DECLARE ATTACK

- Choose a target.
- Tally up the DV of the chosen target.
- Choose the Gear or Component to use.
 - Ensure the attack is valid and within Constraints.
 - Select the Gear's Payload, if applicable.
 - Determine whether the Activation will be a direct attack or indirect attack.
- Tally up your Mettle, Accuracy, and Par.
- The target may change Facing, if able.

SPEND RESOURCES

- Activate the Gear or Component by paying its cost.
 - Reduce the Gear's Magazine or Uses by the number of attempted Hits or effects.
- Generate any Heat caused by this Activation.

ATTEMPT HIT

- Cast dice based on your Mettle, Accuracy, and Par against your target's DV.
 - On a Hit, proceed to Hit Location; on a miss, proceed to Resolution.
 - You automatically Hit if the target is the hex you occupy, or if the target is an adjacent Object or Terrain.

ROLL LOCATION

- Determine Hit Location(s) by rolling on the target's Hit Location table.
- The target may BID based on the result of the Hit Location table roll.
- Assign damage to the Component(s) named in the Hit Location(s).
 - Damage reductions and additions are tallied before assigning AP damage.
 - Resolve secondary damage effects and Payload effects, if applicable.
 - If damage is reduced to 0, the target counts as having taken no damage.

RESOLVE ATTACK

- Resolve attack.
 - Roll Drift if the attack missed prior to BIDs and involved an Area Effect Payload.
- Begin Damage Step resolution, if applicable.
- Begin Overheat resolution, if applicable.

INDIRECT FIRE

- Indirect attacks double weapon Range, prevent attacks with that weapon in normal Range, and draw Line of Fire above all obstacles except ones adjacent to the attacker and defender
- If the target is in LOS, the DV is the target's DV
- If the target is not in LOS, add 2 to the target's DV
- If the weapon does not have the Artillery Function, increase Par by 1

MISSED ATTACKS AND DRIFT

- Attacks which include an Area Effect Payload roll Drift; all other attacks do not.
 - Cast 1d6 for the direction; the attack travels hexes equal to the difference between the successes shown and the target's DV.
- Missed attacks against targets benefiting from Cover degrade all Cover which intercepts the Line of Fire between attacker and defender.
 - Indirect attacks only degrade Cover adjacent to the attacker and defender.

HITTING TARGETS BEYOND WEAPON RANGE

- KE damage is halved when damaging a target beyond listed weapon Range.
- CE damage is reduced by 5 when damaging a target beyond listed weapon Range.
- TE damage is reduced to 0 when damaging a target beyond listed weapon Range.

HITTING TARGETS BEYOND FCS RANGE

- Attacks against targets which are outside of FCS Outer Range raise Par by 1.

BALLISTIC, ENERGETIC, AND MELEE WEAPONS

- Ballistic weapons may make indirect attacks and are affected by Wind.
- Energetic weapons may not make indirect attacks and are affected by Precipitation.
- Melee weapons may not make indirect attacks, reduce Par by 1, and ignore the attacker's Flanking malus.

BIDS

- Block may be performed for adjacent entities getting Hit (you are always in Constraints).
- Intercept applies to a single instance of incoming damage (independent of Hits).
- Dodge DV which is equal to or 1 lesser than the Hit value results in half damage for that Hit.
- Only one BID action per defender can be applied to an incoming Activation.
 - Certain Gear may allow additional BID actions per Activation; check the Gear rules for specific instances which override general rules.

DAMAGE STEP RESOLUTION

- Damage Steps are always resolved in order of where the Component shows up on a d6.
- Critical effects from Damage Steps which influence another Component happen after all current Damage Steps have been resolved.
- If a Unit would be Disabled, Destroyed, or otherwise knocked out, resolve all outstanding Damage Steps, as certain effects may influence salvageable parts or cause explosions.

WEAPON FUNCTIONS

- Weapons with the Burst Function may only attempt a number of Hits equal to the remaining ammunition in the Magazine, if the remaining ammunition is lesser than the Burst value (e.g., a Burst 3 weapon with 2 ammunition left makes 2 Hits instead of 3). Resources are spent as normal.
- Weapons with the Bulky Function may be Activated even if they have 1 ammunition left in the Magazine. Resources are spent as normal.
- Weapons with the Projector and Linear Functions must be able to draw LOS to their target to damage it.
 - Projector and Linear weapons must attack all possible targets within their area, and their areas cannot be truncated except by obstructions which block LOS.
- Weapons with the Melee Function which have a Range greater than 1 still make Melee attacks and, therefore, cannot indirectly attack with such Activations.
- Weapons may not obtain duplicate Functions.

THE NUTS AND BOLTS



"The Anvil is a shape-shifter," to quote Laguna Proving Ground commander Colonel Carson Clay. Most other combat vehicles can be described in simple requirements terms (mobile firepower, indirect fires) or by way of doctrinal employment (tank, gunship, etc.). This has never been sufficient for the complexity exhibited by the Anvil's revolutionary modularity. What began the day as a scouting vehicle mounted to an air cushion chassis may end the day as an assault vehicle mounted to a pair of legs. No other vehicle, currently employed or proposed, exhibits this unique versatility, which gives the Anvil its incredible prowess and combat presence regardless of origin or task.

The structure of the Anvil is composed of six distinct compartmentalized pieces known as "Components." Each Component of the Anvil is designed as a "plug-and-play" system, networked to a pair of central processors which gathers position, velocity, orientation, and an estimation of damage from all joined Components. Anvils always have six Components: Core, Mobility Base, Left and Right Arms, Generator, and Electronics; the Fire Control System is a Subcomponent of the Electronics and, while vital to the operation of the Anvil, is not counted as a Component for the purposes of bookkeeping. The compartmentalized nature of these Components allows Anvils to mix and match different types as well as sustain injurious damage which can cripple vehicles with more heavily integrated systems.

Component architecture varies from one design to the next, but some general principles apply. Each Component, be it Pan-American, European, or Soviet, uses a hollow-boned Lunar titanium alloy frame (with varying proprietary alloys in play), through which sensor webs and wiring harnesses are interspersed. Spokes of this alloy, doped with martensitic material, are arranged helically within each bone, providing remarkable durability and a shape-memory effect, not unlike that used in certain spacecraft applications. The most common alloy is known as Skytanium, and while its specific grade may differ slightly from one Anvil species to another, its profound capabilities remain universal.

This semi-rigid skeletal structure provides the Anvil with a robust yet lightweight foundation onto which armour and modular systems are mounted. Additionally, the space provided within the bones offers the Anvil unparalleled thermal coolant conduction, saving both weight and energy. Some Anvil Components (namely Arms with integrated weaponry) are semi-monocoque in nature, which provides them with heightened load tolerance to sustain the weight and recoil of large caliber weapons fire.

The sensory system which permeates the Anvil's skeleton provides near-real-time readouts of the Anvil's estimated combat health. Remaining armour viability, internal performance, temperature, and even external air quality is quantified and fed to the pilot's heads-up display (HUD). Refresh rates vary depending on the number of attached systems and the internal processor's speed. Pilots may generally expect updates every 1.35 seconds for American designs with their regular loadouts, and up to 4.11 seconds for Soviet V-90 series Anvils. Redundancies built into the sensory system allow the Anvil to absorb damage without losing its ability to self-diagnose, though some models may have greater or fewer redundancies built in (see App. D, Section 3: V90-1 CBRN Trial Datasheet).

Anvil-mountable equipment systems (AMES) may be plugged into any hardpoint available on any Component. As of this report, only Core and Arm Components have been designed to offer this hardpoint capability. The sturdy AMES plug provides a basic electrical and thermal conduit to the mounted system. Energy supply through a Component has a maximum throughput; a Component with three mounting plugs may only be able to support two unique systems at any given time. In addition to this restriction, some AMES draw additional power, even if they only require one plug, thereby excluding the use of additional systems on that Component (see App. B, Table 1: AMES Power Draw). Nevertheless, many Anvil Components are designed to handle multiple unique

systems. Those hardpoints which are not used are recommended to be shuttered or otherwise protected to prevent buildup of foreign object debris or coolant leakage. It should be noted that, while the Core Component determines the available throughput of energy and coolant, "Core-mounted" AMES are instead physically mounted to the Generator housing.

All Anvils are equipped with gyroscopic stabilisation systems mounted under the floor of the cockpit. The assembly of eccentric flywheels and bearings, collectively known as the Stabilisation, Weight and Gravity (SWAG) system, allows the Anvil to throw its center of gravity (CG) out of constraints to perform certain actions. For driving Anvils, this intentional imbalance is typically barely noticed by pilots. Striding Anvils, on the other hand, would topple over were it not for their own built-in gyroscopes, which compensate further for intentional (and unintentional) imbalances to the platform during combat manoeuvres. It is this inherent instability which gives bipedal mobility base designs their enhanced agility compared to inverse or tetrapod designs (see App. E Section 2: Copperhead Terrain Course Data).

All information is condensed and fed to the pilot through audio/visual alerts and notices, as well as via heads-up display (HUD). Each Anvil is outfitted with a main combat computing program, independent of its fire control or acquisition systems, which intelligently sifts through data to present the most important aspects to a pilot in as short a time as possible. This system, known as the Syntactic Target Entity Nomenclature Omnibus (STENO), is designed to present information in a digestible format for pilots in combat. In addition to this data reduction, STENO also optically matches vehicles in-theatre and compares them to a catalogue of known and supposed units. This readout is then provided to the pilot via Anvil Diagnostic Display (ADD) and a recommendation of force is made. Pilots may customise STENO to provide them with more or less information, based on personal preference or adversary. For additional information regarding the development of STENO, see World Aerospace Standards 1971, WAS-TR-2404 Nomenclature and Conventions for Space Travel.

Recent advancements in the automation and computing industries have allowed Anvil pilots to undertake additional tasks while in combat, however task saturation and fatigue are very real concerns. STENO, and by extension, the ADD, are updated regularly to eliminate obsolete target and weapon handling messages and reduce overall cognitive load on the singular pilot. Updates to the SWAG system are of particular importance, as nuanced understandings of how an Anvil operates under certain weight and balance conditions may be lost. As a result, SWAG updates are voluntary for Pan-American pilots, and much effort has been spent ensuring backwards-compatibility for modern Anvil Component design.

The proliferation of the Anvil, its constituent elements, and training material has resulted in an unprecedented global growth in combat mech forces across the entire world. Major and minor armies across the globe frequently make use of General Production (GP) and Special Production (SP) mech units, but the Anvil remains both spearhead and anchor for all modern military forces. Due to global agreements regarding international export and arms trade, many seemingly proprietary technologies have been distributed to neutral and non-aligned actors. This document does not discuss the finer points of historical deals involving the Anvil or industrial espionage, however it is worth noting that, as of this report, nearly every country on Earth operates at least one Anvil Chain, and is more than capable of hiring mercenaries.

This report provides further clarification and information regarding the Anvil and its related systems, their interoperability, and cross-compatibility between domestic and foreign elements. See Apps. M through U for specific test and field performance data.

– The Anvil, an Overview (excerpt), 1996, courtesy of FARCOM, Laguna Proving Ground



PLAYERS

When playing a game of METALLURGENT, human beings generally fall into one of two categories: **player** or **Coordinator**. Players, obviously, play the game and are in control of at least one entity. Coordinators, on the other hand, organise the game, distribute game materials, run the game, and resolve rules disputes during the game.

Coordinators are encouraged to be creative with their game designs. If you are a Coordinator and you wish to make something happen in a game which does not have rules outlined in this document (such as a map suddenly flooding or a satellite falling from orbit), you are empowered to make that happen.

METALLURGENT features a lot of hidden information, including instances where information is hidden from the Coordinator (such as when deploying Mines). Unless otherwise specified, hidden information is privileged and does not need to be revealed when requested.

ENTITIES

There are three types of entities in METALLURGENT: **Units**, **Objects**, and **Terrain**.

Units are controllable entities which take actions during the course of a game (such as moving and shooting). **Objects** are usually static entities which do not take actions, but may automatically generate an effect based on the actions of a Unit or Terrain (such as a Mine exploding when a Unit steps on it). **Terrain** refers to hexes themselves and elements specific to that hex (such as Woods or Water).

Units and Objects typically occupy a single hex. Two or more Units may not occupy the same hex unless they are separated by Altitude. Up to six Objects may occupy a single hex unless otherwise stated.

Terrain occupies a hex as well; more precisely, *Terrain is the hex*. Generally, no more than two Terrain types will be present in a single hex, but there is no hard limit. Terrain can be influenced by Unit and Object activity, and may turn into different Terrain as a result.

For instance, an Anvil using a Flamethrower on a patch of Woods hexes will add Burning as a Terrain type to those Woods before the flames quickly burn them down and convert the hexes into Rough Terrain.

Units, Objects, and some Terrain always have a Height, measured in Levels, while Terrain may also have an Elevation. For more information on these traits, see *THE BATTLEFIELD – THE BATTLEMAP*.

DICE

POOLS AND PAR

METALLURGENT uses a dice pool system consisting of multiple six-sided dice, which are cast in **pools**. Each die (d6) in a pool presents either a **failure** or a **success** depending on the **Par**.

A **Par** of 4 means a d6 shows a failure on results of 1, 2, and 3, and a success on results of 4, 5, and 6. Regardless of Par, **results of 6 count as two successes**.

Par can never be lowered below 2 and can never be raised above 6.

METTLE AND ACCURACY

Dice pools are largely made up of Unit's **Mettle**. Mettle is usually derived from a Unit's pilot or crew, and is not only a measure of skill at arms, but confidence, willpower and the primal desire to survive.

Units have a base Mettle of 6, which means they cast 6d6 whenever they take an action that requires a dice pool. If a Unit has a base Mettle value other than 6, it will be noted on that Unit's readout.

Wounds, damage, and fatigue can degrade Mettle much like gunfire degrades armour. If a Unit's Mettle is ever reduced to 0, the pilot or crew has been incapacitated and is likely dead.

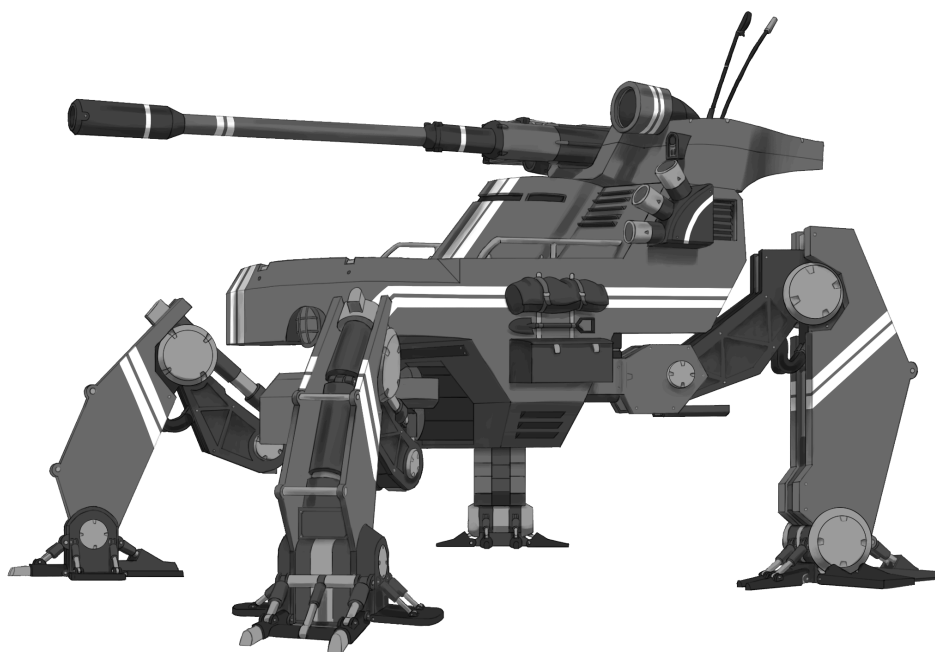
Dice pools are also affected by **Accuracy**. Skills, keywords, and environmental effects can affect Accuracy, and all weapons have an Accuracy value ranging between positive and negative. Accuracy adds its value to a Unit's Mettle, or, in the case of negative Accuracy, subtracts from it. Once all sources of Accuracy have been tallied, the resulting value is the number of dice cast in that pool.

DEFENCE VALUE

When dice are cast against a target, that target's **Defence Value [DV]** comes into play. A target's DV is the number of successes an opposed dice pool must show for a Hit to be declared.

Units and Objects often have unique DVs, while Terrain always has 4 DV. Structures, a commonly encountered type of Object, always have 2 DV.

For instance, a tank attacks a brick wall with its main cannon. This weapon has no Accuracy and does not change Par, so the dice are cast at 6d6 Par 4. The brick wall is an Object with 2 DV. Therefore, the tank needs only two successes to 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 counts as two successes. This meets the DV of 2 and the tank scores a Hit.



Ragno B1 Sniper GP

RESOURCES

ENERGY

All Units in METALLURGENT use **Energy [EN]** to fire weapons, dodge attacks, purge electronic malfunctions, and so on.

Units possess two important EN-related stats: **EN Output** and **EN Capacity**.

EN Output defines how much EN a Unit regenerates during the start of its Turn as part of the Upkeep step, while **EN Capacity** defines how much EN a Unit can hold onto at any given time. If a Unit generates more EN than it can hold, the excess EN is lost.

Units may not reduce their EN Output or EN Capacity to a value below 0.

Most actions will deplete a Unit's currently-held EN. There is no penalty for being at 0 EN and EN can never go to a negative value.

EN is allocated in one of three ways: **EN Cost**, **EN Drain**, and **EN 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. Sources of **EN Offset** reduce the Unit's EN Capacity by the Offset's value.

EN spent as part of an EN Cost is immediate and may not happen if the amount of EN the Unit currently has is less than the Cost's value. EN Drain and EN Offset reduce their respective stats while active and cease affecting those stats when deactivated (such as turning a Radar on or off). Whenever a source of EN Drain or EN Offset is physically removed from a Unit or Destroyed, its EN Drain or EN Offset no longer affects the Unit in question.

Units always begin a Sortie with their EN set to full.

HEAT

While all Units must use EN to accomplish actions, special units, like Anvils, also contend with **Heat**.

Activating weapons, burning through electronic interference, or moving through Burning hexes all generate **Heat**. Unlike EN, Heat has no Drain or Offset equivalent. Heat is simply added and subtracted to a Unit as its internal temperature teeters towards dangerous levels.

Heat-tracking Units possess one critically important Heat-related stat: **Heat Tolerance**.

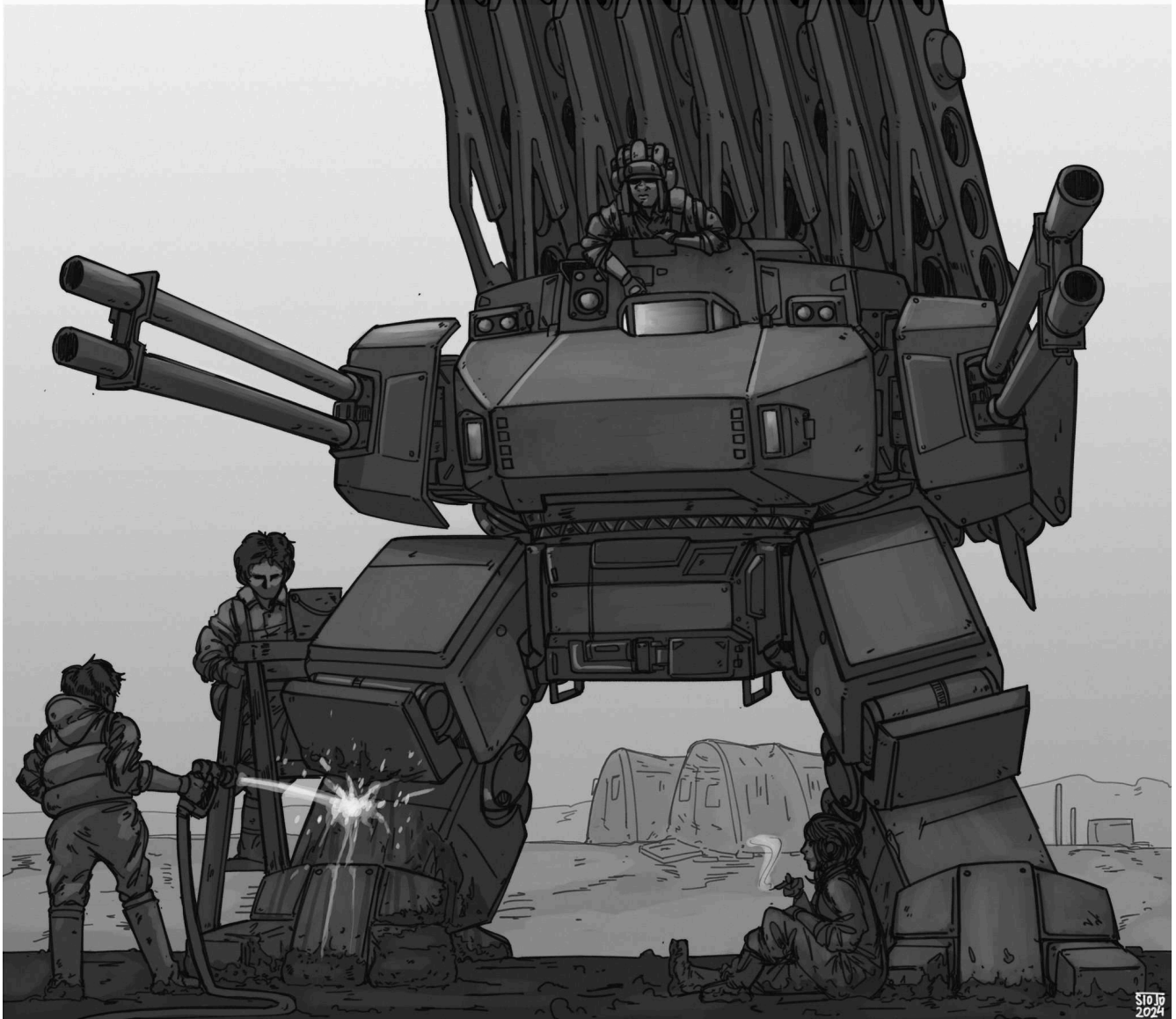
Heat Tolerance defines how much Heat a Unit can accrue before Overheating. If a Unit goes over its Heat Tolerance, it Overheats, which can have dire consequences for machine and man alike. Additionally, in all cases, a Unit cannot have more Heat than twice its Heat Tolerance. Any Heat obtained beyond twice a Unit's Heat Tolerance is reduced to 0.

For instance, a Copperhead Anvil has 30 Heat Tolerance and currently has 58 Heat. It takes 10 Heat from a hostile source. 2 Heat is accumulated, setting it to 60 Heat, and the remaining 8 vanishes. Any additional Heat it takes is reduced to 0.

Heat-tracking Units always begin a Sortie with their Heat set to 0.

For more information on Overheating and the ways to combat it, see *THE ANVIL – CONSTRUCTION AND ASSEMBLAGE*.

Units which do not track Heat (such as tanks and humvees) are ignorant of Heat and Overheating. However, this does not mean they're fireproof; effects which generate Heat on such vehicles instead deal direct damage to them.



MA-93A Magar A, in the service of the Romanian Land Forces 3rd Mountain Brigade. The development of Lunar Engineering Vehicles (LEVs and LEVIs) propagated a massive glut of scientific breakthroughs in the realms of electric motors, battery energy density, and gyroscopic stabilisation. The Great Powers weren't the only earthbound entities to benefit from these extraterrestrial leaps in technology– many countries rapidly adopted novel mech combat units into their armies and industrial sectors, to the point of mundanity. By Y2K, such impressive-looking vehicles as the Magar had become “just another tool in the box.”

COMBAT TIME

Heavy metal combat in METALLURGENT is measured with two metrics: the immediate blow-by-blow exchange between opposing forces, measured in **Turns** and **Rounds** (tactical time), and the larger-scale strategic organisation of these exchanges, divided into **Sorties** and **Operations** (strategic time).

TACTICAL TIME

The **Turn** is the smallest measurement of time when playing METALLURGENT on the tactical layer. Sortie participants (such as Units and Platoons), are added to the Turn order according to their Initiative. Turns resolve in order of highest Initiative to lowest.

The **Round** contains all the individual sequential Turns of active participants in combat. All Units resolve their Turns before a Round ends and a new Round begins. New Rounds start until one team meets its victory conditions, signalling the end of the Sortie.

A single Round lasts 60 seconds in game time, but may last up to an hour in real-life time.

STRATEGIC TIME

Sorties are combat sessions with **Objectives** for all participating teams. Typically, one Objective (known as the Main Objective) will include a victory condition, while others are secondary in nature. When one team successfully accomplishes their victory condition Objective, the Sortie ends.

Operations are usually a series of linked Sorties connected through narrative and mechanical means. Operations end when the Operation's overarching goal is completed.

INITIATIVE

All Units in METALLURGENT act in order of their **Initiative**. Initiative is a measure of a Unit's ability to act proactively or reactively. It has less to do with a pilot's or crew's reaction time, and more to do with how easy it is to engage a vehicle's specific combat functions.

At the start of the Sortie, and at the start of each Round, an Initiative order is created. The Initiative order features all Units or Platoons active at the start of the Sortie. Units and Platoons which deploy later, or which are HIDDEN, do not join the Initiative order until they appear on the Battlemat. Initiative is ordered from highest to lowest, where highest acts first in a Round.

Initiative is fixed during a Round, but before the next Round starts, ensure that any changes to the Initiative order have been reflected (such as reinforcements showing up or removing Platoons which have been completely knocked out).

No more than two Units or Platoons belonging to the same team may act after one another. This may result in higher Initiative Units or Platoons being knocked down in the Initiative order; when this happens, the controlling player or Coordinator chooses which of their Units or Platoons to send lower.

If two or more Units or Platoons from opposing teams are tied in Initiative, their controllers cast 1d6. Whoever ends up with the highest result may choose whether to keep or leave their spot. Controllers of Units or Platoons may freely give up their spot to avoid casting dice in this instance, but may not give up spots if no tie is involved.

UPKEEP AND EMERGENCY UPKEEP

The start of a Unit's Turn marks one of the most important moments in combat. A number of resources (such as EN and Heat), are handled during this phase known as **Upkeep**.

During its **Upkeep**, a Unit performs the following actions, in order, unless they do not apply:

- You may Power Down (become SHUTDOWN) or Power Up (remove SHUTDOWN).
- You gain EN equal to EN Output.
- You dissipate Heat equal to Cooling, then gain Heat from all relevant sources.
- You decide the order of effects which specify "at the start of your Turn" and resolve them.
- You gain Move Speed equal to Cruising Speed, up to your maximum Cruising Speed.
- You may activate or deactivate Sustained Gear, then do the same for Sustained Skills.

All Units have an **Emergency Upkeep** at the end of their Turn. Units which have withdrawn from direct combat can receive additional benefits during this phase. This phase allows the Unit to recoup resources in a pinch, or clear hazardous effects from Errors and Conditions.

During **Emergency Upkeep**, a Unit performs the following actions, in order, unless they do not apply:

- You gain EN equal to Critical Output.
- You gain EN equal to EN Output if you spent 0 EN during your Turn.
- You dissipate Heat equal to Cooling if you generated 0 Heat during your Turn.
- You may Clear 1 Error or Condition by paying its cost. You may repeat this step as necessary.
- You decide the order of effects which specify "at the end of your Turn" and resolve them.
- You lose any remaining Move Speed which was not spent during your Turn.

Upkeep and Emergency Upkeep happen only once per Round for each Unit, but certain effects may allow Units to receive these benefits additional times.



KM-2 Aurochs Special Operations SP, affiliation unknown

SORTIE TEMPO

When a Sortie begins, proceed through the following phases in order:

SORTIE START

When the Sortie begins, all Units and Platoons are placed within their appropriate Deployment Zones. Units and Objects which are HIDDEN are placed last. When entities are placed, their controller may choose any Facing for them, and any special deployment effects (such as arriving to the battlefield with Flanking movement) are applied at this time. Once all entities have been placed and their controllers are satisfied, the first Round begins.

ROUND START

When the Round begins, Round-based effects which specify “at the start of the Round” are resolved before any Units or Platoons take a Turn. Reinforcements always arrive at the start of a Round, and do so before any other start of Round effects take place. This includes the refactoring of Initiative, if necessary. The order of resolution thereafter is up to the Coordinator or the player controlling the effect. Once all start of Round effects have been resolved, the highest Initiative Unit or Platoon begins its Turn.

TURN START (*Upkeep*)

Before your Turn begins, you first resolve your Upkeep. This will give you your EN back, allow you to cool your Heat, mark off any resolutions based on the start of your Turn, and allow you to activate or deactivate Sustained Gear (such as CIWSes or APUs) or Sustained Skills. Once you are satisfied with your Upkeep choices, you declare your Upkeep to be over, and your Turn begins.

TURN PROCEEDS

Once your Upkeep has concluded, you are free to spend your Move Speed to move around the Battlemat. You can also spend EN to Activate weapons, equipment, and Skills, and you can spend other resources to pay for other actions (such as Climbing a steep cliffside or clearing certain Conditions). Once you are satisfied with your movement and any actions you have or have not taken, you declare your Turn to be over, and your Emergency Upkeep phase begins.

TURN END (*Emergency Upkeep*)

Once your Turn has concluded, you resolve your Emergency Upkeep. You always proceed through Emergency Upkeep; skip any steps for which you do not qualify. For instance, if you generated no Heat during your Turn, you may cool off again during Emergency Upkeep, otherwise, skip that step. You may clear Errors and Conditions during this phase too. Once you are satisfied with your Emergency Upkeep, you declare your Turn to be over, and you pass the active Turn to the next Unit or Platoon in the Initiative order.

ROUND END

Once all Turns have been concluded, and the final Unit or Platoon in the Initiative order has acted, the Round ends. Round-based effects which specify “at the end of the Round” are resolved before the next Round begins. Victory conditions are checked at the end of the Round before any other effects are resolved. The order of resolution thereafter is up to the Coordinator or the player controlling the effect. Once all end of Round effects have been resolved, the next Round begins.

SORTIE END

The Sortie ends when one team has accomplished their victory conditions.

COMBAT ACTION

ACTION SPEED

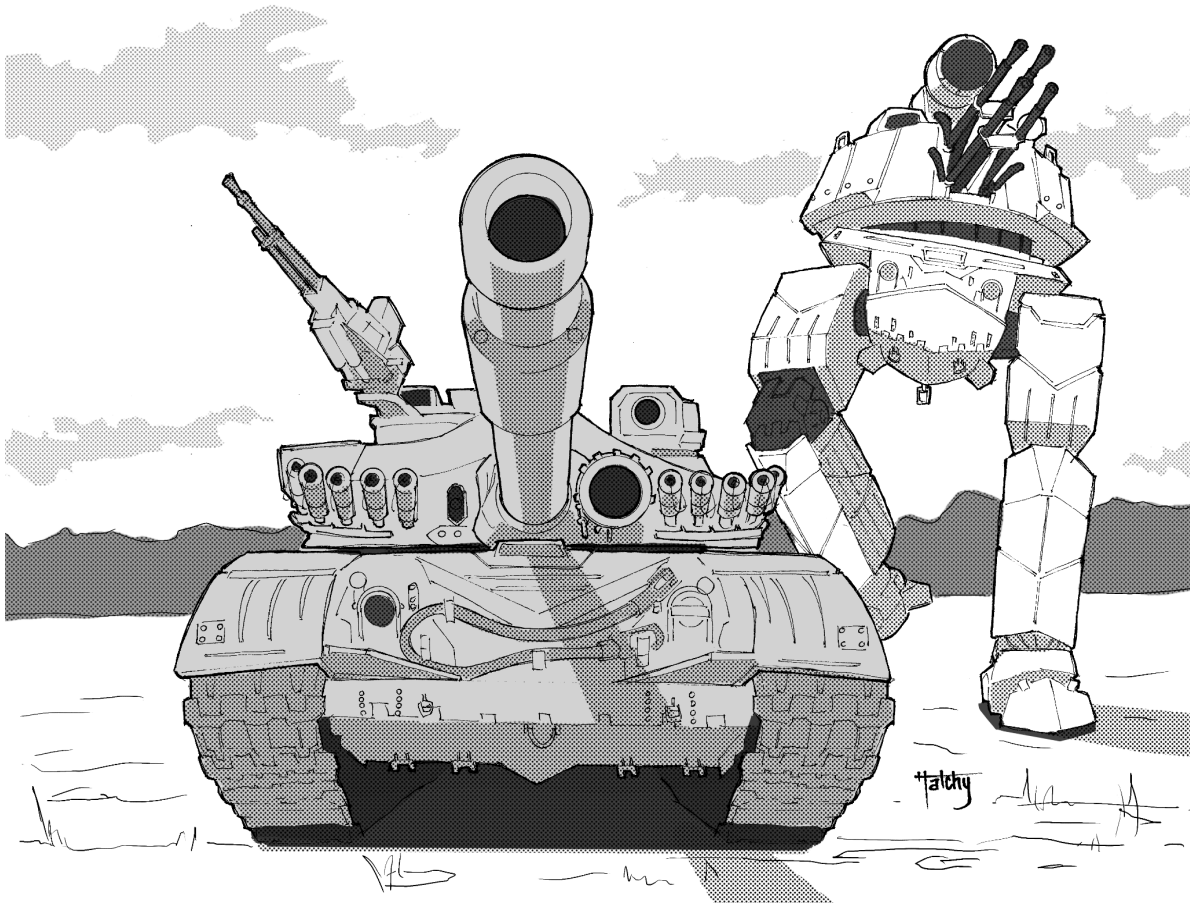
Units and Objects may have actions, abilities, or triggered responses which happen at a certain “speed,” or priority. These actions are divided into two categories: **fixed** and **urgent**.

Fixed actions may only be performed during a Unit’s Turn, or, in the case of automatic effects which originate from Objects, during a specified time during a Turn or Round.

Most actions in METALLURGENT fall into this category. If an action does not specify whether it is fixed or urgent, assume it is fixed.

Urgent actions may be performed any time their trigger is fulfilled, or, if they have no trigger, at any time, including during Activations or while Units are moving.

Urgent actions are usually rare. If you miss the trigger or timing for an urgent action, you will be unable to take that action.



T-64 tank and ZSU-30-4 Zeya, Kyrgyzstan 1994. The advent of mech units resulted in a mass resurgence of combined arms doctrine across many professional and private militaries.

ATTACKS AND ACTIVATIONS

Attacks are broken down into five sequential steps: **Declare Attack**, **Spend Resources**, **Attempt Hit**, **Roll Location**, and **Resolve Attack**. All of these aspects comprise a single attack, which largely revolves around the Activation. A single Activation can generate multiple Hits or Hit Locations, depending on the Function of the weapon used and its Payload.

The attack steps are as follows:

DECLARE ATTACK

- Choose a target.
- Tally up the DV of the chosen target.
- Choose the Gear or Component to use.
 - Ensure the attack is valid and within Constraints.
 - Select the Gear's Payload, if applicable.
 - Determine whether the Activation will be a direct attack or indirect attack.
- Tally up your Mettle, Accuracy, and Par.
- The target may change Facing, if able.

SPEND RESOURCES

- Activate the Gear or Component by paying its cost.
 - Reduce the Gear's Magazine or Uses by the number of attempted Hits or effects.
- Generate any Heat caused by this Activation.

ATTEMPT HIT

- Cast dice based on your Mettle, Accuracy, and Par against your target's DV.
 - On a Hit, proceed to Hit Location; on a miss, proceed to Resolution.
 - You automatically Hit if the target is the hex you occupy, or if the target is an adjacent Object or Terrain.

ROLL LOCATION

- Determine Hit Location(s) by rolling on the target's Hit Location table.
- The target may BID based on the result of the Hit Location table roll.
- Assign damage to the Component(s) named in the Hit Location(s).
 - Damage reductions and additions are tallied before assigning AP damage.
 - Resolve secondary damage effects and Payload effects, if applicable.
 - If damage is reduced to 0, the target counts as having taken no damage.

RESOLVE ATTACK

- Resolve attack.
 - Roll Drift if the attack missed prior to BIDs and involved an Area Effect Payload.
- Begin Damage Step resolution, if applicable.
- Begin Overheat resolution, if applicable.

INDIRECT ATTACKS

Most Activations involve a direct attack from a ranged weapon, like a shotgun or a sniper rifle, or a Melee attack, which can come in its most basic form as throwing a punch. Some Activations, however, include

the use of **indirect attacks**, which are attacks made by artillery or enterprising Units attempting to defeat cover by lobbing ordnance overhead.

When making an **indirect attack**, first declare so during the Declaration step of an attack, as this can change your Accuracy, Par, or your target's DV. Melee weapons and Activations involving Melee may not make indirect attacks.

Indirect attacks double a weapon's Range, but preclude a weapon from choosing targets that are within its normal Range value. Weapons with the Artillery Function ignore this drawback but cannot increase their Range as a result.

For example, a Sniper Cannon with 50 Range could indirectly attack any target within Range 51-100. A Howitzer with 99 Range and the Artillery Function could indirectly attack any target within Range 1-99, but not extend that Range any further.

Indirect attacks raise Par by 1. These attacks may be made against targets in or out of LOS, and they may target hexes. If the target is outside LOS, that target's DV is increased by 2, even when targeting a hex, and this DV cannot be reduced.

For example, a tank spots a far away Anvil, within LOS. The tank's Cannon has a Range of 30, and the Anvil is 45 hexes away. The tank's controller declares an indirect attack against the Anvil and tallies up the numbers. The Anvil's DV is 3; the Cannon has 1 Accuracy and no Artillery Function; the Par is raised by 1 because the attack is indirect. The tank casts 7d6 Par 5 versus DV 3 and comes up with 2, 3, 3, 4, 4, 4, and 6, for a total of 2 successes. The high-explosive shell whizzes past the Anvil, barely missing it, and burrowing into the dirt behind it.

DRIFT

Attacks including an Area Effect which miss their intended target will **Drift** off-course into a different hex. This applies to both indirect and direct ranged attacks.

To determine **Drift**, roll 1d6 to determine the direction the attack will go. Roll results start in the hex above the target hex and move clockwise around it. This roll must be made per attempted Hit for indirect attacks which make multiple Hits (excluding the automatic Hits based on Hit Locations generated by Blast Payloads).

Attacks Drift a number of hexes equal to the difference between successes and the target's DV. The new hex is the new target for that indirect attack, which Hits that hex automatically, and Hits any targets within its Area Effect.

For instance, an Anvil's indirect attack shows 2 successes against a target with 5 DV. As part of the Resolution step of the attack, the Anvil rolls 1d6 to determine the Drift direction and shows a result of 1. Because the difference between the target's DV and the attack successes is 3, the attack overshoots its target and lands 3 hexes further than intended, sailing past the target's head.

Drift results may not leave the Arc of the Activation, but may leave the Range. Drift results which would leave the Activation's Arc instead terminate in the closest possible hex. This effectively means that attacks cannot Drift "behind" the attacking Unit, as doing so would require the attack to land in a hex outside the Activation's Arc. Drift may also end up off of the Battlemat, in which case the attack's effects are nullified.

CONSTRAINTS

When making an Activation against a target, players must ensure that their action is within **Constraints**. Constraints limit what can and cannot be done based on a Unit's position, its target's position, the type of Gear used, and so on.

Ask yourself the following questions to ensure a target is within Constraints:

IS THE TARGET WITHIN LINE OF SIGHT?

Direct attacks, including Melee attacks, and certain pieces of equipment must have LOS to their target. Obstructions like Elevation, Terrain, and Objects can block LOS. Indirect attacks can overcome these LOS blockers.

IS THE LINE OF FIRE CLEAR?

Typically, if the LOS is clear, the LOF will also be clear. In cases where LOS is blocked, ensure that the LOF is not also blocked.

IS THE TARGET IN A VALID ARC?

Gear can only be used in the Arcs that it can see based on the Component it's mounted to, unless such Gear has a specific rule stating otherwise. Targets must be at least partially within an Arc to be within Constraints.

IS THE TARGET WITHIN RANGE?

If a target is beyond a weapon's Range, that weapon will have to resort to using an indirect attack to bring the target into Constraints.

IS THE TARGET A VALID CHOICE FOR THE GEAR OR PAYLOAD?

Certain targets may be invalid for certain weapons or effects, and are typically treated on a case-by-case basis.

One common example is whether or not non-Area Effect Payloads can Hit HIDDEN Units and Objects like Mines and Bombs. In these instances, the answer is no. HIDDEN Units, Mines, and Bombs are not valid targets for Payloads that do not have an Area Effect.



If you answered "no" to any of these questions, your attack may not be within Constraints, and may be invalid as a result. You may have to choose a different weapon, change your Facing, or move around an obstruction. Additionally, while the above checklist applies mainly to weapons, similar logic applies to equipment as well. A Radar will not provide any benefits to you if your target is outside of that Radar's Range or Arcs.

BLOCK, INTERCEPT, DODGE

When metal needs mashing and attacks are declared, threatened targets have the opportunity to defend themselves before the worst comes to pass. **Block, Intercept, Dodge [BID]** actions are vital to the survival of Units on the modern battlefield. They represent the Unit's ability to present armour to a threat, reduce a threat's potency, or avoid threats altogether.

BID actions are based on Hits, which happen as part of an attack. When a Unit is Hit, it may BID, using any single BID action available to it and any applicable defensive Gear. The chosen BID action lasts for the

duration of the attack. Units may BID any number of times per Turn, but only once per attack. BIDs are urgent actions, and are taken during a specific trigger as part of the Hit Location step of an attack.

BLOCK

A Unit declares that it is **Blocking** a Hit Attempt. That Unit spends its Block Cost and chooses a number of Hits in the Hit Attempt up to its Block Bonus. The Unit may then assign those Hits to any one of its Components. Units may not assign Hits to Disabled Components.

For instance, an Anvil is Hit by a Blast weapon, which generates 6 total Hits – one on each Component. That Anvil Blocks the Hit Attempt with a Block Bonus of 5, which allows it to allocate 5 of those 6 Hits to a single Component. It allocates them to its Left Arm, which carries a Shield, and the Shield is destroyed, leaving the rest of the Anvil unscathed.

Units may also Block for adjacent targets and take the attack's damage as if they had been Hit, effectively becoming the new target of the attack. In these instances, the attack will ignore disqualifying Constraints (such as Line of Sight, Arc, and Range) when it Hits the Blocking Unit.

For instance, a tank is Hit by an anti-tank missile, and an adjacent Anvil Blocks the attack. The anti-tank missile now Hits the Anvil, even if the Anvil would be out of Constraints otherwise. Think of it as the Anvil entering the allied Unit's hex temporarily to get in front of the attack.

INTERCEPT

A Unit declares that it is **Intercepting** a Hit Attempt. That Unit spends its Intercept Cost and reduces one incoming Hit's damage by its Intercept Bonus. Melee attacks may not be Intercepted. The Intercepting Unit chooses which Hit to Intercept, and may ignore Hits which end up missing or dealing less damage.

For instance, an Anvil is Hit by a Burst weapon, which generates 2 Hits – one on the Core and one on the Electronics. The Core is sturdy and can withstand the Hit, but the Electronics are fragile and critically necessary for its purpose in combat. The Anvil Intercepts, declaring the second Hit in the Hit Attempt, greatly reducing the damage its Electronics take.

DODGE

A Unit declares that it is **Dodging** a Hit Attempt. That Unit spends its Dodge Cost and improves its DV by its Dodge Bonus. If that Unit's DV is equal to or one lesser than the Hit Attempt's number of successes, that Unit receives half damage from that Hit. If that Unit's DV is higher than the Hit Attempt's number of successes, that Unit receives no damage, and the Hit Attempt is converted into a miss.

For instance, an Anvil with 4 DV is Hit by an Activation which rolls 6 successes, and which deals 30 damage to its Mobility Base. The Anvil has a Dodge Bonus of 2, and so it Dodges to increase its DV to 6. Its Mobility Base then takes 15 damage instead, saving it from taking a Damage Step and potentially crippling it for the remainder of combat. If the Anvil had a Dodge Bonus of 3, it would have avoided the damage entirely.

Activations involving Area Effects which directly Hit a Unit may be Dodged. If the attack was made indirectly, the attack lands in the Unit's hex instead of rolling Drift. Direct attacks which miss roll Drift as normal. Area Effects which do not directly Hit a Unit but are close enough to catch that Unit within their area may not be Dodged, as there is no DV calculation involved.

DAMAGE AND RESISTANCE

If targeted, don't be hit. If hit, don't be penetrated. If penetrated, don't be killed. This mantra of layered defence is scored into the brains of every Combat Vehicle crewmember and every Anvil pilot who has ever participated in any kind of formal or informal training. Sometimes, however, there is simply no avoiding direct confrontation, and when the only thing protecting you from an untimely demise is a half-inch thick sheet of armour plate, it better be some damn good plate.

All Units in METALLURGENT have **Armour Points [AP]**. Vehicles of all types, including cars, trucks, tanks, ships, fighter jets, Anvils, and diesel locomotives use AP as a measure of that Unit's durability and system redundancy.

AP is always an integer and cannot be negative. Units have unique AP totals for each of their Components – the individual parts which make up the whole Unit. Units which take damage subtract that damage's value from the AP of the damaged Component after calculating damage additions and reductions.

When a Unit's AP reaches 0, it suffers a **Damage Step** to that Component. Damage Steps represent the degradation of armour and durability as combat proceeds. When a Unit takes a Damage Step, whoever inflicted the Damage Step rolls 1d6 and compares that result to a Damage Step table. The specific table is based on the Component which took the Damage Step.

For instance, an Anvil inflicts a Damage Step to another Anvil's Generator while locked in an increasingly destructive duel. The attacking Anvil rolls 1d6 and compares the result to the other Anvil's Generator Damage Step table to see what sort of other issues arise as a result of its continuous onslaught.

When a Component's AP has been reduced to 0, and after the corresponding Damage Step has been resolved, that Component's AP is replenished to its maximum value.

For more information on Damage Steps and their deadly aftermath, see *THE ANVIL – DAMAGE AND DESTRUCTION*.

Industrial machinery and civilian vehicles may be at the mercy of any damage thrown their way, but Combat Vehicles and Anvils have **Resistances**.

When damage is assigned to a Component, that Component's relevant Resistances reduce the damage by their value. There are three types of Resistances, which correspond to **three types of damage**:

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 by relying on raw explosive power (such as grenades and artillery shells).

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.

Different damage types interact with long range attacks differently as well. In METALLURGENT, weapons may make attacks beyond their listed Range value at a penalty, and when doing so, the damage that weapon does is altered in the following ways:

- KE damage is halved when it exceeds its weapon's Range.
- CE damage is reduced by 5 when it exceeds its weapon's Range.
- TE damage is reduced to 0 when it exceeds its weapon's Range.

SPECIAL DAMAGE

KE, CE, and TE damage are ubiquitously found in METALLURGENT and all Units must contend with them on the modern battlefield. There is one additional type of damage, however, known as **Special Damage [S]**.

Special 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. Weapons never produce Special Damage on their own, but clever thinking can allow you to weaponise Special Damage for your own purposes. Crucially, Special Damage is not arrested by Damage Steps, and overflows from one set of AP to the next.

FALL DAMAGE

Units which move off of high Elevation, voluntarily or otherwise, may suffer **fall damage** as they impact the hex below. Units may descend changes in Elevation equal to or less than their Height without taking fall damage. However, for every Level descended past this value, that Unit takes 10 S to its Mobility Base (or equivalent) and 5 S to all other Components.

For instance, a Height 3 Anvil leaps from the top of a Level 5 building to the ground at Level 0. The differential in Height is 2, and so the Anvil takes 20 S damage to its Mobility Base and 10 S damage everywhere else.

For more information on these traits, see *THE BATTLEFIELD – THE BATTLEMAP*.

Occasionally, a Unit may attempt to occupy the hex of another Unit or Object by falling or Jumping onto it. This is especially likely when dealing with HIDDEN Units, as they can't be seen to be avoided. In these instances, both Units take damage. The moving Unit takes fall damage (10 S to the Mobility Base, 5 S to all other Components) equal to the difference in Height between it and the stationary Unit, plus an additional 5 S to all Components. The stationary Unit on the other hand takes the moving Unit's Gross Load in KE damage, as a Melee Activation, that automatically Hits all Components.

After damage has been resolved, both Units become PRONE, and the stationary Unit is placed 1 hex directly away from the moving Unit's direction of travel and the moving Unit is placed in the hex it attempted to land on in the first place. If this would result in an Illegal Move, the stationary Unit is placed as close to the hex it was attempted to be moved to as possible. If no options are available, both Units are Disabled and removed from play, tangled up in a wretched heap of metal.

MOVEMENT



First gear. The pad fans spin like cyclones. Air rushes to fill the skirt, and I'm floating. The difference between my Anvil and the ground is less than six inches. The difference between waiting and going is night and day. I start moving. I leave the Anvil I killed behind. It was a Gannet.

Slow. Prey.

Second gear. The aft propellers gyrate, gorging themselves on the air which flows around my glass-covered cockpit. I speed up. Radio calls I can't hear go out. One member of the herd has been culled. They're looking for me. They'll find me.

They won't catch me.

Third gear. I glide over the river like a fogbank. I begin to speak to the air in the only language it understands. I feel its pushes and pulls. Every tug on the stick is a negotiation, a deal struck, a favour earned. Water sprays in my wake and tracer fire lands where I was.

Faster.

Fourth gear. Vortices of wind swirl around my Anvil's leading edges. They look like steam or smoke. They trace my outline like a ghost under a sheet. I leave the river and the herd behind. The air churns with my approach and twists into unnameable shapes with my absence.

I sense the danger before I see it.

Fifth gear. The titanium skeleton which clutches me in its bosom strains as I tear along the open ground. I undulate, serpentine, spiralling through a hail of gunfire. They do not hit me. I escape shot and shell like the wind escapes a grasp. Another Anvil blocks my path.

What can it do against the wind?

Sixth gear. I am upon the Anvil. An Auk. Slow. Prey. The wind underneath me, behind me, around me fulminates into a stormcloud. At this speed, I have transcended wind. I am lightning. I fork, and I stretch out my electrified arm. I drive an explosive-tipped pile through the cockpit of my target, and I kill it.

A bolt from the blue.

Seventh gear. I lose no speed. I think nothing of the Auk as soon as it leaves my view. I do not read my gauges, nor do I look at the ADD. I ignore STENO. I ignore the craters forming around me. There is open ground before me, framed perfectly in my glass-covered cockpit. Open ground and open air.

It's still not enough.

Eighth gear. I jettison my weapons. I'm gone before they hit the ground, empty. My engine gasps for fuel. The fans roar like hurricanes. My Anvil bleeds into the world behind me, and...

I'm free.



Most Units in METALLURGENT have the ability to move across the ground, through the air, or over the surface of water. Entering a hex through any method of travel costs **Move Speed [MS]**. Each hex entered requires the expenditure of 1 MS, though some hexes, such as Woods hexes, may require an additional cost to be spent.

CRUISING AND FLANKING

Units use two types of MS to move: **Cruising Speed** and **Flanking Speed**.

Cruising Speed is generated automatically during a Unit's Upkeep. Cruising Speed may be spent during a Unit's Turn, and the Unit may move up to a number of hexes equal to its Cruising Speed, spending at least 1 MS for each hex entered.

Cruising Units do not impose any Accuracy or Par penalties to themselves or Units targeting them. If a Unit remains stationary during its Turn, it is considered to be Cruising.

Flanking Speed does not automatically generate during a Unit's Upkeep. Instead, Units must gain access to this MS by spending their Manoeuvre Cost during their Turn – for Anvils, this comes out of their Charge; for all other Units, this comes out of their EN. When a Unit spends their Manoeuvre Cost to generate Flanking Speed, they gain additional MS equal to their Flanking Speed and may continue moving, spending at least 1 MS for each hex entered. Flanking Speed may only be generated once per Round.

Flanking Units lose 1 Accuracy on all of their Activations and gain 1 DV. These effects last until the start of the Flanking Unit's next Turn. Units do not receive these benefits if they end their Turn without moving at least 1 hex away from their starting position at the start of their Turn. Additionally, Units may not generate Flanking Speed until all of their Cruising Speed has been used up.

While moving, Units may Activate Gear, Skills, or other effects at any point during the movement. When doing so, any unspent MS is preserved and may be spent after the Activation has resolved. Exceptions to this rule **terminate movement**.

When movement is terminated, a Unit loses any currently-generated MS. This means that a Unit may take an action that terminates movement, spend Charge to gain Flanking Speed, and continue moving, using its newly-generated Flanking Speed to supplant its lost Cruising Speed. If a Unit terminates its movement after generating Flanking Speed, that unit can no longer move during its Turn.

For instance, an Anvil with 6 Cruising Speed and 3 Flanking Speed carries a large Artillery Cannon into battle. The pilot's Turn comes up and the Anvil generates 6 Cruising Speed. The pilot decides to Cruise 3 hexes before Activating the weapon against a distant target. When the pilot Activates this weapon, its considerable kickback causes his Anvil to terminate movement. The pilot decides to move again after demolishing their target, and must spend Charge to generate Flanking Speed to do so. This allows them to move back to their original position. Because they Flanked and moved at least 1 hex away from their starting position this Turn, they gain 1 DV and any subsequent Activations lose 1 Accuracy. In total, the Anvil moves 6 hexes.

Units may not enter a hex if it is occupied by a hostile Unit, even if that hostile Unit is realistically much smaller than the Unit attempting to enter. Units may, however, enter a hex occupied by an allied Unit. In all cases, Units may neither terminate movement nor end their Turn while occupying another Unit's hex.

Units which are incapable of altering combat – civilian vehicles, on-foot pilots, cats and dogs – are disregarded when checking movement on a Battlemat. Units may enter hexes which have Objects in them provided they have the means to do so.

MINIMUM MOVEMENT

In some cases, a Unit may run out of Cruising Speed before it can spend the full cost to enter a hex. In these cases, where a “floating” Cruising MS is unable to cover the cost, a Unit may immediately spend its Manoeuvre Cost to generate Flanking Speed to cover the cost of entering that hex.

For instance, if an Anvil had just 1 Cruising Speed left but wanted to enter a Woods hex, which costs 1 additional MS to enter, its player would declare their intention to enter that hex, then spend the Anvil’s Manoeuvre Cost to generate Flanking Speed. By spending 1 Cruising Speed and 1 Flanking Speed, the cost to enter the Woods hex is paid, and the Anvil enters the hex.

FORCED MOVEMENT

SIDESLIP

Some Units (like hovercraft and helicopters) can’t stop on a dime. Other Units may find themselves on slick ice or pavement that’s a little too smooth. In such circumstances, these Units are susceptible to **Sideslip**.

Sideslips propel a Unit in the direction last travelled and only occur if the end hex could be entered without spending Manoeuvre Cost or taking a special action, like Climbing. When a Unit Sideslips due to Terrain, it terminates movement and gains a new Facing, determined randomly.

By their nature, Units with a Hover Mobility Base, the Hover Keyword, and Units with the Rotorwing Type all Sideslip 1 hex when terminating Flanking movement, unless such a termination resulted from Terrain. All other Units may Sideslip when interacting with specific types of Terrain.

For instance, an Anvil with a Hover Mobility Base can spend Cruising Speed to move, terminate that movement, generate Flanking Speed to move, terminate movement, then Sideslip 1 hex. This makes Hover Units fairly slippery compared to their counterparts.

ILLEGAL MOVES

Units which Sideslip or are moved involuntarily by some external force may inadvertently be subjected to an **Illegal Move**.

An **Illegal Move** is any movement or placement of a Unit on a hex which would require it to spend any resource other than MS to enter during its normal Turn. When a Unit is subjected to an Illegal Move, it is instead moved to the nearest legal hex. If two such hexes are equidistant from the moving Unit, that Unit’s controller chooses the hex to move to. If the Illegal Move was prompted by Terrain, the Terrain effect which caused the movement does not apply again during that Turn.

For instance, a Bipedal Anvil Sideslips on Ice. The Sideslip results in an attempt to place the Anvil on top of a Height 4 building. The Bipedal Anvil can Climb by spending its Manoeuvre Cost, but because this requires a resource that is not MS, the placement is an Illegal Move. As a result, the Sideslip ends with the Anvil still on the Ice. Because the Terrain effect caused the Illegal Move, the effect of Ice to Sideslip on a dice roll does not apply again, and the Anvil comes to a stop.

FACING

The effectiveness of any given Unit is largely contingent on its **Facing**. Units which occupy a hex on the Battlemap must face one of the hex's six sides. Units may not face vertices under any circumstances.

While moving, a Unit's Facing must be aligned with the direction of travel. Units may also reverse when they move, and their Facing is oppositely-aligned with their direction of travel when this happens. Units may not mix these two movement modes within the same Cruise or Flank movement. If an Anvil moves forward with Cruising, but then wishes to back up, it must spend its Manoeuvre Cost to Flank, and begin Flanking in reverse.

Units may spend 1 MS or their Manoeuvre Cost to change their Facing to any hex side.

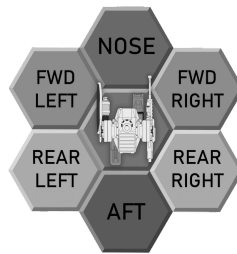
Units which end their Turn may not change their Facing afterwards. An exception is Anvils, which may spend their Manoeuvre Cost to change their Facing when it is not their Turn, even during other Activations as part of a defensive action.

ARCS

Facing determines how a Unit draws its offensive and defensive **Arcs**, which is critically important for the gameplay of METALLURGENT.

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

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



Each Arc is a 60 degree cone that extends forever without overlapping. The Nose, Forward Left, and Forward Right Arcs can be referred to as the **Forward** group. The Aft, Rear Left, and Rear Right Arcs can be referred to as the **Rear** group. Thus, a Unit's Forward and Rear Arcs are split along its line of perpendicularity. As the lines for an Arc are drawn out from a Unit, they invariably split some hexes in half. These split hexes are inclusive of both Arcs.

For instance, if a Unit on a split hex is between the Nose and Forward Right Arcs of an attacker's weapon, it counts as being within both.

Arguably the most important aspect of Facing is its relationship with a Unit's Gear, specifically weaponry. Depending on where the Gear is mounted, it may gain or lose Arcs in which it can be Activated.

For Combat Vehicles, Gear mounted to them can only be Activated in the Nose Arc, barring special abilities. Some Units, like tanks, usually come equipped with a Turret or similar element, which can alleviate Facing concerns. Anvils and other Units which share their Component layout determine their Gear Arcs based on which Component that Gear is mounted to.

Gear mounted to an Anvil's Core receives only the Nose Arc, much like a Combat Vehicle. Gear mounted to an Anvil's Arm, however, gains that Arm's respective Forward and Rear Arcs as well as the Nose Arc. This provides additional flexibility, though the Arms are more limited in what they can carry.

BID efficacy is also highly dependent on Arcs. Attacks which originate from a Unit's Forward Arcs are easy to mitigate, but attacks which come from the flanks or from behind are not.

BID Costs are increased by 1 when attacked from a Rear Arc, and increased by 2 when attacked from the Aft Arc.

In certain instances, Units may be damaged by effects which fully encompass them, or originate from above or below. If a source of damage does not originate from an Arc (such as damage from Terrain or environmental effect), treat that damage as if it originated from the Aft Arc.

TURNING WHILE MOVING

Units which spend at least 1 MS and move at least 1 hex may, before or after physically moving from one hex to another, change their Facing by 1 hex side. This Facing change costs no resources. Units may also spend 1 MS or their Manoeuvre Cost to change their Facing to any hex side even while moving.



Facing also modified the effectiveness of BID actions. Units increase their BID Costs by 1 EN when defending against attacks originating from the Rear Arcs, and by 2 EN when defending against attacks originating from the Aft Arc.

MANOEUVRES

Manoeuvres constitute combat-centric actions that require either a special resource for Anvils or a hefty chunk of EN for all other vehicles.

Manoeuvres usually require a Unit to spend its **Manoeuvre Cost**, but this is not always the case, and exceptions are specified, such as when an Anvil throws a Punch. Anytime an Anvil spends **Charge** or performs an action which can use Charge, it is performing a Manoeuvre.

Some of the most commonly seen Manoeuvres are as follows:

GENERATE FLANKING SPEED (*1/Round*)

A Unit spends its Manoeuvre Cost to generate Flanking Speed.

CHANGE FACING (*Any/Round, variable cost*)

A Unit may spend 1 MS or Manoeuvre Cost to change its Facing to any side during its Turn.

Anvils may spend their Manoeuvre Cost to change their Facing to any side when it is not their Turn, either between actions or as part of defending against an Activation.

When a Unit enters a new hex, it may, before or after entering that hex, change its Facing by 1 side for no cost.

PUNCH (*Agility Bonus/Round per Arm [minimum 1], Melee Function*)

An Anvil spends 1 Charge to Punch. This is a Melee attack Activation with a Range of 1.

When Punching, cast your Mettle plus the Agility Bonus of the Arm you use to make the attack. A Hit deals KE damage equal to that Arm's Strength divided by 2. As this is a Melee Activation, Par is reduced by 1.

KICK/RAM (1/Round, terminates movement, Melee Function)

A Unit spends its Manoeuvre Cost to Kick (if it has legs) or Ram (if it does not). This is a Melee attack Activation with a Range of 1.

When Kicking or Ramming, cast your Mettle plus your Dodge Bonus. A Hit deals KE damage equal to your Mobility Base's Load if you are an Anvil, or your Gross Weight divided by 2 if you are a Combat Vehicle. On a Hit, the Hit Location is automatically the Mobility Base of your target, unless your target is PRONE, in which case you roll the Hit Location. Kicks and Rams draw their Line of Fire from half of their Unit's Height, as opposed to the top. As this is a Melee Activation, Par is reduced by 1.

SLAM (1/Round, terminates movement, Melee Function, Units with the Slam Trait)

A Unit spends its Manoeuvre Cost to Slam. This is a Melee attack Activation with a Range of 1.

When Slamming, cast your Mettle plus your Flanking MS value. A Hit inflicts the Low Condition and deals KE damage equal to your Mobility Base's Load multiplied by 2 if you are an Anvil, or your Gross Weight if you are a Combat Vehicle. As this is a Melee Activation, Par is reduced by 1.

SIDESWIPE (1/Round, terminates movement, Melee Function, Units with the Sideswipe Trait)

A Unit spends its Manoeuvre Cost to Sideswipe. This is a Melee attack Activation with a Range of 1.

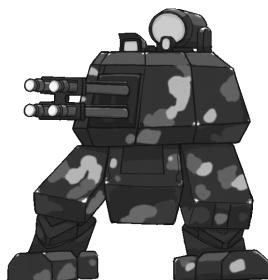
When Sideswiping, cast your Mettle plus your Flanking MS value. A Hit deals KE damage equal to your Mobility Base's Load if you are an Anvil, or your Gross Weight divided by 2 if you are a Combat Vehicle. When the attack resolves, you may move to any hex adjacent to your target and change your Facing. As this is a Melee Activation, Par is reduced by 1.

CLIMB (Any/Round, Units with the Climber Trait)

A Unit spends its Manoeuvre Cost to convert any amount of MS into Climbing MS at a 1:1 ratio. Units may spend 1 Climbing MS to ascend or descend 1 Level of Elevation. Units may only spend this Climbing MS when adjacent to Structures or Elevation changes in Terrain. Anvils must have at least 1 Standard Arm to spend Climbing MS, and that Arm must not be Disabled or missing. Units may end their Turn Climbing, but fall if they suffer a Damage Step or become Staggered. Units may not Activate Gear while Climbing.

JUMP (1/Round, Units with the Jumper Trait)

When a Unit spends its Manoeuvre Cost to generate Flanking MS, it may instead generate Jumping MS at a 1:1 ratio. Jumping MS may only be spent to move in a straight line and allows a Unit to ascend a number of Levels equal to the Jumping MS total. Jumping Units that take fall damage divide that damage by 2 unless they land on a hex occupied by another Unit. Units may not end their Turn Jumping, and must be placed on an Object or Terrain at the end of their Turn. Jumping Units count as Flanking and do not count as Airborne. Units may not Activate Gear while Jumping.



ZSU-30-4 Zeya sticker from a children's craft book

EXAMPLE SCENARIO

Boy Scout, a PAA Ace pilot, deploys on a Sortie with his trusty American-made Anvil, Totin' Chit. He begins the Sortie with 0 Heat, full EN, and, because his Anvil was recently repaired, no damage on any of his Components. He deploys in the BLUE DZ with his Initiative of 5. Round 1 begins, and he is first to make a move.

Boy Scout spots a hostile T-72 tank some distance away. He moves Totin' Chit forward, Cruising 4 hexes, before taking a shot at the tank with an Anti-Tank Missile. The Anti-Tank Missile has 2 Accuracy and, because he Cruised, his Accuracy is not impaired. This means he will cast 8d6 Par 4. The T-72 is idle and has a DV of 4. Boy Scout spends the weapon's EN Cost, reduces its Magazine, and gains its Heat before finally casting dice. The results are 1, 2, 3, 4, 4, 5, 5, 6; a total of 6 successes easily overcome the T-72's DV of 4.

Boy Scout then rolls to see where he Hits the tank. T-72 tanks have two Components: the Hull and Turret. The Hit Location table shows a Hit on the Hull on a roll of 1-3, and a Hit on the Turret on a roll of 4-6. Boy Scout's roll comes up as a 3, and Hits the Hull. His Anti-Tank Missile deals 20 CE damage and threatens to punch a fist-sized hole through the tank's front glacis. If the tank does not BID, it will take a Damage Step.

The T-72 chooses to BID the Activation by Intercepting. It takes 4 EN to generate an Intercept of 6. 20 CE is reduced to 14 CE, which then strikes the T-72. The T-72's Hull has 5 CE Resistance, further reducing the damage to 9. The resulting damage bites into the Hull's AP, dealing 9 damage to a 12 AP Component. Safe (for now).

Annoyed, Totin' Chit advances one more hex and terminates Cruising Speed. The T-72 is within Flanking distance, and so Boy Scout spends his Manoeuvre Cost to generate Flanking Speed. With 4 Flanking Speed he can bring himself to adjacency with the T-72 and, better yet, get behind it. Having Flanked, Totin' Chit's DV raises from 4 to 5, and its ranged Activations suffer -1 Accuracy. However, Totin' Chit carries a Melee weapon, and Melee Activations are unaffected by the user Flanking.

Boy Scout tallies up his modifiers again. His Combat Knife has 2 inbuilt Accuracy and it is mounted to an Arm that has 2 Agility. All Melee Activations also reduce Par by 1. This means he casts 10d6 Par 3 against the T-72 tank. The T-72 still has 4 DV, and with the odds in his favour, Boy Scout spends the weapon's EN Cost and gains the weapon's Heat (the Combat Knife has no Magazine to reduce because it's a sharp stick). The results are 1, 1, 1, 2, 2, 4, 4, 4, 5, 6; 6 successes once again, and he plunges the Combat Knife into the tank.

Boy Scout rolls to see where he Hits and rolls a 1, once again Hitting the Hull. The Combat Knife does 11 KE damage and is striking an already-Hit Component. The T-72 wants to BID the Activation, but it only has access to Intercept, and Melee Activations cannot be Intercepted. The T-72 will have to rely on its natural Resistances to prevent a Damage Step.

The Activation proceeds and the Combat Knife's 11 KE damage overwhelm the T-72's paltry 2 KE Resistance. Had Boy Scout attacked from the front, the Resistance would have been higher, due to how tanks are constructed, but good positioning allowed him to take advantage of his target's weakness. The T-72 takes 9 KE to the 3 AP Hull, resulting in a Damage Step. The excess 6 damage is arrested when the Damage Step occurs and does not overflow into the next set of AP.

Boy Scout rolls on the Tracked Combat Vehicle Damage Step table to see what the effect of his attack is. Regardless of the outcome, the T-72 is in deep trouble if it can't escape or call for backup.

THE BATTLEFIELD



"Steady, Corporal."

Bohme blinked a few times. He hadn't realised how intently he'd been staring at the metal floor of the Marder he and his fireteam rode in. He hadn't realised how tightly he'd been gripping his knees. He hadn't realised that, for the past sixty seconds, his fireteam's assistant squad leader had been trying to get his attention.

"Sorry, sir," he murmured.

The assistant squad leader's voice was cold and calm, like the frigid air outside the bustling personnel carrier. "We are not far from our drop-off point. Do not exhaust yourself before we enter the fight. You are a talented soldier. We will need you at your best."

"Yes, sir," Bohme replied, forcing his voice to rise above the clanking din of armour and track. The assistant squad leader relaxed.

The rest of the Jäger Corps panzergrenadiers showed varying signs of readiness and nervousness. They, along with their platoon, were to reinforce a Chain of Anvils engaged with hostile forces near Kaliningrad. The fighting had drawn out and the Anvils needed to be repaired, but separatist Soviet forces had blocked their route back to allied Polish territory. Bohme furtively eyed the rack of anti-tank missiles stowed just behind his squadmates.

Minutes passed. The panzergrenadiers exchanged no words. Anticipation squeezed into the precious little space between them, filling the troop compartment like snow. Bohme suppressed a shiver. More minutes passed. Complaints rang out as the Marder bounced over a gash in the winter-worn road. A light flicked on. The clanking became silent with a squeal.

"Grenadiers, the hour is here," the assistant squad leader called out. "We go on foot from here. Recall your training, and your victories, and be precise. Disembark!"

Freezing air billowed as man after man piled out of the rear hatch of the vehicle. Bohme did not follow. Instead, he hoisted himself into the anti-tank gunner's position atop the vehicle, nestled within the auto cannon turret, where a MILAN launcher sat ready to be used. He set about his preparations as the Marder slowly moved forward again. Gunfire echoed over the hills and through the trees they sought to use for cover. Slowly they crept, men and machines, up their defilade. The Marder's radio set burbled with activity: orders, requests, statements, exclamations. The battle raged like a thunderstorm.

"Gunners, advisement, two hostile Anvils, bearings zero-zero-eight, zero-three-three," came a static-laden radio call. Bohme tried to swallow. Not Anvils. Anything but Anvils.

The Marder to his left crested the hill first as its infantry hustled to protected positions. The trees behind them provided silhouette protection but did little to assuage the fear of what might happen should an enemy Anvil detect the newly-arrived reinforcements.

A stray shell, glowing red-hot like a firework, glanced off of the first Marder's front plate, narrowly missing the anti-tank gunner's head and forcing him back into his vehicle. Bohme's Marder carefully exposed its turret to the battle. He counted no fewer than five enemy tanks, T-64s it seemed, and a smattering of BMP troop carriers. Many

of them hid behind ruined buildings and explosively-excavated earthworks, unwilling to enter a frontal firefight with a Jäger Corps Anvil.

The two enemy Anvils, an Afalina and a Vodnyavuk, skirmished with two allied Anvils, an Auk and a Bittern. The Auk's massive Local Control Array sparked weakly, black smoke pouring out of a vicious gash torn through its mounting platform by the Afalina's laser blade.

"Third, third— where—?" Bohme wondered aloud, quickly scanning the area. There was no time.

"AT! Anvil! Front!" came the order. Bohme forced his nerves to comply. Unable to get line of sight to the Afalina's legs, Bohme cued his missile onto the engine mounted to its back. One shot, then auto cannon fire, reload, repeat. Shoot, reverse, forward, shoot.

The Marder to Bohme's left exploded. Wicked, searing hot shards of steel and aluminum slashed through the air. Some men perished immediately. Some didn't. The Vodnyavuk trained its cannons on Bohme's Marder, and his panic choked him. He fired his missile. The radio blared with frantic calls. MILAN missiles required constant guidance to target, and as the bloom in Bohme's sight picture homed in on the Vodnyavuk's cockpit, cannon shells the size of his fist pulverised the air around him, shredding through the soft brush behind the hill.

Ears ringing, eyes stinging, Bohme held his cue on the Vodnyavuk's narrow nose. It twisted just before the missile struck, and bang! The warhead exploded on the Vodnyavuk's left arm. Bang! The other Marder landed a hit right on its engine. Unable to hear the shouting outside or inside the vehicle, Bohme scrambled to reload his launcher as the vehicle lurched into cover. The Vodnyavuk reeled from the attacks but remained standing, defiant, ready to re-engage.

Corporal Bohme frantically reloaded his weapon. The sound of shells thudding into the hillside reverberated throughout the metal box he feared would become his coffin. He tried not to think about the suddenness of death. He tried to remember the prayers his mother and sisters said for him before he last left home. He tried to break the ice filling his blood and will his fingers to move precisely.

They rattled forward again. Bohme quickly tried to ready his weapon, and the world seemed to freeze as he looked up into the four ruby-red lenses of an Afalina's electronics system. It was here.

The radio screamed with orders to reverse, but the laser blade, a broad pink jet of incandescent plasma, was already burning, already swinging. Bohme screamed and dove out of the Marder, landing facefirst in the snow and hard-packed ground, seconds before his vehicle collapsed under the raw power of Soviet thermal weaponry. An ear-splitting explosion pressed Bohme to the ground as a MILAN detonated on the Afalina's arm, punching a hole through the laser blade's power cell. Its flame sputtered and died, and the Afalina, enraged, turned to its attacker.

Jakob Bohme longed for something between life and death. He wished to be anywhere but here, but where else could he be? He compelled himself to be steady. His freezing hands balled into fists, and he shot up from the ground like a rocket. As the Soviet Anvil smashed a titanium foot through the driver's compartment of the last remaining Marder, Corporal Bohme braved fire and slag to retrieve a shoulder-mounted anti-tank weapon from a fallen comrade. While the Afalina strewed the snow with bloody streaks, Corporal Bohme trained his weapon on his enemy. He fired.

It turned to look at him, red-eyed.

Logically, Bohme knew that inside that red and green armoured titan sat a person with whom he shared a similar age, a build, a body, a fear. But as the anti-tank rocket exploded in mid-air between him and his target, incinerated by the Afalina's core-mounted active defence system, he could not help but feel as though he were staring the Devil himself in his many eyes.

Bohme threw away his weapon and drew his sidearm. The clip rapidly emptied, pinging pitifully off of the Afalina's armour. After a few clicks, he threw that away as well. It was quiet again. Bohme thought his hearing must have completely given out. His body refused to move any more. He knelt in the snow, waiting for the Afalina to patiently train its assault rifle on him, carefully cue in Bohme's exact position, gently squeeze the firing trigger past first detent—

A flicker, barely perceptible, drew Bohme's eyes off of the barrel of his certain doom. In the split second it took for him to look, the Afalina's core exploded in a shower of sparks and ruined armour. A sabot the size of a man's arm, fired from the sole remaining Jäger Corps Anvil, split through the Afalina's cockpit from one side to the other. Deprived of its pilot, the machine lost its balance and toppled to the ground with a tremendous noise. It remained motionless, and the quiet returned.

Corporal Bohme sat there for a time, shellshocked. He hadn't realised that, for the past two minutes, his assistant squad leader had been trying to snap him out of it. Bloodied and battered, the man's voice remained as collected as ever, betraying none of the gut-frothing fear which threatened to overwhelm him.

"Steady, Corporal," he said, grasping Bohme by the shoulder. "The fight's over. Well done."

"Sir...?"

"Easy. The first time is never easy. Breathe, Corporal. We succeeded, and we survived. That's what matters right now."

"Yes, sir..."

To think that just three weeks ago, the new millennium's celebrations were all that mattered.



A pilot takes cover behind his downed Afalina

THE BATTLEMAP

METALLURGENT is played on a **Battlemap** – a grid of tessellated hexes onto which Terrain, Units, and Objects are placed.

Standard Battlemaps are 33 hexes wide and 30 hexes tall, with straight columns and slanted rows. Some Battlemaps may be larger or smaller, or more uniquely-shaped depending on the needs of the Sortie. Each hex of a Battlemap must have at least one Terrain type assigned to it.

Battlemap hexes are numbered, starting at 0101 in the upper left and counting up by 1 per hex moved rightwards and downwards. The first two numbers represent the rightward direction, and the last two represent the downward direction. This means the bottom left hex is 0130, the upper right hex is 3301, and the lower right hex is 3330, assuming a standard 33x30 Battlemap.

Some Units or Objects may be placed outside the Battlemap and are referred to as being **offmap**. Offmap Units, like long-range artillery or command vehicles, can still influence combat, and may even be part of the objective of the Sortie.

ALTITUDE

ZONES

While ground combat can be thought of as two-dimensional, some Units operate in a three-dimensional space. The battlefield is thus separated into multiple **Zones**.

There are six distinct Zones. Units in the Ground Zone may need specific Ranges on their Gear to affect targets in other Zones.

THE GROUND ZONE

Targets may be affected as long as they are within Range.

THE NAP OF THE EARTH [NOE] ZONE

Effects from the Ground Zone must have a Range of 2 or greater to reach this Zone.

THE LOW ALTITUDE ZONE

Effects from the Ground Zone must have a Range of 9 or greater to reach this Zone.

THE MEDIUM ALTITUDE ZONE

Effects from the Ground Zone must have a Range of 99 or greater to reach this Zone.

THE HIGH ALTITUDE ZONE

Effects from the Ground Zone must have a Range of 999 or greater to reach this Zone.

THE SPACE ZONE

Effects from the Ground, NOE, and Low Altitude Zones may not target Units in this Zone.

ELEVATION

As a largely tactical game, the ranges exhibited by weapons and equipment are somewhat truncated compared to the eye-watering distances at which real-life people conduct real-life war. Even so, many ranges are

fairly long, so channels for clear vision are crucial for everything from simply identifying a target and shooting it to more complex actions like assessing a target's damage or its defensive capabilities.

Visibility during combat is predominantly dependent on **Elevation**. Elevation is measured in **Levels** and represents changes in the Terrain on the Battlemat.

In the Ground Zone, the Zone in which most combat takes place, Elevation ranges from Level -10 to Level 10, where Level 0 is right in the middle and considered to be the "base Level." Each Level is about 3 metres tall, or about 10 feet. This means that if you stood a hex (30 metres across) straight up, it would equal 10 Levels.

Like Elevation, Units and Objects also measure their **Height** in Levels. Most Units are between 1 and 3 Levels tall. Anvils are always 3 Levels tall, while other Combat Vehicles have their varied Height listed on their readout sheets.

Units do not spend additional MS when entering Elevation changes shorter than half their Height. Units must spend 1 additional MS to enter Elevation changes equal to half their Height. Units must Climb or Jump to enter Elevation changes greater than half their Height.

For instance, an Anvil may move from Level 0 to Level 1 without a MS penalty, but moving from Level 0 to Level 2 would require 1 extra MS, and moving from Level 0 to Level 3 would be impossible unless the Anvil can Climb or Jump.

LINE OF SIGHT

Line of Sight [LOS] is drawn from the uppermost Level of the involved entities, be they Units, Objects, or Terrain.

For instance, an Anvil, which is Height 3, draws LOS at Level 3. An M60 tank, which is Height 1, draws LOS at Level 1. The Elevation which an entity occupies is added to their Height, so an Anvil occupying a Level 2 hex draws LOS at Level 5.

To determine whether or not two entities have LOS to each other, they must be able to draw a straight line from the centre of both occupied hexes. **Obstacles** must partially or completely intersect the line to block LOS. An obstacle is anything which can block LOS (typically Terrain or a Structure). Units can never be obstacles.

Determine the Heights, in Levels, of each entity and obstacle involved, then check the following:

- If the obstacle's Height is equal to or greater than both entities' Heights, LOS is blocked.
 - A Height 3 Anvil cannot shoot a Height 1 M60 sitting somewhere behind a Height 3 Structure, but can shoot an M60 sitting somewhere behind a Height 2 Structure.
- If an entity is adjacent to an obstacle with a Height greater than that entity's Height, LOS is blocked.
 - A Height 3 Anvil cannot shoot a Height 1 M60 sitting behind and directly adjacent to a Height 2 Structure, but can shoot an M60 which is behind and a few hexes away from a Height 2 Structure.

These clauses mean that a Height 1 M60 tank cannot break LOS by hiding behind a Level 1 bit of Terrain (assuming the tank is on Level 0), if its opponent is taller than that Terrain. Other tanks may have trouble finding a good firing solution, but Anvils and other tall Units can shoot over such obstacles with ease.

LINE OF FIRE

Different types of attacks have different **Lines of Fire [LOF]**.

When measuring LOS for a direct attack, the LOF assumes the same geometry – that is to say, the direct attack will be blocked by anything which would block that Activation's LOS.

Indirect attacks do not match their LOF to their LOS, instead drawing their LOF in a parabolic arc which rises high into the air before intercepting LOS and, logically, the target. Indirect attacks ignore all obstacles except for those which are both directly adjacent to their target and along the LOS path.

Indirect LOF is blocked if:

- The Height of an obstacle is greater than the Height of the defender and the defender is adjacent to that obstacle.
- The Height of an obstacle is greater than the Height of the attacker and the attacker is adjacent to that obstacle.

For instance, an Anvil is adjacent to a Height 4 building and both are on Level 0 ground. When the Anvil attempts to draw LOS to a target on the other side of the building, it fails. The Anvil attempts to use an indirect attack to circumvent this, but the LOF encounters an adjacent obstacle which is taller than the Anvil, and so the Activation fails again. The Anvil must reposition if it wishes to attack its target.

Additionally, indirect attacks which attempt to draw their LOF under a Ceiling are likely to collide with that Ceiling and possibly cause it to collapse, so be cautious.

COVER

Units on the modern battlefield are not so foolish as to form massive armoured columns in the middle of open ground, where they can be savaged by hostile air, artillery, and direct firepower. Instead, nearly all Units engaged in combat make use of **Cover**.

All forms of Cover have a **Density** value, which marks how durable and how protective that Cover is. Units which occupy a Cover hex, or which benefit from Cover due to an attack's Line of Fire passing through Cover, reduce that incoming Activation's damage value by the combined Cover Density. Density values are always a positive integer.

Cover Density degrades by 1 when it interacts with damage that is equal to or greater than it. When Cover Density reaches 0, that Cover becomes Rough Terrain. Cover can only degrade in this manner once per Activation or action, and degrades when the Activation or action has resolved. Certain effects (such as DEMO and EXO Payloads) can modify the rate at which Cover degrades or inflict a special effect on Cover.

Cover blocks LOS if the combined Density of all Cover along the LOS is 4 or greater.

For instance, a pair of Anvils – a Copperhead and an Afalina – face off with a source of Cover 3 in between them. The Cover does not block LOS, and so they have LOS to each other. The Copperhead attacks, Activating its M110 Assault Rifle, and rolls 2 successful Hits and 1 unsuccessful Hit. Each Hit deals 7 KE damage. Because the LOF passes through the Cover, the damage of each Hit is reduced by 3, to a paltry 4 KE, which deals negligible damage to the Afalina's armour. The Cover absorbed three Hits (the one that missed still goes through the Cover), but because they all occurred in the same Activation, the Cover Density is only reduced by 1.

TERRAIN

Battlefields in the late 20th century are as diverse as the units which traverse them. **Terrain** effects only apply to Units when they occupy that Terrain hex. Some types of Terrain apply their effects anytime a Unit occupies that hex, while other types apply their effects when a Unit ends its Turn on that hex.

Terrain comes in the following forms:

FLATLAND

Even, stable ground, perfect for any ruggedised vehicle.

Flatland hexes cost no additional MS to enter. Wheeled Units gain 1 Speed when generating Cruising or Flanking Speed.

PAVEMENT

Smooth tarmac and roadways.

Units which terminate movement after Flanking or change Facing while Flanking must cast 1d6 Par 2. On a failure, they Sideslip. Wheeled Units gain 1 Speed when generating Cruising or Flanking Speed. Hover Units treat Pavement as Flatland.

ROUGH

Tough, uneven ground, perhaps made of rubble.

Rough hexes cost 1 additional MS to enter. Tracked Units treat Rough Terrain as Flatland.

BROKEN

Massive stones, overgrowth, or dragon's teeth.

Broken hexes cost 2 additional MS to enter. Hover Units may not enter Broken hexes.

MUD

Sticky, sloppy, sodden earth that clings to man and machine alike.

Units which terminate movement or change Facing must cast 1d6 Par 4. On a failure, they suffer the Stuck Condition. Hover Units treat Mud as Flatland.

SAND

Rough, coarse, and it gets everywhere.

Units which terminate movement or change Facing must cast 1d6 Par 4. On a failure, they suffer the Slow Condition. Hover Units treat Sand as Flatland.

ICE

Slick, glassy sheets that look deceptively trekkable.

Units which terminate movement after Flanking or change Facing while Flanking must cast 1d6 Par 6. On a failure, they Sideslip. Units which Sideslip on Ice must cast 1d6 Par 6. On a failure, they Sideslip. Hover Units treat Ice as Flatland.

SNOW

Powdery or icy, and always very cold.

Units which track Heat increase their Cooling by 2. Units increase their Manoeuvre Cost by 1. Hover Units treat Snow as Flatland.

SCRAP

Metallic detritus or simply a heap of garbage.

Scrap hexes cost 1 additional MS to enter. Units gain the Obscured Condition. Tracked Units ignore the MS penalty.

MAGNETIC

Radiological, perhaps, or simply charged with electricity.

Units which enter a Magnetic hex must cast 1d6 Par 4. On a failure, they suffer ERR: COM. Units only check for this effect once per Round.

GEOTHERMAL

A wellspring of heat from the bosom of the earth.

Units which track Heat and end their Turn on a Geothermal hex gain 2 Heat. Units gain 2 DV versus Activations benefitting from the Infrared Targeting Type.

DEFILADE X

A natural cleft in the earth or an engineered work.

Units of Height X or lesser gain 1 DV. DEMO Payloads that damage Defilade hexes convert them to Rough Terrain.

PROTECTED X

Thick vegetation or constructed bulwarks.

Units add X to their Resistances versus Activations originating from their Nose and Forward Arcs. This effect stacks with other Resistance-boosting effects, such as Frontal Armour.

BARRIER X

Anti-ballistic latticework or congested, drooping vines.

Barrier hexes provide X Cover but do not block LOS. Barrier hexes cannot be entered unless the Unit is Jumping or flying. Units which attempt to occupy a Barrier hex on any Level higher than its Elevation (by landing on it, or moving onto its top) reduce its Density to 0 and fall. Barrier hexes are Height 3 unless otherwise specified.

WOODS AND JUNGLE

Trees are a common sight on almost every battlefield, from rickety, ossified desert-dwelling types to lush, voluminous alpine behemoths. Units may take advantage of **Woods** and **Jungle** Terrain to hamper the effectiveness of incoming weapons fire and break LOS. Enterprising Units can even use Woods and Jungle as camouflage, lying in wait for the perfect opportunity to launch a surprise attack.

Woods and Jungle both provide Cover and degrade into Rough Terrain when their Cover value is reduced to 0.

WOODS X

Tall trees and clustered bushes which make for natural armour.

Woods provides Cover equal to X. Woods hexes cost 1 additional MS to enter. Hover Units must spend 2 additional MS to enter Woods hexes. EXO Payloads add the Burning Terrain type to Woods hexes. DEMO Payloads set X to 0 when the Activation resolves. Woods hexes are Height 3 unless otherwise specified.

JUNGLE X

Dense, dripping canopies thick enough to hide the sun.

Jungle provides Cover equal to X. Jungle always blocks LOS. Jungle hexes cost 1 additional MS to enter. Hover Units must spend 2 additional MS to enter Jungle hexes. EXO Payloads add the Burning Terrain type to Jungle hexes. DEMO Payloads set X to 0 when the Activation resolves. Jungle hexes are Height 5 unless otherwise specified.

WATER

Water can be combined with all Terrain types except Lava. When another Terrain is combined with Water, that Terrain is considered to be at the bottom of that Water hex's **Depth** unless otherwise specified by the Battlemat or the Coordinator. Flowing Water and Rapid Water are considered to apply to every Level from the Water's surface to the Water's Depth.

Depth is measured in Levels and is independent of Elevation. The Elevation of a Water hex determines where its surface is, while its Depth determines where its bottom is. Depth is always a positive integer.

Units which enter a Water hex with a Depth greater than half their Height automatically suffer the Power Down Condition and cannot Power Up until they are rescued. Units which hover, or are amphibious, or otherwise built for water travel (such as boats) may safely enter Water hexes without such restrictions.

For instance, Depth 3 Water on a Level 3 hex has a surface at Level 3 and a bottom at Level 0. If Rough Terrain is applied to this hex, the Rough Terrain only applies to the Level 0 bottom, and not the Level 1, 2, or Level 3 surface. If an Anvil were to enter this Water hex, its engine would flood, and it would immediately Power Down. The pilot might be okay, but will have to explain to a very unhappy salvagier why he decided to turn his 10-million-Mona machine into a submarine.

WATER

Gentle or tumultuous, a calm river or a vicious tide.

Water hexes of Depth 1 or greater cost 1 additional MS to enter. Flanking Speed may not be used to enter Water hexes of Depth 1 or greater. Units which track Heat increase their Cooling by 5 when occupying a Water hex of Depth 1 or greater. Units increase their Manoeuvre Cost by 1. Hover Units ignore these rules and treat Water hexes as Flatland.

FLOWING WATER

With greater speed and purpose.

Before the Sortie starts, choose a direction for the Flowing Water to flow. Units which enter Flowing Water hexes must cast 1d6 Par 4. On a failure, that Unit Sideslips in the direction of flow. Flowing Water hexes of Depth 1 or greater cost 1 additional MS to enter. Flanking Speed may not be used to enter Flowing Water hexes of Depth 1 or greater. Units which track Heat increase their Cooling by 5 when occupying a Flowing Water hex of Depth 1 or greater. Units increase their Manoeuvre Cost by 1. Hover Units ignore these rules and treat Flowing Water hexes as Flatland.

RAPID WATER

With unyielding speed and dire purpose.

Before the Sortie starts, choose a direction for the Rapid Water to flow. Units which enter Flowing Water hexes must cast 1d6 Par 5. On a failure, that Unit Sideslips in the direction of flow. Units which Sideslip as a result of this die must roll another one and repeat the process. Rapid Water hexes of Depth 1 or greater cost 1 additional MS to enter. Flanking Speed may not be used to enter Rapid Water hexes of Depth 1 or greater. Units which track Heat increase their Cooling by 5 when occupying a Rapid Water hex of Depth 1 or greater. Units increase their Manoeuvre Cost by 1. Hover Units ignore these rules and treat Rapid Water as Rough Terrain.

LAVA

Unlike other Terrain, **Lava** hexes cannot be combined with other types of Terrain except for Rough and Burning. Lava hexes are rare to find on a Battlemat, but are very dangerous and should be treated with caution.

LAVA

Bubbling, boiling, beckoning molten rock, sizzling and searing the land.

Lava hexes cost 1 additional MS to enter. Flanking Speed may not be used to enter Lava hexes, even as part of Minimum Movement. Hover Units ignore these two rules. Units take 10 Special damage to their Mobility Base (or equivalent) when entering a Lava hex. Units which track Heat gain 5 Heat when entering a Lava hex. Units which do not track Heat take 5 Special Damage to their Mobility Base (or equivalent) instead. Units increase their Manoeuvre Cost by 1.

BURNING

Burning Terrain is unique in its ability to overlay onto hexes, even if that hex has two Terrain types already. Burning Terrain can overlay onto any Terrain except Water, Flowing Water, Rapid Water, Ice, or Snow. If a hex obtains one of these Terrain types while it is also Burning, the Burning Terrain is removed immediately.

BURNING

Dancing firelight, beautiful and terrible to behold.

Units which enter or start their Turn in a Burning hex take 3 Heat. Burning hexes are applied to and overlaid on existing hexes. When a Burning hex is overlaid onto a hex, that hex converts into Rough Terrain at the end of the current Round. Burning hexes that interact with COOL Payloads cease to be Burning and the hex they were overlaid upon returns to its most recent state.



A detachment of the Polish Army patrols the border between Poland and Russia. Even before the events of Y2K, tensions between the two countries occasionally boiled over into brief skirmishes. All-out war seemed like a distant fantasy...

STRUCTURES

Many battlefields feature military, civilian, and commercial architecture, from hangars to houses to elevated roadways. These Objects are known as **Structures**.

Structures come in two distinct types, which play by slightly different rules: **Normal Structures** and **Robust Structures**.

Normal Structures are not designed to absorb punishment from weapons fire. They provide Cover and have a Cover Density, and their hexes cannot be entered normally. Units which occupy a Structure and benefit from its Cover (i.e., not standing on its roof) do not include the Cover they occupy for determining LOS.

Robust Structures are either explicitly or incidentally designed to resist heavy firepower. They always block LOS and have AP and Resistances instead of Cover Density. Robust Structures may not be entered normally.

DURABILITY

All Structures can receive a limited amount of punishment before they collapse. When Structures collapse, they become Rough Terrain. Structures collapse as soon as the Activation or action which caused them to collapse resolves, and remain collapsed for the rest of the Sortie.

Structure hexes take damage individually even if they are part of the same overall Structure.

For instance, a Structure that is 3 hexes long counts as a single Structure, but each of its hexes absorbs and tracks damage individually. This can result in Structures having different Cover Density or AP values, so keeping track of this is important.

Structures comprising more than a single hex collapse entirely if half or more of their constituent hexes collapse.

Normal Structure hexes collapse when their Cover Density reaches 0. Robust Structure hexes collapse when their AP reaches 0.

For instance, a Normal Structure made up of four contiguous hexes, each with a Cover Density of 1, is struck by an artillery shell. The shell goes a little long, and so the attack Hits only 2 out of 4 hexes. The damage is sufficient to collapse those two hexes, and even though the other two were not Hit, they also collapse, as the Structure has lost half of its hexes.

SUPPORTING WEIGHT

Units of any **Gross Weight [GW]** can enter a Structure if travelling on its floor, as long as that Structure can accept Units (like a garage) or the Unit is small enough to enter (such as when using the Compact Trait). Units which enter a Structure at any other Level, including the roof, collapse that Structure hex unless the Structure is strong enough to support them. Anvils and other large Units typically cannot enter Structures.

Normal Structure hexes can support Gross Weight up to their Cover Density multiplied by 5. This means that a Normal Structure with Cover Density 5 can support up to 25 Standard Tons of Gross Weight.

Robust Structures can support Gross Weight up to their remaining AP value multiplied by 2. This means that a Robust Structure with AP of 30 can support up to 60 Standard Tons of Gross Weight.

Units which collapse a Structure under their Gross Weight take fall damage. Fall damage is based on the falling Unit's highest point and lowest point, which means Structures do not break falls.

For instance, if an Anvil at 10 Elevation walked off of a cliff onto a Height 9 Structure at 0 Elevation, and that Structure could not support the Anvil's Gross Weight, the Anvil would take fall damage based on its descent from Height 10 to Height 0. As the Anvil is Height 3, it can fall 3 Levels without taking damage, but the remaining 7 Levels deal a whopping 70 S damage to its Mobility Base and 35 S to all other Components. For most Anvils, this is instant death.

HEIGHT AND ENTRY

Structures always have a Height of at least 1. When determining whether or not a Structure blocks LOS, add its Height to the Elevation of the hex it occupies, as if determining LOS through Terrain. The Height of a Structure includes its roof, which is a surface that Units and Objects may occupy at that Elevation, much like how Terrain works.

Units may not typically enter Structure hexes unless they move onto the Structure's roof, in the same way that Units may not enter Terrain hexes unless they can move along that Terrain's surface. Certain Structures may specify that Units can enter their hexes at a Level lower than their roof.

For instance, if a Height 3 Anvil wanted to enter the hex of a Height 3 Structure, it would be unable to do so unless it was at the same Elevation as the Structure. If the Anvil was at 1 Elevation and the Height 3 Structure was at 0 Elevation, the Anvil would be able to ascend to the roof of the Structure by spending 1 additional MS. If the Anvil was at 2 Elevation and the Height 3 Structure was at 0 Elevation, the Anvil would be able to move onto the Structure's roof without spending any extra MS. Naturally, if the Anvil was at 3 Elevation or higher, it would be able to move onto that Structure's roof without any issues.

Units that occupy a Structure on its roof do not benefit from that Structure's Cover. Units which occupy Structures and contain half or more of their Height within the Structure benefit from its Cover.

For instance, a Height 2 GP enters a Height 1 Structure designed to accept Units, and so occupies the Structure on the hex at the Level the Structure occupies. In this case, the Unit is partially covered by the Structure – half of the Unit's Height remains inside the Structure, while half of it sticks out of the top. The Structure's Cover applies to this Unit. If the Unit were to occupy this Structure's roof, it would lose the benefits of that Structure's Cover.

Units may not ascend or descend Structure hexes when they are inside of them, even if they can Climb, unless such a Structure specifies such a rule. Units must Climb Structures when they are adjacent to a Structure hex and not within a Structure hex (though they may occupy a structure hex on its roof).

Structure roofs count as Flatland Terrain unless otherwise specified.

CEILINGS

Certain types of Structures, such as hangars, archways, and bridge spans, have empty space underneath or inside of them, allowing Units to move freely, as long as they can fit. These types of Structures have **Ceilings**.

Structures which have a Height greater than 1 may have a Ceiling, which is denoted as a second value attached to the Height value in an XCY format, where "C" denotes a Ceiling.

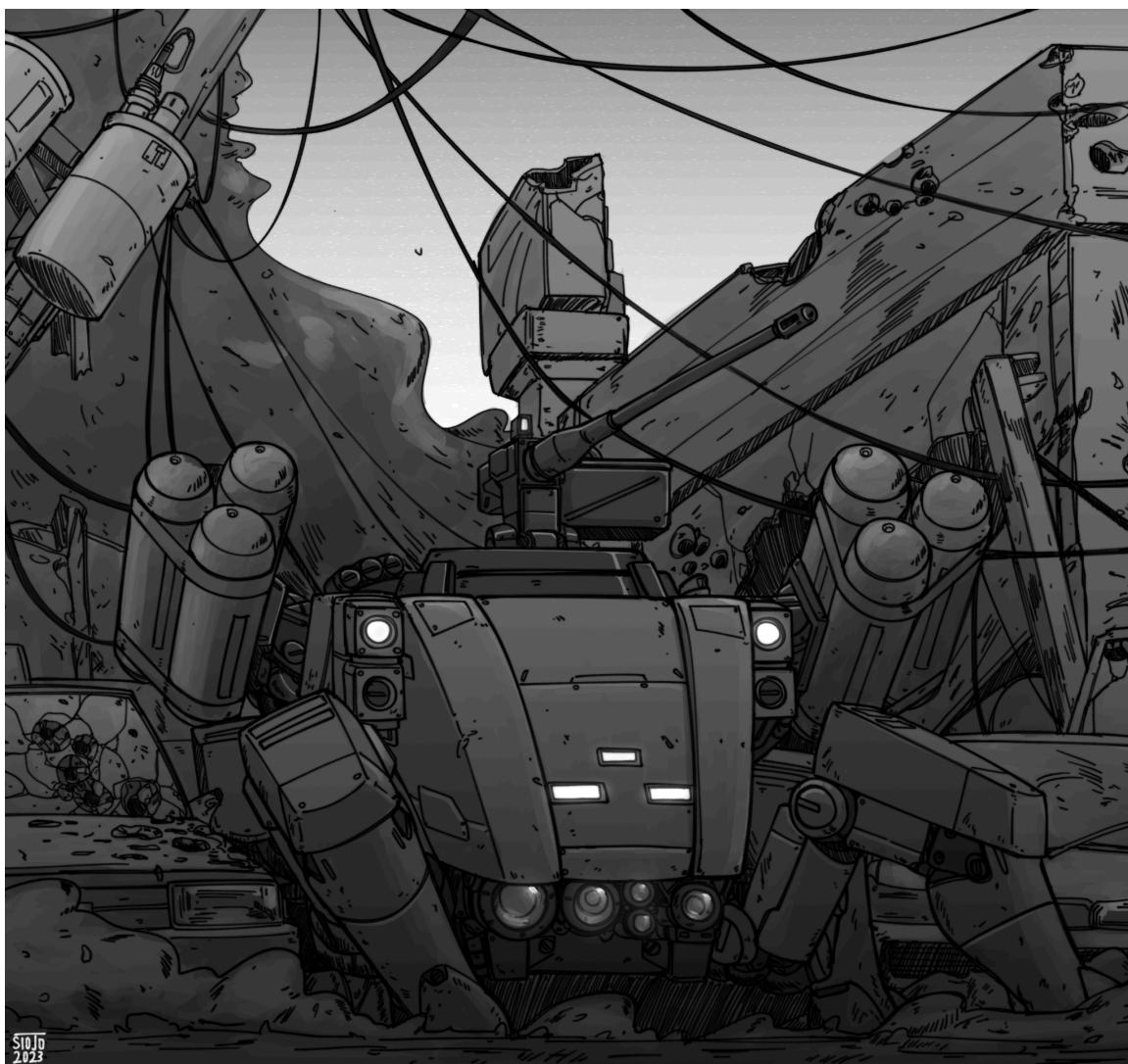
For instance, an archway with a Ceiling and a Height of 4 would be notated as Height 4C3. This means any Unit of Height 3 or lesser can enter this hex at its floor Level.

Ceiling hexes do not block Line of Sight and do not provide Cover against direct attacks, even if the Structure otherwise provides Cover. Units may move on a Ceiling's roof as if it were a regular Structure hex.

Ceilings cannot be the same Height as the Height of their parent Structure hex. A Structure cannot be Height 4C4. Ceiling values also cannot be 0, and cannot be negative. When a Ceiling collapses, it forms Rough Terrain as usual, and any Unit occupying the Ceiling hex when it collapses takes 5 S damage to all Components. Units which occupy the Ceiling's roof when it collapses do not take this additional damage.

Ceilings provide their Cover value against indirect attacks if the indirect attack's target is occupying the Ceiling hex and not on its roof, or if the indirect attack draws its LOF through a Ceiling hex that is adjacent to the defender, and that Ceiling hex has a Height greater than the defender. Such attacks strike the Ceiling instead of the target.

For instance, a Height 1 M60 tank idles in a riverbed adjacent to a bridge, which is Height 2C1. An enemy indirect attack targets the M60 from the other side of the bridge, and so draws its LOF through a Ceiling hex. Because the bridge (Ceiling) hex is tall enough, the attack's LOF enters the Ceiling hex and detonates on it, protecting the tank. If the tank had been one hex further away from the bridge, the attack would have connected.



NAV Type04 Vixen, lying in wait for unsuspecting foes

THE FORECAST



Leytenant Stolyarchuk was dismayed. Not only was he thousands of kilometres from home, not only had he been thoroughly soaked, baked, frozen, and harassed by swarms of insects, not only had his first assignment already gone off the rails, but the sole individual who enjoyed authority over him was nowhere to be found.

Stolyarchuk asked the engineers and the logisticians and the tankers and even the cook. Nobody had seen Kapitán Kiselyov anywhere. He was not with the maintenance group, tending to his Anvil. He was not in his tent, snoozing as the sun rose above the African continent. He was not behind a bush, squatting and cursing the Soviet state for barely-edible rations. He was, Stolyarchuk had come to find, a ghost.

"Leytenant," thrummed a thick, Moscovian drawl from behind Stolyarchuk. The junior officer jumped.

"Kapitán Kiselyov!"

"At ease, man," Kiselyov commanded with a careless salute. Compared to the narrow, aerodynamic features of the blonde, boyish Stolyarchuk, the swarthy Kiselyov decorated himself with countless battles, against Arabs and Africans, against alarm clocks and shaving razors... each more deadly to his lifestyle (and survival) than the last.

Kapitán Kiselyov ambled over to his subordinate and threw an arm around him. A tangy odour wafted from the grizzled veteran. Stolyarchuk prayed for relief as his superior frog-marched him to the maintenance group, where a pair of Anvils sat ready to be piloted. Dust swirled in the morning breeze, a brief respite from the crushing cold of African night, and the horrible heat of African day. It did little to dispel the stench emanating from Kiselyov.

"Up here," Kiselyov grunted, hoisting himself onto his Anvil's Mobility Base. What began life as a stock Vitrilnik now looked nothing like a Commander: heavy cannons slung on the shoulders and a wicked blade, blunted and serrated through years of hard work, made for an imposing image. Stolyarchuk glanced at his own Anvil, a modest Vodnyavuk without so much as a custom emblem, unlike the cannon-toting camel emblazoned on his superior's Anvil.

Kapitán Kiselyov reached for something. He withdrew a long, silver rod from a small hatch located near the aft of the Vitrilnik chassis. He examined it, sniffed it, tasted it...? He set produced a flask and a rubber hand-pump. One-two, one-two, and the flask filled with clear, thin liquid which glistened like silver in the dawn.

"Shpaga," Kiselyov uttered. He tossed the flask to the Leytenant, whose surprise caused him to nearly fumble it. "These machines need no de-icer. We will take it instead. Drink. The day will go by faster."

Suppressing a shiver as the last vestiges of cold night gave way to the inevitable heat of the day, Stolyarchuk wondered if this was yet another hazing ritual. His superior tipped his own flask to his mouth and drank long and happily.

A heavy drop of rain slapped Stolyarchuk on the nose. He abandoned his superior to find cover, stashing his flask of alcohol in his coat. Mechanics and logisticians ran this way and that as the rain swiftly intensified, and Stolyarchuk, watching from the mouth of a soaking tent, could see Kapitán Kiselyov still standing next to his Anvil, drenched. Leytenant Stolyarchuk thought he heard the man singing.

Surely it couldn't get any worse.



Numerous factors can affect the battlefield, from hazy morning fog to pitch-black night to heavy rain to miles-wide dust storms. These conditions test the mettle (and Mettle) of every combatant on the field. There are three major factors to a battlefield's condition: **Light**, **Weather**, and **Temperature**.

LIGHT

Combat doesn't always take place in the sunny daytime. Night fighting is ruthless and rigorous even under the best circumstances. Depending on the battlefield's Light, **Occlusion** may be present. Occlusion is usually a Battlemap-spanning effect which affects all participating Units regardless of allegiance. Every point of Occlusion negates the duplicate successes of one result of 6 in a cast dice pool.

For instance, if a cast dice pool rolled 2, 3, 4, 5, 6, 6 under 1 Occlusion, the first result of 6 would only count as one success, resulting in a total success count of 5 (assuming Par 4).

Time of Day and its Occlusion come in the following forms:

BRIGHT LIGHT

A lovely day to wage war, or perhaps a well-lit indoor arena.

All Units which occupy Bright Light have no Occlusion.

LOW LIGHT

Long shadows and slant light slightly hamper combat.

All Units which occupy Low Light gain 1 Occlusion.

DARKNESS

Ambient light and the glow from headlights help pierce the gloomy veil.

All Units which occupy Darkness gain 2 Occlusion. STENO cannot identify Units in Darkness unless within 10 hexes to the requested Unit.

PITCH BLACK

Combat is an arduous task without flares and thermal sights.

All Units which occupy Pitch Black gain 3 Occlusion. STENO cannot identify Units in Pitch Black unless adjacent to the requested Unit.



Only one type of Light can be present on a hex – that is to say, a hex cannot have both Bright Light and Darkness at the same time.

Occasionally, Occlusion may differ from one part of the Battlemap to another. Entering a dark warehouse can impose Low Light conditions even if it's Bright Light outside. Occlusion can be circumvented by using the proper equipment. Infrared targeting and illumination rounds can turn night into day and make fighting in low-visibility conditions much more tolerable.

The time of day will naturally affect Light and therefore Occlusion. It depends on which part of the world you're in, but generally daylight is Bright, twilight is Low Light, nighttime is Darkness, and particularly cloudy, moonless nights are Pitch Black.

WEATHER

Planning an attack for a certain time of day is fairly straightforward. Contending with the **weather** is a bit trickier. Different **Weather** types have different effects. Weather only affects entities within its area of effect (which may be the entire Battlemat or a specific section of that Battlemat).

Weather comes in the following forms:

CALM

Mother Nature gently reposes.

No effect.

STRONG WINDS

Powerful winds in excess of at least 30 knots blow across the battlefield.

Before the Sortie begins, choose a wind direction by rolling 1d6. Indirect attacks which miss their targets Drift 1 additional hex in that direction. Additionally, Ballistic weapon Activations lose 1 Accuracy. Energetic and Melee weapon Activations are unaffected. OBS Payloads and TOP Functions have their effects nullified. This Weather counts as Calm for Optical Targeting Types.

STEADY PRECIPITATION

A persistent rain or snow falls on the battlefield.

Gas- and Liquid-Cooled Units gain 2 Heat Tolerance. TE damage is reduced by 2. EXO, OBS, and ILUM Payloads have their effects nullified. Tracking and Laser Targeting Types may only apply their effects to Laser-Guided and Semi-Guided Payloads, and such Payloads cannot have a Par below 4.

HEAVY PRECIPITATION

A torrent of rain or a vicious blizzard drenches the battlefield.

Gas- and Liquid-Cooled Units gain 4 Heat Tolerance. Energetic weapons reduce their Range by 10 and TE damage is reduced by 5. If this brings the weapon's Range down to 0, the weapon may not be Activated. EXO, OBS, and ILUM Payloads have their effects nullified. Locked and Painted Conditions may not be applied to targets within an area of Heavy Precipitation. STENO cannot identify Units in an area of Heavy Precipitation unless adjacent.

ELECTRICAL STORM

Lightning crackles through the sky, lighting up the battlefield.

At the start of each Round, cast 1d6 Par 5. On a success, bolts of lightning intermittently illuminate the entire Battlemat, changing the Light to Bright Light until the end of the Round. Additionally, all Units suffer ERR: COM, as the clap of thunder temporarily deafens personnel and electronics alike.

AIRBORN PARTICULATE

Sand, ash, or some other material has been stirred up into a massive cloud.

Occlusion increases by 1 for every 5 hexes a direct or indirect attack travels. The damage of such attacks decreases by 1 for every 5 hexes travelled as well. PEN Payloads have their effects nullified. Locked and Painted Conditions may not be applied to targets within an area of Airborne Particulate. Gas-Cooled Units lose 4 Heat Tolerance. STENO cannot identify Units within an area of Airborne Particulate unless within 5 hexes.

LOW CLOUDS

The day is overcast, making aircraft difficult to see.

Attacks which enter or exit the Low Altitude Zone treat targets as having 99 Occlusion. This Weather counts as Calm for Optical Targeting Types.

GLARE

Glinting sun or specular reflections play hell with targeting systems.

Ballistic and Energetic weapons gain Deadzone 3 or extend an existing Deadzone value by 3. Melee weapons are unaffected. STENO cannot identify Units in an area of Glare unless adjacent.

SHIMMER

Scintillating mirages fool sensors into seeing what isn't really there.

Weapon Activations against targets in LOS and 10 or more hexes away raise Par by 1. The Locked Condition may not be applied to targets within an area of Shimmer. STENO cannot identify Units in an area of Shimmer unless within 10 hexes.

FOG

A thick blanket of clouds or mist hangs heavy on the battlefield.

Units gain the Obscured Condition. OBS and ILUM Payloads have their effects nullified. The Painted Condition may not be applied to targets within an area of Fog. STENO cannot identify Units in an area of Fog unless adjacent.

ELECTROMAGNETIC INTERFERENCE

A disturbance in the broad electromagnetic spectrum cakes the battlefield with noise.

Units gain the JAMMED and SUPPRESSED Conditions. EMI Payloads and CTR Functions have their effects nullified. BOMB Payloads may not be Activated unless they are Hit.

INSECT SWARM

Locusts, mayflies, or some other form of chittering biblical curse infests the battlefield.

Whenever a Unit spends EN or Charge, it must spend 1 additional EN or Charge. Hexes affected by Insect Swarm have this effect nullified until the end of the current Round when Hit by LIN or PRJ Functions, or by BLS, CLS, or SHK Payloads. All Radars, Radios, and LCAs are considered to be JAMMED (regardless of the effect being nullified). Gas-Cooled Units lose 4 Heat Tolerance. STENO cannot identify Units within an area of Insect Swarm unless adjacent or the effect in the target's hex has been nullified.



Multiple types of Weather may be present at a single time, such as Strong Winds and Airborne Particulate to simulate a sandstorm, but it is recommended that no more than three be combined at once. Too many Weather conditions can be difficult to keep track of. Usually, a single Weather type, combined with a Temperature and Light level, will suffice.

TEMPERATURE

The climate of most battlefields varies from chilly to warm, though the most commonly encountered **Temperature** is usually pleasant and temperate. However, both regular armies and irregular outfits are no strangers to the demands of extreme temperature operations. Temperature only affects entities within its area of effect (which may be the Battlemap or a specific section). Temperature primarily affects how Units handle Heat, but at the extreme ends of the scale, it can affect all Units negatively.

As with Light, a hex can only ever be affected by a single Temperature at a time. Different areas on the Battlemap may have different Temperatures (such as the pit of a stirring volcano versus its caldera rim). Players are aware of these Temperature changes before they enter a hex with a different Temperature than the one they're currently in, and the effects happen immediately.

Temperature comes in the following forms:

POLAR

The air is cold enough to freeze your finger in your nose.

Units take an additional 2 damage from all sources of KE, CE, and TE damage. Units which track Heat gain 10 Heat Tolerance. Units with Gas Cooling reduce their base Cooling value to 8. Units with Liquid Cooling reduce their base Cooling value to 8. Units with Plasma Cooling reduce their base Cooling value to half of their Heat Tolerance. Units which do not track Heat are permanently Slow.

COLD

You can see your breath, but in the gently-vibrating cockpit of an 8 metre tall robot, it's pretty comfortable.

Units which track Heat gain 2 Heat Tolerance. Units with Gas Cooling increase their base Cooling value to 14. Units with Liquid Cooling dissipate an additional 2 Heat after halving their Heat. Units with Plasma Cooling do not modify their Cooling value.

TEMPERATE

The temptation to crack the hatch and let the breeze in is almost overwhelming.

All Units retain their basic Cooling values (12 for Gas Cooling; half of current Heat for Liquid Cooling; current Heat for Plasma Cooling).

HOT

Sweat gets in your eyes and turns your seatback into a soggy sponge.

Units which track Heat lose 2 Heat Tolerance. Units with Gas Cooling decrease their base Cooling value to 10. Units with Liquid Cooling gain an additional 2 Heat after halving their Heat. Units with Plasma Cooling do not modify their Cooling value.

EQUATORIAL

The air is hot enough to turn spit into steam, if you had any spit left.

Units lose 1 Mettle. Units with Gas Cooling reduce their base Cooling value to 8. Units with Liquid Cooling reduce their base Cooling value to 8. Units with Plasma Cooling reduce their base Cooling value to half of their Heat Tolerance. Units which do not track Heat are permanently Slow.

DEPLOYMENT

Deployment Zones [DZ] are a multi-tiered collection of starting areas set on the Battlemat according to the scenario. Units begin a Sortie by deploying into their **DZ**. Units are placed into their appropriate DZ before Round 1 begins. Available DZ options are based on a Unit or Platoon's Initiative. Units with a higher Initiative than required for a DZ may deploy in that DZ if they wish.

Players and Coordinators may make use of the following DZs:

RED DZ [RDZ]

The Coordinator uses the RED DZ to deploy starting forces that the players can see before they deploy into their own DZs.

ORANGE DZ [ODZ]

The Coordinator uses the ORANGE DZ to mark reinforcement vectors. Players may or may not be aware of these DZs before the Sortie begins.

YELLOW DZ [YDZ]

The Coordinator uses the YELLOW DZ to mark a special ingress or egression point. YELLOW DZs are generally reserved for scenario-based Sorties and may be used by some or all participants.

GREEN DZ [GDZ]

The players use the GREEN DZ to deploy Units with Initiatives of 0 through 2. GREEN DZs are usually the most restricted.

BLUE DZ [BDZ]

The players use the BLUE DZ to deploy Units with Initiatives of 3 through 5. BLUE DZs offer some better early positioning to quick Units.

PURPLE DZ [PDZ]

The players use the PURPLE DZ to deploy Units with Initiatives of 6 through 8. PURPLE DZs offer excellent early positioning to fast Units.

SPECIAL DZ [SDZ]

Units with Initiative of 9 or greater may deploy anywhere on the Battlemap as long as they are at least 6 hexes away from all visible hostile Units.



XT-1G Roswell and dismounted infantry, waiting for the green light

THE ANVIL



Jack Hammer : *"Isn't that just great? Everyone loves a happy ending. Now, folks, next up, I've got someone really special here for you tonight, really special. She's come all the way from Nicaragua, so please give a hearty hand to the one and only Samantha Smyth!"*

Chief Warrant Officer Samantha "Jetsam" Smyth enters the studio to loud applause and cheering. She's dressed in her usual leather bomber jacket and polished black sunglasses, and she waves casually to the crowd. She shakes Jack's hand and sits in the interview chair, reclining as if she were at home.

Samantha Smyth : *"Thanks, Jack. Great to be on the program."*

JH : *"And it's great to have you on. Now tell me something, Miss Smyth, did the callsign Jetsam come before or after you built a robot that floats on water?"*

SS : *"Well, Jack, actually, to tell the truth, it's got nothing to do with Suzy Q. The boys gave me that name when I was in the Academy, the one in New Mexico? So everyone calls me Sam, and I spent a lot of time at the pool. It gets hot in the desert, you know?"*

JH : *"Uh-huh."*

SS : *"And so one day I'm out there swimming, cooling off, doing breath training, and I'm flipped over face-down, timing myself on how long I can hold my breath. Well, I guess I wasn't moving, and before I know it there's two lifeguards wrestling me out of the water."*

JH : *"Well I guess 'Jetsam' beats 'Driftwood!'"*

The audience erupts with laughter.

SS : *"Those Academy boys really know how to call 'em. The name stuck, and when I got online, that's what everyone called me."*

JH : *"Now, I've heard the Anvil, this – miracle machine, people say – the Anvil is like a modern knight on horseback. Does that ring true for you, Miss Smyth?"*

SS : *"It's all over the recruitment posters, but really, that sells the Anvil short. Sure, you might carry a little less armour than a tank, or a little less firepower than a gunship, but you're [expletive]-damn close to 'em. Cavalry is just one job an Anvil can do. It's a knight, it's a catapult, it's a linebacker–"*

JH : *"And what is your, uh, Susquehanna, was it? What's it designed for?"*

Jetsam points a pair of finger guns at Jack, then the audience, to their approval.

SS : *"High speed gunning. Not like those slowboats with legs. Move fast, kick ass."*

JH : *"And they let you build your own? How– How does that go?"*

SS: *"If you do well enough in Academy, FARCOM'll let you keep your Anvil, or most of it, when you get assigned. After that, it's all paperwork. We have a saying that goes something like, 'the paperwork has to weigh as much as the Anvil before it's ready.' Lotta truth to that."*

JH: *"And, now, you choose your assignments, or are they handed to you?"*

SS: *"A lot of both. I've done Free Agent and Chain work, but these days it's a lot of Headhunting."*

JH: *"Headhunting? Can you go into that?"*

SS: *"Sorry, Jack, that's classified."*

JH: *"You can tell me, but then you'd have to kill me? I'll see if 'run over by a giant robot' is covered by my insurance during the break."*

The audience laughs and claps.

JH: *"Now, folks, we've got a special promotion here tonight with Miss Smyth. What we're gonna do, is we're gonna play a little game, here. Go ahead and look under your chairs, folks, and get that little card there. Open it up, and show me who got green ones."*

The audience obeys. Three people have a green card. The rest have blank ones.

JH: *"Alright, wonderful! Now, those of you with the green cards, come on down to the stage, would you? You've got a chance to win a wonderful, one-of-a-kind prize tonight, really unique. Come on down, now!"*

The green card holders move down to the stage. They are all very excited. Jetsam stands to shake their hands. Jack moves them into a line and walks to the first contestant while the house band plays a gameshow jingle.

JH: *"Aright, alright! Now, sweetheart, what's your name?"*

Emily Kramer: *"Emily!"*

JH: *"And you came all the way from the Windy City to see Miss Smyth tonight?"*

EK: *"Yeah! I've got all her posters! I was at the book signing too—"*

JH: *"Really dedicated, Emily, that's great! Now, sir, what's your name?"*

Bart Bartenfelder: *"Bart Bartenfelder, Jack."*

JH: *"Now that's one too many 'barts' in that name."*

The audience roars with laughter. Bart laughs too.

JH: *"And our final contestant, what's your name, little lady?"*

Jo-Ann Jackson: *"Jo, but honey, you can call me whatever you want."*

Jack performs his trademark eyebrow raise at Camera 2. The audience whoops and catcalls.

JH: *"Our three lucky contestants have got a chance to win a really swell prize tonight. All they have to do is guess a number! Not just any number, but a special number, and that number is one I've got right here, and one I'm*

sure Miss Smyth has memorised. And the number each of you needs to guess is... what is the top speed, in miles-an-hour, of Miss Smyth's beloved Anvil, Susquehanna? Closest wins!"

The audience is noisy and excited. The contestants are eager to begin. Jetsam stands at a casual parade rest.

JH : *"And what do you win? Well none other than an all-expenses-paid-for vacation to lovely Bermuda!"*

The contestants brim with excitement as the studio announcer plays over the intercom.

Studio Announcer : *"That's right, Jack. One lucky winner and a family member of their choice will win a vacation package to Emerald Shoal Resort in the Bermuda Islands! Enjoy three days and four nights of fine dining, waterside massages, jet-skiing, and more! Our lucky winner will also get to ride along with Miss Smyth in her high-speed Anvil, Susquehanna, for an unforgettable experience of a lifetime!"*

The electricity in the room is nearly palpable. Emily appears ready to faint.

JH : *"Alright, alright! Starting with you, Jo. What is the top speed of Susquehanna, in miles-an-hour?"*

JJ : *"Oh, Lord, you might as well be askin' me for— I don't know, uhm... a hundred?"*

JH : *"And you, Bart-times-two?"*

BB : *"Well, Jack, I'd say based on other heavy vehicles like that, roundabout forty-five or so."*

JH : *"And Emily, you look like you might be ready to jump out of your skin."*

EK : *"Sixty-one!"*

Jack checks his card. Jetsam laughs cheerfully.

JH : *"Got it in one! Great job!"*

Emily dances maniacally on the stage. The other contestants and the audience clap. Jack says some inaudible things to them and the contestants return to their seats.

JH : *"Now, wasn't that fun? Let's go to the break, and we'll be back to talk some more with Miss Smyth! Keep that dial turned to the Jack Hammer Show!"*

An advertisement for gold, silver, and lunar titanium capital begins.

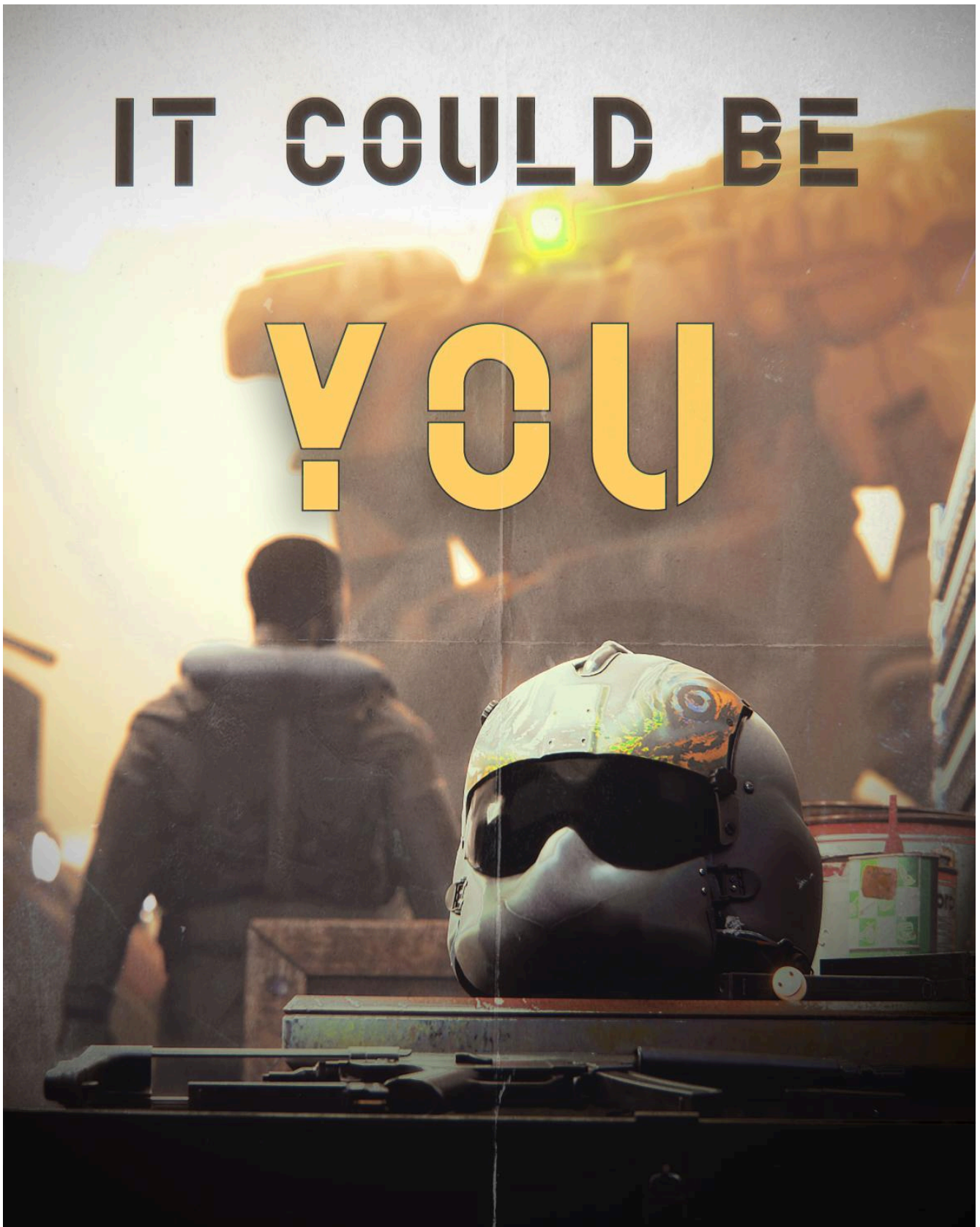
– The Jack Hammer Show, Episode 373 (transcript), 1998
Televised interview with Susquehanna ace pilot Samantha "Jetsam" Smyth











The Anvil is heralded by many as the king of the modern battlefield. It forms the spearhead, anchor, and vital chainlinks of national armies, irregular outfits, and mercenary companies alike. Anvils make an imposing impression, standing up to 8 metres tall and bristling with power even when relieved of their weapons. There is nothing the Anvil cannot conquer, or so many believe.

COMBAT TASKS

Compared to the more inflexible, doctrinally-centric Roles of Combat Vehicles, Anvils are generally identified via **Combat Task [CT]**, which provides an at-a-glance understanding of what an Anvil is likely to do when in combat.

There are six Anvil CTs: **Vanguard, Sniper, Recon, Defender, Artillerist, and Commander.**

Anvil CTs are not hard requirements and have no direct mechanical purpose. Tasks are meant to clue players and Coordinators into what an Anvil is capable of without getting into the nuts and bolts of the design. CTs are not exclusive either. An Anvil may be a Vanguard/Recon, or a Commander/Sniper, or any combination of two CTs. Generally, it is best practise to put the main CT (or the preferred CT) ahead of the two. Anvils which do not fall into any single CT and are capable of handling any kind of situation are referred to simply as **Generalists**.

VANGUARD

First in, last out.

Acting as both mobile fighter and spearhead, Vanguard units specialise in front-line combat. Vanguards favour Melee weapons, Shields, and close-quarters weapons like Machine Guns and Shotguns that allow them to take shots on the move. Assault Rifles and lightweight Missiles 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

One shot is all it takes.

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-accuracy Missiles. Radars and Radar Jammers help the Sniper spot distant targets and remain protected when in position, and allow them to strike before the enemy is aware of their presence. Snipers rarely have the raw 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 reposition with ease.

RECON

You can run, but you can't hide.

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 Machine Guns, Rockets, sabotage weapons such as Minelayers and Bomb Dispensers, and support weapons such as Mortars. A decent portion of a Recon's Load will go towards Radars, Vision Modules, Radar Jammers, and other sensors. Recons are, by their very nature, light and fast, and so use their incredible mobility to avoid direct confrontation. Hover Mobility Bases allow Recons to move swiftly and ignore troublesome terrain like Ice, Sand, and Water.

DEFENDER

None shall pass.

Hulking fortresses of heavy armour and powerful direct fire weaponry, Defender units specialise in protecting more fragile allies and denying enemy approaches. Defenders carry hard-hitting weapons like Cannons, Shotguns, Heavy Missiles, and occasionally artillery weapons like Howitzers. Shields and Close-In Weapon Systems are also required reading for any serious Defender. 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

Putting warheads on foreheads.

Loaded with batteries of heavy, indirect fire weapons, Artillerists specialise in 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

The truth is in the noise.

Compared to all other CTs, 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 (if they're still up there). Commanders gain these capabilities through the use of special Gear called the Local Control Array, which provides an Anvil with unparalleled tactical control, including a powerful radar system. Weaponry is a secondary concern for Commanders, who focus their efforts on supporting the team and disrupting enemy coordination. Wheeled Mobility Bases make good choices for Commanders due to their excellent blend of ground speed and Load Tolerance.



Regardless of which CT you identify with, or how you construct your Anvil, it is important to recognise that you will only ever have about 60% of what you need to tackle an entire Sortie. You may have the armour and firepower to crush entire Platoons without breaking a sweat, but will you have the speed to depart the field before a Scud missile hits? Will you have the electronic warfare equipment necessary to protect yourself from hostile Jammers? Will you be able to cross the river between you and the objective without flooding your engine? So on, and so forth.

Teamwork is key to victory. Even the Free Agents who strike out on their own understand the value of allies, and an Anvil out all by its lonesome is a choice target to be torn to shreds. Rely on your teammates, your Chain, and you will all perform greater than the sum of your parts.

Remember, the Anvil is as tough as a tank and as dangerous as a gunship, but it's not invincible. Understand the weaknesses inherent to your Anvil's design and work with your Chain to overcome those weaknesses, and victory is all but assured.

CONSTRUCTION AND ASSEMBLAGE

The Anvil, inherently, is a modular system. Each of its six **Components** and its singular **Subcomponent** can be swapped out for a different one, provided they are of the same Component category. This flexibility gives Anvils an unparalleled tactical and strategic edge, which more than makes up for their somewhat tricky maintenance and logistics trails. The ability to transform an artillery platform into a close-combat spearhead, all in the span of a single afternoon, is a power that is rarely overstated.

Anvils must be constructed out of their six main Components and one Subcomponent. This means Anvils are ineligible for combat if they do not have one of each of the following: **Core, Mobility Base, Left Arm, Right Arm, Generator, Electronics, and Fire Control System.**

An exception to this rule is if an Anvil has lost a Component it previously had, such as an Arm. In these situations, the Anvil may deploy, but its combat effectiveness is certain to suffer. Naturally, Anvils may not deploy if their Core is Disabled or missing, and depending on the scenario, they may be unable to deploy without their Mobility Base.

All Components have a **Load** and, with the exception of the Generator, a **Drain**. A Component's Load measures how heavy it is, in **Standard Tons [ST]**, while its Drain measures how much EN Output it consumes to operate. The Fire Control System's Load is negligible, and so is considered 0, but its Drain can be considerable, depending on the model.

In addition to Components, Anvils also carry **Gear**. Gear constitutes weaponry and equipment, and makes up the loadout of any given Anvil. The CT the Anvil undertakes on the battlefield usually defines both its Component choices and its Gear choices. An Anvil focused on area denial and defence will look drastically different from an Anvil designed to gather intel and relay coordinates to allies.

JETTISON

A unique function of AMES Gear (any Anvil weapon or equipment) is its ability to be **jettisoned** during a Sortie. **Jettison** allows an Anvil to drop a currently-mounted Gear to save weight, which can improve Speed and Initiative, depending on the Anvil and Gear in question.

To jettison Gear, the Anvil's controller first declares this intent, then chooses any number of Gear to remove from their Hardpoints. The Gear is immediately removed, ceases to affect the Sortie, and lands on the hex the Anvil currently occupies, where it may be recovered if that Anvil's team controls the battlefield at the end of the Sortie. Jettisoned Gear which occupies Lava or Burning Terrain is Destroyed and may not be recovered. Jettisoned Gear otherwise does not interact with the Sortie and cannot be Destroyed.

All Anvils can jettison Gear from their Arms, but a special Skill is required to jettison Gear from the Core. Combat Vehicles that carry AMES Gear cannot jettison that Gear. Anvils may jettison Gear at urgent speed. Shields which are reduced to 0 AP are not jettisoned until the Activation or action which reduced them to 0 AP has been resolved.

COMPONENTS

CORE

The most important and central Component of the Anvil is the **Core [CR]**.

Within this armoured shell resides the pilot, control surfaces, and the Anvil Diagnostic Display, each a critical element to the function of the machine as a whole. The Core's frame also supports the Generator, which plugs into the rear, the Arms, which plug into the sides, the Mobility Base, which plugs into the bottom, and the Electronics which most commonly plugs into the top. Major electrical and computational processes are handled by the Core, and almost every model on the market provides easy access to breaker bays from the cockpit seat.

The Core also alters the overall silhouette of the Anvil. Smaller Cores make the Anvil naturally more difficult to strike, while larger Cores tend to be easier targets. As a result, many larger Cores tend to have better AP, higher Resistances, or better Block efficiency.

All Cores have **AP, KE Resistance, CE Resistance, and TE Resistance**, as well as **Load** and **Drain**.

The **Block** BID action is controlled by the Core. The Core's **Block Bonus** allows the Anvil to assign that many Hits to any Component during an Activation, while the **Block Cost** is how much EN the Anvil must spend to take the Block action.

Cores also provide the Anvil with its basic **DV**, which must be met or exceeded by an Activation's cast dice pool to score a Hit.

One particular Core element is the **Critical Output**. Anvils receive EN equal to their Critical Output during Emergency Upkeep and after suffering a Damage Step. Anvils receive this EN even if they do not qualify for it during Emergency Upkeep or if they are otherwise unable to generate EN.

Cores have up to 6 AMES-compatible **Hardpoints**, allowing them to mount and use Gear. All Gear has a Size, and if the Gear's Size exceeds the number of Hardpoints currently available on the Core, it may not be mounted. Compared to the Arms, Cores tend to have more space and more weight to play with, and the only weight limit they need to worry about is that of the Mobility Base. Gear mounted to the Core may only be activated in the Nose Arc, unless that Gear specifies otherwise.

MOBILITY BASE

The other most important Component of the Anvil is the **Mobility Base [MB]**. The Mobility Base determines how the Anvil moves and acts, as well as how much Load the Anvil can carry. Each Mobility Base is tuned to provide the Anvil with heightened agility compared to their conventional counterparts; drivetrains and gearboxes are designed with rapid shifting in mind, allowing Anvils to quickly correct course, halt, or jink past incoming fire.

All Mobility Bases have **AP, KE Resistance, CE Resistance, and TE Resistance**, as well as **Load** and **Drain**.

The **Dodge** BID action is controlled by the Mobility Base. The Mobility Base's **Dodge Bonus** allows the Anvil to increase its DV by that amount during an Activation, while the **Dodge Cost** is how much EN the Anvil must spend to take the Dodge action.

Mobility Bases control the Anvil's **Load Tolerance**. Load Tolerance is a sliding scale which Anvils adhere to when determining their net **Cruising Speed**, **Flanking Speed**, and **Initiative**. Generally-speaking, the more Load placed onto a Mobility Base, the slower and less responsive it becomes. The Load Tolerance scale is unique to each Mobility Base, and is broken up into five **Breakpoints**. Anvils with a **Mounted Load** equal to or less than a Breakpoint's value receive the bonuses and maluses associated with that Breakpoint. Mounted Load does not include the weight of the Mobility Base.

For instance, if an Anvil carried 35 ST as Mounted Load, it would determine where 35 puts it on its Load Tolerance scale. If it had a Breakpoint at 33 and a Breakpoint at 36, it would gain the benefits of the Breakpoint at 36 because it has exceeded the Breakpoint at 33.

Load Tolerance Breakpoints are affected by an Anvil's current Mounted Load, which means Gear that is jettisoned or Destroyed no longer counts towards Mounted Load. Certain designs take advantage of this by mounting equipment like Shields to put them just over a Breakpoint; when the Shield is Destroyed, they descend to the next Breakpoint automatically. Anvils which have their Arms Destroyed reduce their Mounted Load by the Arm's Load, but Arms which are merely Disabled do not provide this benefit.

Uniquely, Mobility Bases also control the Anvil's **Manoeuvre Cost**. To perform a Manoeuvre, an Anvil must first spend its Manoeuvre Cost in **Charge**, where the amount of Charge available to that Anvil is based on its Generator.

Mobility Bases also provide the Anvil with its basic **Speed**, and its **Chassis** Type, which determines which of the six locomotion types the Mobility Base uses.

CHASSIS

Each Mobility Base has a **Chassis** type which defines which kind of Mobility Base it is and confers special **Traits**. Traits are permanent benefits the Mobility Base enjoys, though certain Traits can have their effects nullified by Damage Steps. Note that Combat Vehicles operate differently, or feature unique combinations of Traits.

Anvils may choose from six major Chassis types:

BIPED

Bipedal MBs have two legs set in a humanoid configuration. They are terrifically agile in close combat and allow the Anvil to clamber up vertical surfaces, a sight to behold on the battlefield. Bipedal MBs are common choices for Vanguard and Recon and, at the heavier end of the scale, Defenders. It's hard to go wrong with a Bipedal MB and of the three Striding types available, they are the most plentiful.

REVERSE-JOINT

Reverse-Joint, or RJ MBs have two legs set in an inverse (or "chicken-walker") configuration. They are mainly suitable for firing long-range weapons. Due to their unique construction, RJ MBs are also able to leap long distances, even able to hop over entire buildings in a single bound. RJ MBs are natural picks for Snipers, though Recon and Artillerists make good use of them too.

QUADRUPED

Quadrupedal MBs have four legs set in a tetrapod configuration. They are designed for heavy weapons and artillery work and can soak up the intense recoil generated by such heavy weaponry. Their wide stance also allows them to easily clamber over difficult terrain, and mule-kick from a Quad is enough to put even the mightiest of mechs in the dirt. Quadrupedal MBs are almost exclusively used by Artillerists, but their immense load capacity makes them attractive choices for most other CTs as well.

WHEELED

Wheeled MBs have four, six, or eight wheels arranged on either side of an armoured chassis. They are fast on open ground and easy to use. Their large secondary engines provide plenty of horsepower and can even handle Lorentz disc-based manoeuvring in a pinch. Wheeled MBs are commonly used by Commanders, and are a popular pick for Vanguarders seeking an alternative to Bipedal chassis.

TRACKED

Tracked MBs have two or four caterpillar treads arranged on either side of an armoured chassis. They are designed to be heavy and cumbersome, but very highly armoured. High natural stability allows whatever's mounted on top of the MB to traverse at high speeds, granting additional offensive and defensive solutions in combat. Defenders naturally make heavy use of Tracked MBs, though heavy Vanguarders and Commanders often consider them too.

HOVER

Hover MBs have a set of fans and a skirt which creates an air cushion effect. They are extremely fast and agile, but more fragile as a result. The raw mobility offered by Hover MBs cannot be overstated. They can slide in and out of combat as quickly as a knife in the ribs, and their ability to ignore most types of difficult terrain is invaluable. Hover MBs are naturally suited for Recon work. Their lower load capacity makes it difficult for other CTs to fully embrace the strength of the Hover chassis, but discerning pilots can overcome this inhibition.

ARMS

The **Arms** separate the Anvil from other, more conventional combat vehicles. Anvils have two Arms – a **Left Arm [LR]** and a **Right Arm [RA]** – affixed to the Core which provide additional range of motion for mounted weaponry and allow the Anvil to wield Melee weapons. Arms tend to be more frail than Core and Mobility Base Components, but their flexibility should not be underestimated.

All Arms have **AP**, **KE Resistance**, **CE Resistance**, and **TE Resistance**, as well as **Load** and **Drain**. The Arm's **Agility** determines how many extra dice are cast when Activating Gear against targets within 3 hexes.

There are two types of Arms: **Standard Arms** and **Weapon Arms**.

STANDARD ARMS

Standard Arms are constructed similarly to a human's arm, with a shoulder, elbow, and manipulator. They are typically designed to mimic the range of motion a human arm has. Their manipulators are rarely as delicate, however – heavy claws and ruggedised clamps make up the bulk of Anvil manipulators, good for clutching and clearing debris or knocking down walls, and not well-suited for dexterous tasks. As a result, Anvil manipulators cannot wield handheld weaponry. Weapons are instead mounted to the forearm.

Standard Arms have **Strength**, which determines a number of critical functions. An Arm's Strength is a limit (in ST) of how much Load can be mounted to that Arm. Punches and KE Melee attacks add ½ of that Arm's Strength value to the inflicted damage. CE and TE Melee attacks do not receive this benefit.

Standard Arms also have Hardpoints, much like the Core. They have 1 to 3 AMES-compatible Hardpoints which can carry a number of different types of Gear. If the Gear's Size exceeds the number of Hardpoints currently available on the Arm, it may not be mounted. Gear mounted to the Arm may be activated in the Nose Arc, plus the conjoined Forward and Rear Arcs.

WEAPON ARMS

Weapon Arms eschew the versatility of a Standard Arm in favour of mounting an **Integrated Weapon**. They possess similar ranges of motion, but lack modularity and have no manipulator. The Integrated Weapon tends to be about as strong as Secondary weapons, yet occupies the Primary weapon slot. The tradeoff is simple: greater power for lesser flexibility.

Weapon Arms, with their Integrated Weapons, do not have Strength or Hardpoints, and instead have their weapon's stats listed alongside their normal Arm stats. They follow the same rules as Arms otherwise.

GENERATOR

The **Generator [GN]** is the powerplant of the Anvil, circulating coolant throughout the machine and providing EN to all Components and Gear. Without it, the Anvil is a handsome statue – nice to look at but hardly a threat.

All Generators have **AP**, **KE Resistance**, **CE Resistance**, and **TE Resistance**, as well as **Load**.

The **EN Output** of a Generator defines how much EN the Anvil gets back during its Upkeep. This amount is added to the Anvil's current EN. An Anvil can store up to its **EN Capacity** in EN – any extra EN gained beyond its EN Capacity is lost.

Charge is an exclusive resource to Anvils which allows them to conduct Manoeuvres without tapping into their EN reserves. The amount of Charge required to conduct such Manoeuvres is determined by the Mobility Base, but the total amount of Charge held at any one time is determined by the Generator.

Fuel is a resource which powers the Generator's ability to create EN and Charge. Between Sorties, a point of Fuel may be spent to replenish all Charge, or a point of Fuel may be spent during a Sortie to pay for any Manoeuvre Cost. This is known as burning Fuel, and may only be done once per Round. If a Generator has 0 Fuel, that Unit gains the Running on Fumes Condition and is soon going to be in dire straits.

A Generator's **Heat Tolerance** is the amount of Heat a Generator can absorb before Overheating. A Generator will not Overheat until its Heat is greater than its Heat Tolerance. Riding the line can be a valuable strategy depending on the situation.

COOLING

Generators are separated into three main types: **Gas-Cooled**, **Liquid-Cooled**, and **Plasma-Cooled**. The differences mainly lie in how the Anvil dissipates Heat and how it handles Overheating.

GAS COOLING

"Nothing beats old-fashioned 240 air cooling. Two vents open, forty miles an hour."

This Unit dissipates 12 Heat during Upkeep in Temperate temperatures. Cooling is increased to 14 in Cold temperatures, decreased to 10 in Hot temperatures, and decreased to 8 in Polar and Equatorial temperatures. Snow improves Cooling by 2, and Water (still, Flowing, or Rapid) improves Cooling by 5.

LIQUID COOLING

"Just don't get any on you."

This Unit dissipates half of its current Heat during Upkeep in Temperate temperatures. Heat dissipation is increased by 2 in Cold temperatures and reduced by 2 in Hot temperatures. Cooling is set to 8 in Polar and Equatorial temperatures. Snow improves Cooling by 2, and Water (still, Flowing, or Rapid) improves Cooling by 5.

PLASMA COOLING

"Do I look like a physics professor? It just works, alright?"

This Unit dissipates its current amount of Heat during Upkeep in Temperate, Cold, and Hot temperatures. Cooling is set to ½ Heat Tolerance in Polar and Equatorial temperatures. Snow improves Cooling by 2, and Water (still, Flowing, or Rapid) improves Cooling by 5.



When factoring flat additions or reductions to Cooling types which have variable dissipation rates (Liquid and Plasma), the flat addition or reduction happens after the base Cooling has been resolved.

For instance, a Liquid-Cooled Anvil occupying a Snow hex in Cold temperatures goes through Upkeep and dissipates Heat. It currently has 27 Heat. It first dissipates 13.5 Heat, then rounds up to 14. It then reduces its Heat by 2 for being in a Cold environment, then by 2 again for occupying Snow. The final result is 10 Heat.

Regardless of Cooling Type, Units such as Anvils and SPs have internal liquid coolant systems which wick heat away from weapons and equipment and cycle hot coolant to radiators and thermal exchangers. Units which overburden their cooling systems run the risk of Overheating. In some circumstances, turning your Generator to slag is a preferable alternative to almost certain death.

OVERHEATING

Some Units will **Overheat** if they obtain more Heat than their Heat Tolerance allows. An Overheated Unit suffers different negative effects depending on their Cooling Type. These effects take place immediately, may have effects which linger as long as the Unit remains Overheated, and cease as soon as the Unit stops Overheating.

GAS COOLING

All sustained Gear becomes unsustained (it may be sustained again during Upkeep). EN Capacity is reduced by 8. Surplus EN is lost. Cooling is increased by 3. All Components take 2 Special damage. When this Unit generates Heat, receives Heat from an external source, or cools Heat, all Components take 2 Special damage. This may only happen once per Turn.

LIQUID COOLING

All sustained Gear becomes unsustained (it may be sustained again during Upkeep). The Generator takes 5 Special damage. When this Unit generates Heat or receives Heat from an external source, the Generator Component takes 2 Special damage. This may only happen once per Turn. When this Unit exits Overheating, its base Heat Tolerance is reduced by 5.

PLASMA COOLING

All sustained Gear becomes unsustained (it may be sustained again during Upkeep). Gain EN equal to your Critical Output. Whenever this Unit spends EN, the associated Component takes that much Special damage (Dodging deals damage to the Mobility Base, Activating a weapon deals damage to the mounting location, and so on). Cooling is set to 0 until the end of the Unit's next Turn (including Cooling from Gear and environmental effects).

ELECTRONICS

The **Electronics [EL]** are the Anvil's eyes and ears, interfacing with cameras and sensors strewn across the Anvil's frame to provide the pilot with real-time environmental information. If the Electronics are knocked out,

the Anvil is effectively blind. The pilot may be able to use physical viewports to pilot and possibly direct weapons fire, but doing so with any degree of accuracy is a tall order.

All Electronics have **AP**, **KE Resistance**, **CE Resistance**, and **TE Resistance**, as well as **Load** and **Drain**.

The **Intercept** BID action is controlled by the Electronics. The Electronics' **Intercept Bonus** allows the Anvil to reduce a Hit's damage by that amount during an Activation, while the **Intercept Cost** is how much EN the Anvil must spend to take the Intercept action. Note that Melee attacks cannot be Intercepted, and that Intercept only applies to a single Hit, not multiple.

The Electronics assist the Anvil in clearing electromechanical problems known as Errors. Clearing Errors only happens during Emergency Upkeep and requires the Unit to spend its **Refresh Cost** in EN. Once spent, the Unit clears up to 1 Error.

HARDWARE

Each Electronics Component has a **Hardware** Type. These work similarly to Chassis Types for the Mobility Base and can help nudge your Anvil's desired Combat Task in one direction or another.

There are eight Hardware Types available:

EFFICIENT

"It ain't flashy, but it doesn't need to be."

Electronics with an extra condenser built in, providing additional EN Capacity to the Anvil.

GUNHEAD

"Gives 'staring a hole into someone' a whole new meaning."

Electronics with an onboard weapon, designed to engage both projectiles and hostile units.

HARDENED

"Ignorance is bliss."

Electronics with analogue redundancies, designed to overcome any amount of electronic interference.

LOW PROFILE

"And then about thirty megajoules of railgun slug flew right over my head!"

Electronics designed to be highly compact, turning crippling blows into harmless grazes.

MULTI-EYE

"One eye, two eye, red eye, blue eye."

Electronics with multiple linked cameras, designed to multiply FCS effectiveness.

NETWORK SYPHON

"Task saturation is a myth made up by people not cool enough to drive an Anvil."

Electronics designed with enhanced processing speed, giving pilots the ability to change their Initiative.

QUICKLOCK

"When every shot costs forty thousand Mona, you gotta make 'em count."

Electronics designed to be linked directly to Core-mounted weapons, boosting their accuracy.

RANGEFINDER

"Now watch this drive."

Electronics with a powerful ballistic computer, able to zero in on targets with unparalleled accuracy.

FIRE CONTROL SYSTEM

The Electronics are unique in that they also carry the sole Subcomponent of the Anvil: the **Fire Control System [FCS]**.

The FCS is the Anvil's weapon handling system, a combination of hardware and software which processes fire commands and assists STENO with identifying targets. It is a small but vital part in the construction of the Anvil.

The FCS is not a true Component and so does not have AP, KE Resistance, CE Resistance, and TE Resistance, or Load. It does however have a **Drain**.

The FCS has two range bands: the longer **Outer Range** and the shorter **Inner Range**. The Outer Range is inclusive of the Inner Range. Activating weapons against targets which are beyond Outer Range increases Par by 1. If your FCS becomes JAMMED, its Outer Range is reduced to its Inner Range value.

The Fire Control System's Outer Range is modified by the Electronics' **Camera Modifier**. The Camera Modifier's value is added to the FCS' Outer Range value. In some cases, this may be a subtraction. Occasionally, a Camera Modifier will be sufficiently negative that the Outer Range becomes less than the Inner Range. In these cases, the Outer Range is made equal to the Inner Range.

Each FCS has a **Targeting Type**. The Targeting Type influences what your Anvil is designed to do on the battlefield. Each Targeting Type provides a bonus to Activations against targets in the FCS' Outer Range, Inner Range, or both. Outer Range Targeting Type bonuses apply to the Inner Range as well. Your FCS provides Targeting Type bonuses as long as it is not Disabled.

There are six Targeting Types available to Anvils:

OPTICAL

"High-definition at a klick and a half, with a zoom good enough to see Ivan picking his nose."

Optical FCSes provide additional accuracy during calm weather and clear lighting conditions.

INFRARED

"The more you try to hide, the easier you are to find."

Infrared FCSes provide additional accuracy versus targets hiding in smoke or under the cover of night.

LASER

"Your diminished eyesight has been determined to not be service-related."

Laser FCSes provide additional accuracy to ranged attacks and assist laser-guided weapons.

TRACKING

"Keep running, you'll just die tired."

Tracking FCSes provide additional accuracy versus evasive targets and assist semi-guided weapons.

SPOTTING

"When there's trouble afoot, make sure you don't step on it."

Spotting FCSes help attacks pierce cover and can reveal hidden things, like mines and ambushes.

EWACS

"If it flies, it dies."

EWACS FCSes provide additional accuracy versus airborne targets and defence against artillery.



Certain low-cost or outdated Combat Vehicles use the “Eyeballs” Targeting Type. This Targeting Type is not normally available to Anvils and provides no benefits, though Anvils which lose their FCS as a result of damage or other special effects may obtain the Eyeballs Targeting Type. The Eyeballs Targeting Type cannot be JAMMED.

STENO

Everyone needs a friend on the battlefield, and Anvil pilots are no exception. For many of them, the most reliable ally they have in the cockpit is a bit of expertly-made Canadian software, known as **STENO**. Standing for “Syntactic Target Entity Nomenclature Omnibus,” STENO is an ever-present and ever-important element to the functionality of every Anvil. As Anvils are commonly deployed to various theatres under various circumstances, facing various threats which sport various design differences, STENO is right there alongside the pilot to figure out just what they’re looking at. Without her, most pilots would be at a loss on the constantly evolving battlefield.

During a Sortie, any player who controls an Anvil may query STENO for information on any target to which that Anvil can draw LOS. STENO then provides the requesting player with the following information about that target:

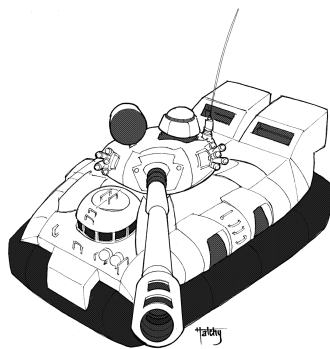
- The target’s name, reporting name(s), and Type.
- The target’s Component names.
- Each Component’s maximum AP and highest Resistance(s), per Component.
- The Type of each piece of Gear mounted to each Component.

For instance, an EU Anvil spots a new model of Soviet tank creeping along a road in the distance. The Anvil’s pilot queries STENO as to what they’re looking at, and STENO dutifully responds with the following:

- T-80U, “Torsion,” Tank.
- Hull, 13 AP, 7 CE, Cannon, Laser Designator.
- Turret, 13 AP, 7 CE, Machine Gun, Chaff Launcher.

STENO is capable of retrieving Anvil names and the callsign of their pilots, provided those Anvils and pilots are registered in STENO’s database.

Darkness and Pitch Black light levels, and Heavy Precipitation, Airborne Particulate, Glare, Shimmer, Fog, and Insect Swarm weather types impair STENO’s ability to provide a readout. For more information about STENO’s behaviour under these conditions, see *THE BATTLEFIELD – THE FORECAST*.



MX-93 Charybdis, Tank; Hull, 14 AP, 3 TE, Cannon; Turret, 14 AP, 3 TE, Smoke Launcher

GEAR

While no Anvil is merely the sum of its parts, the sum of those parts plays a vital role in the Anvil's ability to successfully wage heavy metal war. Without **Gear**, the Anvil is a glorified hydraulic press, capable of crushing cars underfoot but not much else. Gear constitutes the Anvil's **weapons** and **equipment** – Assault Rifles, Cannons, Shields, Radars, and Spare Fuel Tanks all fall under the Gear category.

All Gear must be mounted onto a **Hardpoint**, which only Cores and Standard Arms have. Anvils may not mount Gear to their Mobility Base, Generator, Electronics, or Fire Control System. Gear which is mounted on an Anvil occupies a number of Hardpoints equal to its **Size**.

For instance, a Size 3 Railgun takes up 3 Hardpoints, which means Components that do not have 3 or more Hardpoints to spare cannot carry it (if they can even support the enormous weight of the Railgun in the first place).

In addition to Size, Gear also has **Load**. Certain types of Gear, called **Sustained Gear** have other costs too, such as **EN Drain**, **EN Offset**, or a **Heat** cost. These types of Gear only inflict their costs when they are active (such as a Radar), and may be activated or deactivated during Upkeep. Gear which is not Sustained is either Active, in which a cost is paid once per Activation (such as a Laser Designator) or Passive, in which the Gear is always active and providing its benefits (such as a Shield).

Lastly, Gear is divided into multiple **Classes**. This primarily affects weapons, but is important for equipment as well. Anvils may not carry more than two examples from the same Class. Weapons are broken down into **Primary**, **Secondary**, and **Tertiary** Classes, while equipment is broken down by its **Type**, such as Radar, APU, or Shield.

Anvils must have all Gear mounted to Hardpoints and, in all cases, the following stipulations apply:

- Anvils cannot carry more than two Primary Weapons, more than two Secondary Weapons, or more than two Tertiary Weapons.
- Anvils cannot carry more than two pieces of equipment that share a Type, such as Radar.
- Anvils cannot carry more than 12 individual pieces of Gear.

An exception to the above rules is the Local Control Array [LCA]. Only one LCA may be mounted to a Unit, and only one LCA may be active per each team participating in a Sortie.

WEAPON TYPES

Like the vehicles which carry them into combat, **weapons** come in numerous forms and sizes. Some weapons are obsolete vestiges of a bygone era, others are cutting-edge examples of exotic engineering, and a few are just plain good guns. Whatever the case, there are a number of regularly-seen weapon types.

Anvils have access to many weapon types, including:

BLADES, LASER

Narrow-aperture weapons designed to produce a very intense but short burst of thermal energy. Like Physical Blades, Laser Blades are explicitly designed for mech units.

BLADES, PHYSICAL

Simple metal blades and hammers designed to carve and smash armour. The advent of the Anvil caused a resurgence in melee combat technologies, including the humble blade.

BOMB DISPENSERS

Unorthodox weapons for ground-based vehicles, yet devastating when used properly. Bomb Dispensers are chiefly used for clandestine sabotage of hardened structures.

CANNONS

Large calibre weapons with powerful ammunition found on Anvils, tanks, AFVs, and more. Cannons provide versatility with their ability to select ammunition on the fly.

CANNONS, ARTILLERY

Massive, cumbersome artillery weapons designed to level infrastructure with raw firepower. Uncommon to see on Anvils, but decidedly dangerous to any opposition.

CANNONS, LASER

High-wattage weapons with extreme power demands but extreme damage output as a result. Few units in modern armies can withstand the power of a Laser Cannon.

CANNONS, PULSE

Large laser weapons with high rates of fire, designed to shred targets with repeated hits. Pulse Cannons, like other cannon weapons, are seen both on Anvils and modern conventional vehicles.

CANNONS, ROTARY

Multi-barrelled weapons designed to overwhelm targets with sheer volume of fire. As a result of such a high fire rate, cooling tends to be an issue with these weapons.

CANNONS, SNIPER

Heavy cannons tuned for extreme range, accuracy, and power. While resource-intensive, Sniper Cannons can obliterate even heavily-armoured targets with just a couple of hits.

CHAINGUNS

Medium-calibre, lightweight ballistic weapons designed for lightweight units. Chainguns make up for their lacklustre damage with intense rate of fire and reliability.

EM LANCES

Heavyweight, close-range thermal weapons that produce a massive spear of energy to pierce armour. Like other melee weapons, EM Lances are usually only seen on Anvils.

FLAMETHROWERS

Thermal weapons which spray burning liquid onto targets, incinerating them and their cover in short order. Flamethrowers tend to lack raw damage but make up for it in heat output.

GRENADE LAUNCHERS

Lightweight support weapons built for deploying special munitions, such as smoke, coolant, or even mines. Various munition options help overcome otherwise modest damage and range.

HOWITZERS

Large-bore, powerful weapons that fire explosive shells in a distinct parabolic arc. Howitzers are primarily used for artillery work and mass area denial at all ranges.

MACHINE GUNS

Machine Guns are purpose-built for Anvil combat, making use of smaller rounds and higher fire rates. Machine Guns make excellent backup weapons for any CT.

MINELAYERS

Simple, relatively lightweight weapons which scatter mines across a small area. Given time, most Minelayers can lock off entire grids with hidden ordnance.

MINESWEEPERS

Support-focused weapons designed to clear out obstructions, engineered obstacles, and hidden explosives. Rare to see on Anvils but common on engineering vehicles.

MISSILE LAUNCHERS

Medium-weight weapons designed to pack as much power into a small package as possible. Missile launchers are found on countless units, from humvees to Anvils.

MISSILE LAUNCHERS, ANTI-AIR

Lightweight Missile Launchers designed explicitly to counter aircraft of all types. Due to their small size, they are easy to fit onto any kind of combat vehicle, though they tend to have limited ammunition..

MISSILE LAUNCHERS, ANTI-TANK

Lightweight Missile Launchers designed explicitly to counter heavily-armoured targets. Due to their small size, they are easy to fit onto any kind of combat vehicle, though they tend to have limited ammunition.

MISSILE LAUNCHERS, ARTILLERY

Massive Missile Launchers designed for siege work at extreme ranges. Compared to other artillery weapons, Artillery Missile Launchers tend to exhibit very high accuracy without sacrificing damage.

MISSILE LAUNCHERS, CLUSTER

Missile Launchers which support very few heavyweight missiles. What they lack in endurance, Cluster Missile Launchers abound with devastating, immediate firepower.

MISSILE LAUNCHERS, MICRO

Missile Launchers with multiple cells packed with small-diameter partially-guided munitions. Sheer volume of fire guarantees successful hits against even evasive targets.

MISSILE LAUNCHERS, MULTI

Missile Launchers designed to fire multiple individual missiles in rapid succession. Defending against a Multi-Missile Launcher is quite difficult, though such weapons tend to burn through ammunition quickly.

MISSILE LAUNCHERS, HEAVY

Heavyweight launch systems designed to fire powerful, extreme-range munitions. Heavy Missile Launchers tend to have multiple unique Payload options available.

MORTARS

Large-bore, lighter-weight artillery weapons designed to support allies rather than deliver heavy damage. Among all weapons, Mortars have some of the highest firing angles and can easily defeat cover.

PILEDRIVERS

Ammunition-fed melee weapons which drive powerful spikes or explosives into a target. Something of an odd new addition to the tools of the modern battlefield, but undeniably powerful.

PULSE GUNS

Lightweight thermal weapons with low range and an emphasis on volume of fire. Low shot damage is offset by many vehicles lacking sufficient thermal resistances.

RAILGUNS

Huge, power-hungry, superheavy weapons designed to split armoured targets in half from dozens of miles away. Anvils carrying such weapons are feared by friend and foe alike.

RIFLES, ASSAULT

Generalist medium-calibre weapons which can handle a variety of common threats. Assault Rifles tend to have middling damage but make up for it with good rates of fire and flexible ammunition pools.

RIFLES, LASER

Generalist medium-wattage weapons which, like their ballistic brethren, handle various threats. Modestly higher damage is offset by slower fire rates.

RIFLES, SNIPER

High-powered large-calibre weapons built for striking targets at long range. Many Sniper Rifles are tuned for taking out high value targets with high-speed munitions.

RIFLES, RECOILLESS

Simple, single-action Rifles that trade rapid fire for high accuracy, without the weight or power burdens of a Sniper Rifle. Common to see on light vehicles.

ROCKET RACKS

Lightweight weapons designed to discharge multiple medium-diameter rockets in rapid succession. Ubiquitous on the modern battlefield, being both cheap and reliable.

ROCKET RACKS, HEAVY

Heavyweight weapons designed to launch singular, large-diameter rockets at slow-moving or stationary targets. Unwieldy and inaccurate, but hugely powerful and cheap to boot.

SCATTERLASERS

Powerful medium-wattage weapons that tend to have very short range and poor battlefield endurance. Scatterlasers nevertheless have very high raw damage output.

SHOTGUNS

Close-range ballistic weapons designed explicitly for Anvils and mobile mech units. In the right hands, Shotguns can inflict devastating damage in short order.

FUNCTIONS AND PAYLOADS

METALLURGENT makes use of many different **Keywords**, which are evergreen terms that are designed to condense lengthy rules into identifiable nomenclature. For Anvils, Keywords are split into **Functions** and **Payloads**. Functions are the intrinsic mechanical qualities exhibited by a weapon, while Payloads are loaded munitions used by that weapon. These Keywords are not usually applied to equipment, though certain equipment (such as Target Designators) may behave similar to a weapon.

Weapons may have any number of Functions but they may not obtain or otherwise possess duplicate Functions.

Ammunition may have any number of Payloads but may not obtain or otherwise possess duplicate Payloads.

Blast, Cluster, and Shockwave Payloads are known as **Area Effect** Payloads. These Payloads interact with specific rules in certain ways and therefore have their own group designation. Linear and Projector Functions, while area-based, are not Area Effects.

EQUIPMENT TYPES

The ability to shoot an enemy is fine and dandy, but without the ability to see your enemy, acquire him, and accurately guide that fire to him, you may find your weaponry lacking. Vehicles on the modern battlefield therefore commonly carry **equipment** which improves their offensive and defensive capabilities.

Anvils have access to many equipment types, including:

RADARS, EARLY WARNING

Sensory equipment designed to acquire, categorise, and track aircraft operating in the local theatre. Early Warning Radars can also provide time-space-position information (known as TSPI) of airborne ordnance and artillery shells in their ballistic or terminal stages.

RADARS, TRACKING

K-, Ka-, or Ku-band sensors designed to acquire and lock onto fast-moving targets of sufficient velocity and size. While much shorter range than their EWACS brethren, Tracking Radars can easily keep up with singular high-speed targets and accurately guide fire towards them, even including ballistic lead indicators.

RADARS, SPOTTING

Powerful, short-range phased-array radar systems designed to steer sweeping beams of microwaves across nearby areas to detect and image solid objects. Unlike other radars which attempt to acquire and track targets, Spotting Radars mark ground clutter and obstacles between attacker and defender, allowing for more accurate attacks against targets hiding among buildings and trees.

RADIOS

Relatively simple yet robust communications equipment that can usually punch through local electromagnetic interference. The Multiplex Armoured Radio System (MARS) became the silver standard for simple and straightforward communications in an increasingly complex electronic environment.

LOCAL CONTROL ARRAYS [LCA]

Large, complex command and control (C2) structures, LCAs were originally designed for clandestine operations that could not risk satellite communications. Even before the Y2K disaster, LCAs saw more open field use as a result of low Earth orbit congestion. LCAs use special devices called Chipsets to influence the battle, and are required for Anvils to participate in the Commander CT.

JAMMERS

Electronic countermeasure (ECM) suites capable of disrupting hostile electronics and sensors as well as providing electronic counter-countermeasures (ECCM) to block out hostile interference. Anvil Jammers tend to be more versatile than those found on Combat Vehicles, but all types are very useful for contesting the electronic battlefield environment.

DAZZLERS

Optical countermeasure suites which disrupt the sensitive cameras of hostile vehicles or strobe visible light to disorient their crewmembers. Dazzlers are light and easy to load, and see plenty of use in Defender and Recon CTs.

VISION MODULES

Lightweight subcamera assemblies which are mounted to the exterior of the Anvil to provide vision in adverse conditions. Thermal imagers are by far the most popular examples of Vision Modules, and their size and mass allow them to be easily added to any loadout.

TARGET DESIGNATORS

Lightweight equipment which commonly use nonlethal lasers to mark targets for fire missions or to more accurately walk in artillery attacks. There is little difference between the Target Designators used by Anvils and those used by conventional vehicles, beyond the mounting method.

SHIELDS

Typically broad, thick, overarm plates coated in armour material to provide an ablative surface for countering hostile fire. Anvils are particularly adept at using Shields, with their ability to traverse both Core and Arm quickly to catch incoming threats.

CLOSE-IN WEAPON SYSTEMS [CIWS]

Hard-kill protection systems which use high volume of fire or accurate, intense lasers to counter incoming projectiles and disrupt coherent beams of energy. CIWS (pronounced "see-whiz") equipment is found primarily on Defender CTs as a bread and butter option for extending protective envelopes onto more fragile allies, like Artillerists and Commanders.

CHAFF

Simple, lightweight disruption systems that use small grenades to propel obscurants, noisemakers, and thermal-active material into the air around a user. Somewhat uncommon on Anvils, Chaff nevertheless sees use as a cheap and effective way to temporarily ward off all kinds of attacks, from cannon rounds to guided missiles.

ACTIVE DEFENCE SYSTEMS [ADS]

Sophisticated, lightweight hard-kill protection systems which track and interrupt incoming projectiles and coherent beams. These high-tech solutions began cropping up in regular service as a result of high-tech weaponry being employed as the 90s progressed, and now they are commonly found on Important linchpin units like Anvils and spearhead tanks.

SPARE MAGAZINES

Simple ammunition canisters or pylons which can carry conventional ballistic munitions and energetic fuel cells. The standard M1 and M2 Common Ammunition Grouping Equipment (CAGE) designs have been licensed to countless manufacturers across the world, and while each design may differ slightly from one another, they all achieve the same effect.

AUXILIARY POWER UNIT [APU]

Commonly found on most modern military vehicles, APUs allow vehicles to access basic electrical functions without running their engines. While Anvils possess internal APUs, they may mount additional ones which interface with their Generator, providing both extra energy production and storage.

DECOY DISPENSERS

Launchers which fling or deploy a rapidly-inflatable balloon with a heavy metal platform typically filled with electronic warfare equipment or explosives. This unorthodox equipment is typically used by unorthodox designs looking to control the battlefield through subterfuge, and as a result Decoy Dispensers are almost exclusively used by Recon CTs.

CHIPSETS

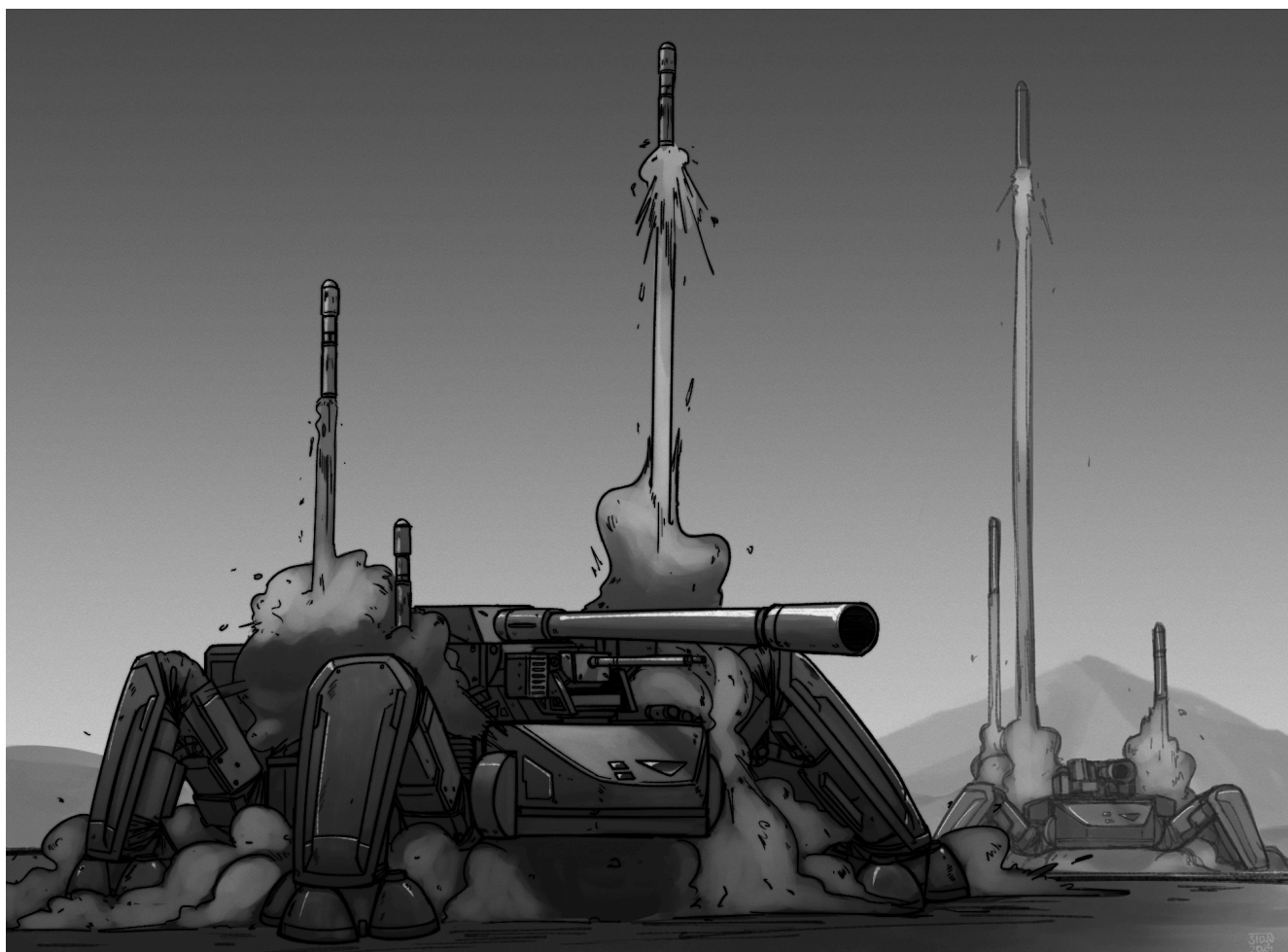
Of all Gear types, the LCA is perhaps the most unique, and perhaps the most powerful. In the hands of a talented Commander, a single LCA can significantly increase the chances of victory, and turn the tide of battle with just a few actions. The source of the LCA's power is its **Chipsets**.

Chipsets are supportive actions which can buff allies, debuff enemies, or even summon new Units to fight with you. There are five types of Chipsets: Command, Control, Support, Interference, and Special.

Each LCA can carry a certain number of Chipsets, depending on the model of LCA. Each Chipset has its own action speed, range, and resource cost. Individual Chipsets must be loaded into the LCA prior to the start of a Sortie. LCAs always have access to Command Chipsets and do not need to load them.

Support Chipsets are dependent on allied support in the area of the Sortie. If no support is available, there is no reason to load a Support Chipset.

Special Chipsets are unique to specific LCAs and can only be loaded by that specific LCA.



NAV Type02 Vultures launching missiles at their Commander's designated target. Support Units such as these can linger around the edges of a battlefield and launch attacks at long range, provided they have cueing from an allied LCA.

ERRORS AND CONDITIONS

While military-grade hardware is designed to be robust and reliable under strenuous conditions, metal fatigues, electronics short, and sensors blink out, seemingly at the most inopportune times. METALLURGENT tracks these events in two ways: **Errors**, which are internal electromechanical problems, and **Conditions**, which are caused by the environment or some other external factor.

ERRORS

Errors are electromechanical issues which affect a Unit's ability to function correctly. They run the gamut from benign to deadly, depending on the kind of Unit suffering from them, and can easily put a hole through an otherwise solid strategy.

Units may only have one copy of each Error at a time, except for ERR: OFF and ERR: ACT, and Errors do not stack unless they target different Gear or Components.

If no valid options exist for an Error to target, or if the Gear and Components an Error would affect are not present on the afflicted Unit, the Error does not take effect. For instance, ERR: DRV cannot be inflicted on a Unit which has lost its Mobility Base, as the drivetrain has already been Disabled.

There are two types of Errors: **Generic Errors**, which can affect any Unit, and **Special Errors**, which only affect Anvils and SP Units. When an Error is obtained, it takes effect at the end of the triggering Activation, or, if there is no triggering Activation, it takes effect immediately.

Regardless of type, Errors may only be cleared during a Unit's Emergency Upkeep. A Unit must spend its Refresh Cost to clear each individual Error.

GENERIC ERRORS

OFFLINE [ERR: OFF]

This Error can affect Gear and Components. The affected Gear or Component deactivates, becomes unsustained, or otherwise turns off. While suffering ERR: OFF, the Gear or Component provides no benefits, cannot be activated or sustained, and any actions which use that Gear or Component cannot be taken.

For instance, if an Anvil's Mobility Base suffers ERR: OFF, that Anvil cannot Flank, as its Mobility Base is used to determine Speed. Electronics Components which suffer ERR: OFF may not be turned back on, as the Refresh Cost is associated with the Electronics. Core Components which suffer ERR: OFF put the Unit into the SHUTDOWN Condition as soon as the Error's effect is resolved.

Additionally, Gear mounted to a Component suffering ERR: OFF cannot be activated or sustained, and passive Gear with an EN, Charge, or Heat cost provide no benefits. If a Component with EN Drain suffers ERR: OFF, its EN Drain is not factored into that Unit's EN Output until that Component is turned back on. Passive Gear without a cost, such as Shields, are immune to ERR: OFF and are not eligible targets for ERR: OFF.

MAIN SYSTEM [ERR: SYS]

This Error affects an entire Unit. The affected Unit must spend 1 additional EN whenever it spends EN and 1 additional Charge whenever it spends Charge. This Error does not impact sustained costs or passive costs. Additionally, this Unit does not gain EN during Emergency Upkeep, however Anvils may still gain their Critical Output.

DRIVETRAIN [ERR: DRV]

This Error affects a Unit's Mobility Base. The affected Unit takes 1 Special Damage to the Mobility Base whenever it spends Move Speed, Charge, or burns Fuel. Free movements which do not use Move Speed (such as those granted by the Agile Keyword or movement due to Sideslip) do not inflict damage.

DEFENCE [ERR: DFN]

This Error affects a Unit's Components and Gear which carry BID capabilities. The affected Unit must spend 2 additional EN to take a basic BID action. This Error does not impact BID actions derived from Gear (such as Activating ADS).

ATTACK [ERR: ATK]

This Error affects a Unit's Components and Gear capable of making an Activation. The affected Unit reduces the Accuracy of all its Activations by 2.

SENSORS [ERR: SEN]

This Error affects a Unit's FCS. The affected Unit may not Activate or maintain Gear, Component, or Skill effects outside of its Nose Arc. BID actions and passive Gear, such as Shields, are unaffected by ERR: SEN. Units with the High-Speed Traverse, Turreted, or Gimballed Traits suppress those Traits while they have this Error.

For instance, if a Unit suffering ERR: SEN has a CIWS and attempts to Intercept an incoming attack which Hits an ally in its Aft Arc, the attempt will fail, however it may still use its basic Intercept.

COMMUNICATIONS [ERR: COM]

This Error affects a Unit's Core and Electronics, or similar Component(s). The affected Unit may not spend Orders or receive the benefits of allied Orders. Additionally, the affected Unit is treated as being on its own team for the purposes of effects which state "allies," and regards all targets as hostile.

SPECIAL ERRORS

COOLING [ERR: CLG]

This Error affects a Unit's Generator and all Gear which generates Heat. The affected Unit generates 1 additional Heat whenever it generates Heat. This Error does not impact sustained costs or passive costs. Additionally, this Unit does not dissipate Heat during Emergency Upkeep.

ACTUATOR [ERR: ACT]

This Error affects a Unit's Arm. Actions and Activations using this Arm lose 2 Accuracy and cannot benefit from Agility or Strength.

ROTATION [ERR: ROT]

This Error affects a Unit's Core. The affected Unit reduces its Block Bonus by 3, to a minimum of 0.

ACQUISITION [ERR: ACQ]

This Error affects a Unit's Electronics. The affected Unit reduces its Intercept Bonus by 3, to a minimum of 0. This does not affect other sources of Intercept Bonuses.

MOBILITY [ERR: MOB]

This Error affects a Unit's Mobility Base. The affected Unit reduces its Dodge Bonus by 3, to a minimum of 0.

CAMERA [ERR: CAM]

This Error affects a Unit's Electronics and FCS. The affected Unit gains no benefits from its FCS Targeting Type. Additionally, the affected FCS' Inner Range is set to 0, and FCS Inner Range bonuses are nullified.

CONDITIONS

Compared to Errors, which can usually be flushed out by quickly throwing a breaker or two, resetting screens and control surfaces, or giving the central console a good thwack, **Conditions** are effects which stem from a source external to the vehicle. Environmental hazards and hostile actions can inflict Conditions.

In all cases, Conditions are applied much in the same way as Errors: they take effect at the end of the triggering Activation, or, if there is no triggering Activation, they take effect immediately.

Only one copy of a Condition may be applied to any Unit, and those Conditions do not stack. Certain Conditions override others, such as STUCK overriding SLOW. These stipulations are called out in the rules of each Condition. Unlike Errors, Conditions apply to a Unit regardless of its state, and unless that Unit has a Keyword or other specific effect preventing a Condition, that Unit is susceptible to all Conditions at all times.

Conditions may only be cleared during a Unit's Emergency Upkeep. The cost to clear a Condition is based on the Condition in question, but usually it will be the Unit's Manoeuvre Cost.

PRONE

"Tell me again, Corporal, how you managed to flip over a God-blessed LCAC."

This Condition can affect all Units and replaces the LOW Condition. Units which are PRONE must spend 2 additional Move Speed to enter hexes, gain 1 DV, and are treated as being half their Height in Levels. Units which are PRONE treat all incoming Activations as if they strike the Aft Arc, regardless of Line of Fire. Units which Kick or Ram a PRONE Unit roll on the normal Hit Location table instead of automatically striking the Mobility Base. Units which are PRONE may not Activate Gear, take BID actions, Manoeuvre (unless clearing a Condition), or Activate Skills. Sustained and Passive Gear and Skills are unaffected.

A Unit with at least one functional Arm or Armature Component may spend its Manoeuvre Cost to clear PRONE, returning to its normal Height, or it may gain the LOW Condition. Clearing PRONE terminates movement. Striding Units may choose to become PRONE any time during their Turn or whenever they would be able to BID.

Units which do not have an Arm or Armature Component, or specialised Gear, may not clear PRONE by themselves. Units which have an Arm or Armature Component may spend their Manoeuvre Cost to remove PRONE from an adjacent Unit.

LOW

"He's too short, sir! He's ducking every shell!"

This Condition can only affect Striding Units. Units which are LOW must spend 2 additional Move Speed to enter hexes and are treated as being half their Height in Levels. Units which are LOW reduce their Dodge Bonus (if any) by 2, to a minimum of 0. Activations targeting Units which are LOW treat their first result of 6 as a single success instead of two. Adjacent Activations, whether ranged or melee, ignore this and instead gain +1 Accuracy.

A Unit may spend 2 Move Speed OR its Manoeuvre Cost to clear LOW, returning to their normal Height.

SLOW

"Come on, you damn thing! Move!"

This Condition affects all Units. Units which are SLOW must spend 1 additional Move Speed whenever they spend Move Speed. Additionally, such Units do not benefit from positive Accuracy when casting dice to Activate Melee weapons or make melee attacks (negative Accuracy still affects these dice pools).

A Unit must spend its Manoeuvre Cost to clear SLOW. Allied Units may spend their Manoeuvre Cost to change the Facing of a Unit which is SLOW.

STUCK

"Hey, Charlie? What is it, that ain't exactly water, and it ain't exactly earth?"

This Condition affects all Units and replaces the SLOW Condition. Units which are STUCK may not spend Move Speed. Such Units may not change Facing or Flank. Additionally, such Units do not benefit from positive Accuracy when casting dice to Activate Melee weapons or make melee attacks (negative Accuracy still affects these dice pools).

A Unit must spend its Manoeuvre Cost to clear STUCK. Allied Units may spend their Manoeuvre Cost to change the Facing of a Unit which is STUCK.

STAGGERED

"Shut up! Stupid alarm! I decide when I'm do—"

This Condition affects all Units. Units which are STAGGERED treat the next KE, CE, or TE Hit as if it had the PEN Payload. Additionally, while STAGGERED, the Unit's BID Bonuses are reduced by 3 each, to a minimum of 0. This affects all sources of BID Bonuses (such as CIWS).

A Unit may spend its Manoeuvre Cost to clear STAGGERED. The STAGGERED Condition is automatically cleared when the Unit receives KE, CE, or TE damage (after the Activation has resolved).

PAINTED

"Some people still believe, 'What you can't see can't hurt you.'"

This Condition affects all Units. Activations which target PAINTED Units reduce Par by 1 when using a LSG Payload. Additionally, all ranged activations gain 1 Accuracy against that target. These benefits apply only to the Unit inflicting the PAINTED Condition and its allies.

A Unit may spend its Manoeuvre Cost to clear PAINTED. The PAINTED Condition is automatically cleared when the Unit moves out of Constraints of the PAINTING effect.

LOCKED

"Fox one!"

This Condition affects all Units. Activations which target LOCKED Units reduce Par by 1 when using a SMG Payload. Additionally, all ranged activations ignore that target's Flanking DV bonus (if applicable). These benefits apply only to the Unit inflicting the LOCKED Condition and its allies.

A Unit may spend its Manoeuvre Cost to clear LOCKED. The LOCKED Condition is automatically cleared when the Unit moves out of Constraints of the LOCKING effect.

OBSCURED

"He's there! No, there! He's- where the hell did he go?"

This Condition affects all Units. Units which occupy an area of Obscurant, or which are targeted by an Activation drawing Line of Fire into an area of Obscurant, are OBSCURED. OBSCURED Units reduce their Dodge Cost by 1, to a minimum of 1. OBSCURED Units which do not have the ability to Dodge instead gain a Dodge Bonus of 1 and a Dodge Cost of 2, which cannot be further modified.

The OBSCURED Condition is automatically cleared when the Unit exits the area of Obscurant and cannot otherwise be cleared.

JAMMED

"Commander? Come in! Gold One, come in! Sarah! Guys...?"

This Condition affects all Units. Units which are JAMMED cannot communicate with Units outside LOS. Additionally, while JAMMED, the Unit suffers the following additional effects:

- CIWS, ADS, and Counterfire Gear reduce their Intercept Bonus by half.
- Command and Support Chipsets may not be used on or by a JAMMED Unit.
- FCS, Radar, and LCA Outer Ranges are reduced to their Inner Ranges.

The JAMMED Condition is automatically cleared when the Unit moves out of Constraints of the JAMMING effect. The JAMMED Condition is also automatically cleared if the source becomes SUPPRESSED.

SUPPRESSED

"You know the rules, Scrapper. You fry it, you buy it."

This Condition affects all Units. Units which are SUPPRESSED cannot inflict the JAMMED Condition on other Units. JAMMED effects which have already been applied and are not Gear-dependent, such as from EMI Payloads, are not affected. Additionally, Units which are SUPPRESSED may not use Interference Chipsets.

The SUPPRESSED Condition is automatically cleared when the Unit moves out of Constraints of the SUPPRESSING effect.

DAZZLED X

"My God... It's full of stars...!"

This Condition affects all Units which benefit from a Targeting Type. Units which are DAZZLED gain X Accuracy during Activations which target the source of DAZZLING and lose X Accuracy during Activations which target anything else. Units ignore the DAZZLED Condition if the source is in their Aft Arc.

The DAZZLED Condition is automatically cleared when the Unit ends its Turn out of Constraints of the DAZZLING effect.

HIDDEN

"Wait for it..."

This Condition can only affect Surface Units. Units which are HIDDEN are not placed on the Battlemat, and their controller instead marks their location. They do not reveal this location to enemy teams. While HIDDEN, a Unit cannot be targeted by attacks or effects, but attacks and effects which have areas (such as Area Effect Payloads, PRJ and LIN weapons, or Jammers) still affect that Unit. A Unit must occupy a hex with Cover to be HIDDEN.

A HIDDEN Unit may also choose to reveal itself by using a surprise attack. A Unit using a surprise attack may Activate one Gear or Skill and sustain any number of Gear or Skills. This Activation may not take place during another Activation, and upon resolution, clears the HIDDEN Condition from the HIDDEN Unit. The surprise attack's Activation reduces Par by 1, if applicable.

HIDDEN Units may clear their HIDDEN Condition at no cost at any time, if they do not wish to make a surprise attack. When a HIDDEN Unit clears its HIDDEN Condition, it joins the Initiative order at the end of the Round, and may not take a Turn during the Round in which it lost its HIDDEN Condition. HIDDEN Units must start the Sortie HIDDEN, and cannot gain the HIDDEN Condition after the Sortie has begun, unless otherwise specified.

The HIDDEN Condition is automatically cleared when:

- The HIDDEN Unit Spends Move Speed.
- The HIDDEN Unit Takes a BID action.
- The HIDDEN Unit Occupies a hex with 0 Cover Density.
- The HIDDEN Unit Sustains or activates an effect which affects a hostile Unit, such as a Jammer, Laser Designator, or Tracking FCS Lock.

RUNNING ON FUMES

"I'm fine, see? It's on 'E', which stands for... excessive amounts of fuel?"

This Condition can affect all Units which track Fuel. Units which track Fuel automatically and immediately gain this Condition when they reach 0 Fuel. Units which are RUNNING ON FUMES reduce their EN Output to 0. Sustained Gear becomes unsustained immediately and may not be sustained until the Condition is cleared.

The RUNNING ON FUMES Condition is automatically cleared when the Unit regains 1 point or more of Fuel. Note that Fuel which is stored in Gear, such as Spare Fuel Tanks, does not influence whether or not a Unit obtains the RUNNING ON FUMES Condition. The Fuel inside the Unit's Generator (or equivalent Component) is what matters.

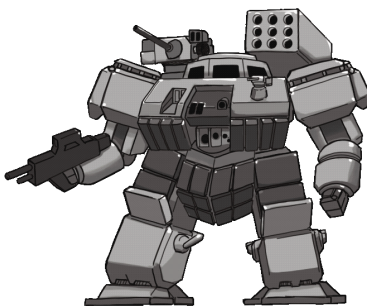
SHUTDOWN

"It stopped! We killed it! Take that, you big metal bastard!"

This Condition can affect all Units. Units which are SHUTDOWN reduce their DV to 2 and cannot use or benefit from Components or Gear. Sustained Gear is automatically unsustained. Units which are SHUTDOWN cannot use or benefit from Orders or Skills, and they cannot naturally generate or spend EN, Charge, or Move Speed. SHUTDOWN Units are not removed from the Initiative order.

Units which are SHUTDOWN regain EN equal to their EN Capacity and dissipate Heat equal to their Heat Tolerance during Upkeep and Emergency Upkeep. All Errors are cleared for no cost. Conditions are not cleared. SHUTDOWN Units cannot be communicated with and cannot query STENO for information.

Units may Power Down during their Upkeep, at which time they become SHUTDOWN. SHUTDOWN Units may only clear this Condition by taking the Power Up action during Upkeep. When a Unit clears SHUTDOWN, it may take the rest of its Turn as normal. A Unit may not Power Up and Power Down in the same Round.



GsKpfz-88 Gannet sticker from a children's craft book

DAMAGE STEPS AND DESTRUCTION

All Units, from thin-skinned logistics vehicles to mighty Anvils, are susceptible to damage. When a Unit accrues enough damage, and one or more Components reach 0 AP, that Unit suffers a **Damage Step**. If that Unit suffers too many Damage Steps, it may be **Disabled** and removed from play.

Components exist in four states of health:

NOMINAL

The Component has taken no or superficial damage and is functioning normally.

DAMAGED

The Component has taken modest damage and has been temporarily impaired.

DEGRADED

The Component has taken heavy damage and has been permanently impaired.

DISABLED

The Component has taken severe damage and is thoroughly crippled.

Units which suffer a Damage Step roll on their **Critical Damage Table** according to the health of the Component.

For instance, a Component advancing from Nominal to Damaged would roll on the Damaged Critical Damage Table.

Each Unit Type has a unique set of Critical Damage Tables, with various negative effects that can outright cripple that Unit before it's Disabled. In addition to these rolled effects, some Critical Damage Tables include automatic effects. Automatic effects always happen, and, while not necessarily catastrophic, can complicate recovery.

If a Damage Step result would not apply in full to a Unit, that result is considered to be 1 value lower than shown, to a minimum of 1.

For instance, if an Anvil would receive Critical Damage that inflicts Error: OFF to Gear mounted to the Core, but that Anvil has no Gear mounted to the Core, that Damage Step result is reduced by 1.

To roll on a Critical Damage Table, a Unit's Component must first reach 0 AP, after which a d6 is cast. Generally, the controller of the Unit which inflicted that Damage Step will cast the Damage Step die. When the Critical Damage has been resolved, the Component's AP refills to its maximum. Excess damage (also called overflow damage) is arrested and does not spill over into the new set of AP.

All Units may absorb a number of Damage Steps equal to their number of individual Components (Hit Locations) plus 1.

For instance, a T-72 tank, which has two Components, can suffer up to three Damage Steps. If it takes a fourth, it is then automatically Disabled and removed from play.

Certain Units, such as those with the Sturdy or Fragile Traits, have modified Damage Step allowances. Anvils can take up to 18 Damage Steps before they are automatically removed from play (though they are likely to be Disabled much earlier anyways).

Disabled Components may also be **Destroyed**. Certain Damage Step effects result in a Component being Destroyed, which makes that Component impossible to use or repair. In many cases, Units which have one or more Components Destroyed will be rendered impotent insofar as combat is concerned.

Components begin a Sortie with full AP and all Components set to Nominal health. Special scenario considerations and forms of persistent resource tracking may affect this assumption. When a Component is Disabled, it becomes an invalid target when determining Hit Locations during an Activation, and it cannot take additional Damage Steps. The same stipulations apply to Destroyed Components. When a Hit Location result would target a Disabled Component, cast that die again.

Units which reach their maximum number of allotted Damage Steps or which have a necessary Component Disabled become Disabled themselves. For Anvils, the only truly necessary Component is the Core. For non-Anvils, the necessary Component may be the Hull, the Core, the Fuselage, or some other Component in which the pilot or crew resides. To determine whether or not a Component is necessary, consider whether or not the Unit is capable of influencing the battlefield without that Component, or if it is even able to take any actions. If no, then that Component is very likely necessary. The loss of these types of Components causes that Unit to be removed from play.

Disabled Units are removed from play after resolving the effects of Critical Damage and any immediate effects which happen as a result (such as an Air Crash from a flying Unit that had its tail cut loose). This may refactor the Initiative order, cause sustained effects to end, or cause other knock-on effects. These effects should be resolved according to their timing or, if no timing exists, it is up to the Unit's controller. Persistent effects which are independent of that Unit, such as Obscurant smoke or Mines, are not removed from play. Units which are removed from play due to Damage Steps may not rejoin the Sortie.

Units which are removed from play cannot be further affected even if, in a physical sense, that Unit would still be on the field.

For instance, if an M60 Patton tank was Disabled but not Destroyed, and its crew bailed out, the vehicle would physically remain on the field. However, for the sake of gameplay, it cannot be further affected by anything, and is mechanically treated as being nonexistent for the rest of the Sortie.



An Anvil pilot argues with a maintainer about his M2 Diamondback

PLAYING THE GAME

That's a lot of rules. How does this game actually get played?

First, you will need a Coordinator and one, two, or three players. A single player using an Anvil is known as a Free Agent. A pair of players using Anvils is known as a Headhunter Team. Three players using Anvils is known as a Chain. It is possible to play with a Chain of four players, however such games are not recommended for new players (or new Coordinators). In the many years of testing this game has undergone, a Chain of three is the sweet spot.

When the players are assembled and the Coordinator is satisfied with the roster, the **Planning Phase** begins. The Planning Phase is a pre-Sortie length of time in which the Coordinator will distribute game materials to the players. There is no set time limit for a Planning Phase, but generally a Coordinator will give their players a few days to construct their Anvil (or assemble their Platoon), choose Skills, review the Battlemap, and so on.

The major component of the Planning Phase is **Intel**. Intel includes known and unknown variables which will be present during the Sortie, an image of the Battlemap and the Sortie's DZs, the Sortie's **Objectives**, and relevant notes such as restricted parts or limits to the number of Skills players can have. Starting Platoons and their Units may be elucidated here as well. Players rarely know reinforcements ahead of time, so the Coordinator can use this to their advantage to tweak the Sortie's difficulty on the fly if things are too easy or too hard.

Intel should always include the Main Objective, any Secondary or Bonus Objectives, Weather, Time, and Light, Sortie-specific Chipsets, and any restrictions specific to the Sortie. Battlemap Terrain may also be included, with Cover Densities or Structure AP enumerated ahead of time.

Generally, the Planning Phase also includes a **Briefing**. The Briefing can be as fluffy or as mechanical as the Coordinator likes, and serves as a simple narrative vehicle to set the tone of the Sortie. If the Sortie is part of an Operation, the characters involved may be persistent across multiple Briefings.

Currently, METALLURGENT is not playable on a physical table. As a result, virtual tabletop environments are ideal for playing Sorties. Coordinators are encouraged to use whichever virtual tabletop they desire. It is their responsibility to ensure all of their players have access to that environment before the Sortie begins. The Coordinator is also in charge of setting the game up in their chosen virtual tabletop environment, including the Battlemap, DZs, starting Units, reinforcing Units, and any additional elements necessary to mash some metal.

When the Sortie is over, the Coordinator provides a **Debriefing**. The Debriefing qualitatively assesses the players' performance during the Sortie and quantitatively marks each Objective as "complete" or "failed." XP, contract payment, and other such items are handled during the Debriefing as well.



Some Sorties may be played as part of an Operation, but many are not. Individual Sorties which are not attached to a larger narrative are known as **Pickup Games**, or **PUGs** for short. Players may have multiple restrictions to work around when playing a PUG, such as "PAA parts only" or "no Units over 45 ST." Be sure to check the Intel before deploying.

AFTERWORD



"Good day, Mr Strong," said a man in a crisp, dark suit whose voice rang darker still, "your cooperation is most appreciated. Before we begin, I trust that you understand why you are here?"

Chuck Strong, Chief Warrant Officer and former Anvil pilot, furrowed his brow. He knew that he had been brought to this little bureaucratic hole-in-the-wall for questioning. He knew it had something to do with his service record. He did not, however, know what exactly this gaunt, monochromatic man wanted from him.

"Reckon I may," Chuck replied evenly. The steel chair he sat in sank its chilly nails into his back. In the room where he stared at his interrogator, a single overhead lamp flickered plaintively. There were no windows. There were no decorations. A table separated the two men, and a gulf of silence too.

The dark man produced a pristine envelope from his polished leather satchel. He opened it and displayed its contents on the cold steel table. Chuck noticed his name on the dossier. Images accompanied it. Every sheet of paper boldly stated "TOP SECRET" at its head and foot, and each bright-orange stamp had been meticulously set at perfect angles and perfect spacing.

"Charles Abraham Strong, born October tenth, nineteen-seventy-three, in Boston, Massachusetts, to a Mr and Mrs Hamish Strong. Attended Boston College and earned a Bachelor's Degree in Mechanical Science before pursuing a Master's Degree in Aeronautical Engineering at University of Notre Dame, Indiana. Upon completion of your schooling, you joined the Air Force and obtained the rank of Warrant Officer, and you became a flight test pilot at Barry Goldwater Test Range with the eighty-eighth Flight Test Squadron, also known as 'the Screaming Eagles,' the man recited. He did not read the words— he had them committed to memory.

"Terrible season for the Red Sox," the man continued. Chuck knew this trick, but the mention of his beloved home team wouldn't go unanswered.

"Aye," Chuck replied, huffing a sigh. "But dere's more trouble in th' world these days dan jist no-hitters."

"You earned the callsign 'Bishop' before becoming an Anvil pilot with the one-hundred-first Trailblazers. How did you earn that name?"

"I reckon you know that already."

"Indulge me. Please."

"Well," Chuck replied with a half-shrug, "I was braught up in d' service o' the Lord, and between that, and havin' a penchant fer pushin' out a little sideways when tryin' ta fly straight, well... it made sense."

"Mm. And your relationship with God. Sturdy?"

"Rock-solid," Chuck affirmed, crossing himself.

"Mr Strong," the man continued, "you have been brought here today not to discuss the misfortune of the Red Sox nor to elaborate on your history, of which we are both already well-aware. Today, I want to ask you the same questions I asked the rest of your former Chain. Chief Warrant Officer Bell, Lieutenant Colonel Buster, and Lieutenant Colonel Rose were all very cooperative. Of course, I would have brought you in sooner, but your holiday to Ireland... I didn't want to interrupt it."

Chuck did not respond. His face slowly calcified.

"Mr Strong, have you had any communications with your former Chain within the last year, excluding any communications pertaining to official government responsibilities?"

"Nay."

"Mr Strong, have you intended to establish communications with your former Chain within the last year, excluding any attempts which pertain to official government responsibilities?"

"Nay."

"Mr Strong, are you aware of the subject matter of the images which you see here on the table?"

"Aye."

"And are you aware that these images include depictions of Anvils which match the last-known configuration of the Anvils employed by your Chain?"

"Aye."

"Mm," the man intoned, making precise notes in a clean notebook. He may as well have been a surgeon to the page, unerring in both stroke and order. As he dotted the period on his anecdote, he resumed his interrogation.

"Mr Strong, are you aware that during Operation Midnight Hammer, an event was observed which may be interpreted as a missile launch, or similar, from the area of operations in which you were deployed?"

"Aye." Weariness began to creep into Chuck's voice. He should have known.

"And are you aware that such an event may be directly correlated to the Y2K Disaster, pending further investigation, of which this interview may be a part?"

"Aye... I had nothin' ta do wid that," Chuck stated. "Not me, not Riley, not--"

A raised hand ushered silence back into the cold room. The fluorescent light above tinkled and flickered.

"Mr Strong, are you currently in possession of the Anvil which you operated during Operation Midnight Hammer?"

"Nay."

"Have you attempted to regain access to your ability to pilot Anvils and associated combat mech units?"

"Nay."

"Have you attempted to reactivate yourself in the Air Force or similar branch of the Federal States of America military, or, any portion of the Federal States of America government which is not directly related to the protection programme of which you are a part?"

"Nay."

"Have you attempted to join the military or government of any secession states or nations, entities, or groups which are not the Federal States of America?"

"Nay."

"Then, Mr Strong, please explain to me why your vacation to Ireland was extended by two weeks."

"I stayed long fer my great-uncle."

"Your great-uncle Kelly, I presume?"

"Aye. He was sick, and I stayed wid him. Prayed over him. May th' good Lord rest his soul."

"And when he passed, three days after your extension, why did you neglect to alert your programme handler that you no longer had any reason to be in Ireland?"

"That's an awful thing ta say," Chuck murmured.

"Answer the question, Mr Strong."

"I... I was grieving. We all were. Dere ain't much left o' us anymaur. I didn't place a call fer I wasn't in th' headspace."

"Mr Strong, did you alert your programme handler when you returned to the North American continent?"

"Aye."

"Did you tell your programme handler that you arrived in an airport in a state which is no longer recognised as part of the Federal States of America, and therefore no longer part of the United States of America?"

"... Nay."

"Why not?"

"I wasn't thinkin' of it. I called him when I arrived—"

A hand went up again. The room was quiet again, except for the dull hum of the overhead light, and the scritch-stratch of finely-calibrated penmanship.

"Mr Strong, are you aware of the remedial actions necessary to maintain programme protection?"

"Aye."

"Have you undertaken those actions?"

"Aye."

"Have you alerted your programme handler of your successful completion of those actions?"

"Aye."

"Mr Strong, did you bring anything back with you from Ireland?"

"Drink. A fine scarf. A pair o' books Kelly gave ta me 'fore he went."

"What type of drink?"

"Erskine's Own. A whiskey."

Chuck realised what the man was getting at.

"Now that– no, don't hush me, I'll save us both the time! That whiskey was mine ta keep, or mine ta give, and I gave it away ta da nice young man who drove me all th' way up ta Baltimore, 'fore I caught a train to get back. It went missin' not 'cause it was contraband, but 'cause I thought it, wid some cash, made a handsome repayment fer that man's work."

The dark man, in dark ink, wrote swiftly. With a sharp thud he completed his notes and shut his book with a snap that sounded like a gunshot. He collected the papers on the table and neatly shuffled them back into their envelope, before neatly stashing the whole ordeal into his carefully-maintained satchel. He stood and gestured to the grey metal door behind him.

"Very well, Mr Strong. I have gathered what I need. You may go."

"What's all dis about, anyhow?" Chuck complained, getting to his feet. He may have been taller than his jailer, but miniature in comparison to such an overwhelming presence.

"You've run drough me, and Buster, and Riley, and Sophia, and you won't tell me what's going on, or how even you intend to use all 'is... information!"

The interrogator produced a pair of jet-black glasses and delicately polished their lenses with a cloth.

"I will give you one answer, Mr Strong, the same answer I gave to the others," he said, donning his glasses. "There are some who believe that you and your former Chain are responsible for the Y2K Disaster. It is up to me, and my team, to ensure that you and your former Chain, and America as a country, ailing as she is, are cleared of such accusations."

"You–"

"You will not discuss this interview with anyone, as per your understanding of the agreement made between you and the Office of National Security."

"... Aye, am aware."

"Furthermore, your travel credit has been reinstated, however, I personally recommend remaining stateside for some time. There are more eyes than just mine on you, Mr Strong," the sallow man added pointedly. Chuck deflated with a sigh.

"Have you any further questions for me?" asked the interrogator. He undid the heavy lock on the metal door to the fluorescent prison cell, opening the room's stale air up to a plain hallway with unadorned walls and grey, lifeless carpet. He gestured for Chuck to leave. There would be no more questions.

"Nay," replied Chuck. He passed by the black-clad spectre and left, fishing desperately for a cigarette in his breast pocket. None were found. What a terrible day to be tobacco-free.

"Good day, Mr Strong."



Thank you for reading the METALLURGENT 0th Edition Ruleset!

Please be sure to visit the METALLURGENT website at metallurgent.net or use the QR code at the front of this book to access the website from a mobile device.

Be sure to also check out our social media. Our Discord, in particular, is an excellent hub of resources and players. Joining the Discord is the surest way to stay up to date with Assembly Sheet changes, rules updates, and (eventually) errata for both printed and electronic publications.

Noah and I couldn't do all of this without you, so again, I want to thank you for giving this game a chance, and for spending some time with the world of METALLURGENT. This book will eventually be deprecated, with the release of 1st Edition, but it will always serve as a reminder of where our rubber met the road.

Following this page are glossaries of terms and abbreviations which should prove helpful to anyone who isn't intimately familiar with all the jargon that flies around. Reading through it is a great way to get into the proper mood for playing METALLURGENT, too!

Now get out there and mash some metal!



"En route!"

INDEX

THE SILVER AGE_____	4
SILVER RULES_____	7
QUICK REFERENCE RULES_____	8
THE NUTS AND BOLTS_____	11
ENTITIES AND DICE_____	13
ENERGY AND HEAT_____	15
COMBAT TIME AND INITIATIVE_____	17
UPKEEP AND EMERGENCY UPKEEP_____	18
ACTION SPEED_____	20
ATTACKS AND ACTIVATIONS_____	21
INDIRECT ATTACKS AND DRIFT_____	22
CONSTRAINTS_____	23
BLOCK, INTERCEPT, DODGE_____	24
DAMAGE TYPES_____	25
FALL DAMAGE_____	26
CRUISING AND FLANKING MOVEMENT_____	28
FORCED MOVEMENT_____	29
FACING AND ARCS_____	30
MANOEUVRES_____	31
BATTLEMAP AND ALTITUDES_____	37
ELEVATION, LINE OF SIGHT, AND LINE OF FIRE_____	38
COVER_____	39
TERRAIN_____	40
STRUCTURES AND SUPPORTING WEIGHT_____	44
HEIGHT AND ENTRY AND CEILINGS_____	45

LIGHT_____	48
WEATHER_____	49
TEMPERATURE_____	51
DEPLOYMENT ZONES_____	51
COMBAT TASKS_____	60
CONSTRUCTION AND ASSEMBLAGE_____	62
JETTISON_____	62
CORE COMPONENT_____	63
MOBILITY BASE COMPONENT_____	63
ARM COMPONENTS_____	65
GENERATOR COMPONENT_____	66
COOLING_____	66
OVERHEATING_____	67
ELECTRONICS COMPONENT_____	68
FIRE CONTROL SYSTEM SUBCOMPONENT_____	69
SYNTACTIC TARGET ENTITY NOMENCLATURE OMNIBUS [STENO]_____	70
GEAR AND GEAR TYPES_____	71
FUNCTIONS AND PAYLOADS_____	74
CHIPSETS_____	77
GENERIC ERRORS_____	78
SPECIAL ERRORS_____	79
CONDITIONS_____	80
DAMAGE STEPS AND DESTRUCTION_____	84
PLAYING THE GAME_____	86
AFTERWORD_____	87

GLOSSARIES

ABBREVIATIONS

AA	Anti-Aircraft	ERR: CLG	Cooling Error
AAA	Annie's Arms and Armour	ERR: COM	Communications Error
ADD	Anvil Diagnostic Display	ERR: DFN	Defensive Error
ADS	Active Defence System	ERR: DRV	Drivetrain Error
AFV	Armoured Fighting Vehicle	ERR: MOB	Mobility Error
AMES	Anvil-Mountable Equipment System	ERR: OFF	Offline Error
ANVL	Advanced Networked Vehicular Linkage	ERR: ROT	Rotation Error
APC	Armoured Personnel Carrier	ERR: SEN	Sensors Error
APU	Auxiliary Power Unit	ERR: SYS	Main System Error
ART	Artillerist	EU	European Union
AZ	Ak Zholy Laser Highway	EWACS	Early Warning and Control System
BIT	Built-In Test	EWAR	Electronic Warfare
BP	Breakpoint	EWV	Electronic Warfare Vehicle
C2	Command and Control	FARCOM	Future Armor Research Command
CE	Chemical Energy	FCS	Fire Control System
CIWS	Close-In Weapon System	FW	Fixed Wing Aircraft
CG	Centre of Gravity	GN	Generator Component
CMD	Commander	GP	General Production Mech
COG	Combat Operations Group	GW	Gross Weight
CR	Core Component	HP	Hardpoint
CT	Combat Task	IFV	Infantry Fighting Vehicle
CV	Combat Vehicle	INDY	Independent
DEF	Defender	IR	Infrared
DV	Defence Value	KE	Kinetic Energy
EL	Electronics Component	LA	Left Arm Component
EN	Energy	LAN	League of Arab Nations
ERR	Error	LCA	Local Control Array
ERR: ACQ	Acquisition Error	LEV	Lunar Engineering Vehicle
ERR: ACT	Actuator Error	LEVI	Improved Lunar Engineering Vehicle
ERR: ATK	Offensive Error	LT	Load Tolerance
ERR: CAM	Cameras Error	LV	Light Vehicle

MARA	Martial Aptitude and Resourcefulness Assessment	SP	Skill Points
MB	Mobility Base Component	SPG	Self-Propelled Gun
MiFa	Mirovaya Fabrika	ST	Standard Ton
MPV	Mobile Protected Vehicle	STENO	Syntactic Target Entity Nomenclature Omnibus
MS	Move Speed	SUN	Smialy, Unterreiner, Norman Corporation
μ	Mona	SWAG	Stabilisation, Weight, and Gravity System
PAA	Pan-American Alliance	TCA	Twin Cities Arsenal
PMC	Private Military Company	TE	Thermal Energy
RA	Right Arm Component	TSPI	Time, Space, Position Information
RCN	Recon	USSR	Union of Sovereign Socialist Republics
RW	Rotor Wing Aircraft	VNG	Vanguard
SCA	Section Control Array	WA	Weapon Arm
SNP	Sniper	XP	Experience Points
SP	Special Production Mech	Y2K	The December 31st, 1999 Disaster

ARTY	Artillery Function	LIN	Linear Function
B	Ballistic Function	M	Melee Function
BAL	Balanced Function	PRE	Precise Function
BRST	Burst Function	PRJ	Projector Function
CAL	Calorific Function	RECH	Recharge Function
CAP	Capacitor Function	RFC	Reinforced Function
CTR	Counterfire Function	SEL	Selector Function
DEAD	Deadzone Function	TELE	Telemeter Function
DET	Detent Function	TOP	Top Attack Function
DLFD	Dual Feed Function	TRT	Turreted Function
E	Energetic Function		

AA	Anti-Air Payload	BID+	Telegraphed Payload
ACC	Accurate Payload	BLK	Bulky Payload
ARAD	Anti-Radiation Payload	BLS	Blast Payload
ARM	Arming Payload	BOMB	Bomb Payload

METALLURGENT 0th EDITION RULESET

CLS	Cluster Payload	MINE	Mine Payload
COOL	Cooling Payload	OBS	Obscurant Payload
DEMO	Demolition Payload	OVM	Overmatch Payload
DIST	Distance Payload	PEN	Penetrating Payload
EMI	Noisemaker Payload	PROX	Proximal Payload
EXO	Exothermic Payload	SCT	Scatter Payload
HI X	High Impact Payload	SHK	Shockwave Payload
HVL	High Velocity Payload	SMG	Semi-Guided Payload
HVY	Heavy Payload	STD	Standard Payload
ILUM	Illuminant Payload	TRC	Tracer Payload
JAM	Temperamental Payload	TWO	Two Stage Payload
LRF	Low Reflectivity Payload	VTR	Variable Tracking Payload
LSG	Laser-Guided Payload		

AA	Anti-Air Missile	MM	Micro Missile
AC	Artillery Cannon	MN	Minelayer
AM	Artillery Missile	MR	Missile Rifle
AR	Assault Rifle	MS	Minesweeper
AT	Anti-Tank Missile	MT	Mortar
BD	Bomb Dispenser	OS	Oscillator
CG	Chaingun	PB	Physical Blade
CN	Cannon	PC	Pulse Cannon
DC	Dual Cannon	PD	Piledriver
FT	Flamethrower	PG	Pulse Gun
GL	Grenade Launcher	RC	Rotary Cannon
GP	Gun Pod	RG	Railgun
HM	Heavy Missile	RK	Rocket Rack
HR	Heavy Rocket	RR	Recoilless Rifle
HW	Howitzer	SC	Sniper Cannon
LC	Laser Cannon	SG	Shotgun
LL	Laser Lance	SL	Scatter Laser
LR	Laser Rifle	SR	Sniper Rifle
MD	Mining Drill	XC	Plasma Cannon
MG	Machine Gun	XM	Multi-Missile
ML	Missile Launcher		

JARGON

A-frame	A term for Anvils (chiefly British)
Bandit	A contact which has been identified as an enemy
Beachtown	African solar city and its surrounding area
Bingo	The operational limit of a unit's remaining fuel
Bird	Helicopter (chiefly PAA/EU)
Birdwatcher	Refers to an Anvil pilot using the Sidewinder Core
Blank	A bad STENO readout or an unknown unit which STENO can't identify
Blip	An unidentified airborne unit spotted by an EWACS Radar or FCS
Bloke	A striding mech unit (chiefly British)
Boy band	Derogatory term for newly-formed Chains made up of low-rank officers
Brains	A term for Platoon Commanders and Commander Anvil pilots
Breadcrumbs	A term for mines scattered along a likely path of travel
Brick	A Defender type Anvil or GP, or a hover unit which has been immobilised
Bug	Refers to lightweight non-Anvil mech units which tend to skitter, or Beetle GPs
Bunker	A derogatory term used by mech unit pilots to refer to tanks and similar units
Chain	A squad of three or four Anvils
Chaingang	A company of 5 or more Anvils
Chap	A driving mech unit (chiefly British)
Cheddar	A term for money which isn't Mona
チカチカ (chika-chika)	A term for mech units, usually Anvils (chiefly Japanese)
Chin-scratcher	A derogatory term for EU Anvils, particularly ones with inverted Electronics
Chinesium	Derogatory term for Soviet Chinese parts
Chuck	Chuckwalla or Anvil which uses primarily Chuckwalla parts
ComRec	Combat Recorder; an electronic log of Anvil actions during a Sortie
Contact	A unit which has been electronically or visually spotted but not yet identified
Contractor	A private military company employee
Crucible	An Anvil-on-Anvil engagement
D-Back	Diamondback or Anvil which uses primarily Diamondback parts
Daylight	A request for illumination rounds over the immediate area
Document burner	A grill and accessories for enjoying a meal on duty
Driver	A mech unit which moves using wheels, tracks, or an air skirt
Dump	A term for jettisoning Gear
Dunk	A melee attack made against a non-mech unit, such as a tank.

Dustoff	Medical evacuation helicopter
Evil eye	Refers specifically to the Skorpion ADS, or more generally to a unit's powerful ADS Gear
Fish	Hovercraft on water
FNG	A derogatory term for new recruits/squadmates of low rank
Fog	A request for smoke rounds at your immediate position
Flap check	Refers to using the extendable canopy in Chuckwalla MBs as a cot for a nap
Free Agent	A solo Anvil pilot working with other non-Anvil units
Fry	A term describing an attack with a TE weapon against a target
FUBAR	A situation which has devolved and become a real headache
Горгуля (gorgul'ya)	Term for mech units on guard or garrison duty (chiefly USSR)
Goon	A unit which is directly supporting an Anvil on the battlefield
Goose egg	Affectionate term for Anvil pilots with no combat experience and a MARA score of 0
Headhunter	A member of a Headhunter duo Anvil team
Hellbent	Refers to a mech unit which only has melee weapons left, or which has lost all Gear
High order	Refers to explosive warheads which have successfully detonated
Ingot	A mech unit (usually an Anvil) with all its limbs destroyed
Jack	A term for EU Anvils in the GsKpfz series
Jeep	Infrequently-used term which refers to GPs (chiefly PAA)
Katty	Katran or Anvil which uses primarily Katran parts
Knock it off	Emergency callout to tell someone to cease an action immediately
LHO	Derogatory term for a Sniper type mech unit (chiefly PAA)
Mall cop	Derogatory term for mech unit pilots on garrison duty (chiefly PAA/EU)
Mechtech	A person who works on Anvils, GPs, or SPs
Merc	Shortened form of mercenary
Motorbate	Get moving, leave quickly (chiefly EU)
Nutcracker	Piledriver (chiefly American/British)
OKB	A humorous term for Anvil support and maintenance teams (chiefly USSR)
Phreak	A lesser-used substitute for "spike" (chiefly American)
Pit	The cockpit of a mech unit
Pog	"Person other than grunt," derogatory term for support staff
Puddle	African solar farm
Pull chocks	Leave work for the day
Purge	Another term for jettisoning Gear (chiefly EU)
Rifle	A callout alerting others that you've fired on a target
RTB	Return to base

Rusty	Veteran mech unit pilot or crew
Sardines	Infantry which deploy from an APC (a tin can)
Scrapper	Semi-official term for mercenaries and irregular mech unit pilots
шпара (shpaga)	Alcohol from the de-icing systems of USSR Anvils (chiefly USSR)
Shuttle parts	A derogatory term for USSR Anvils (chiefly non-USSR)
Skywalker	Term for air support willing to get close to hostile AA or Anvils (chiefly PAA/EU)
Slag that, this	Self-censored way of venting frustration (chiefly non-EU)
Smithereen'd	Refers to a unit or pilot destroyed completely by an Anvil
Snake in the grass	Refers to units which may be hiding or camouflaged to spring an ambush
Spaceman	Mildly derogatory term for USSR Anvil pilots (chiefly non-USSR)
Spanner	A term for mech unit technicians (chiefly EU)
Speck	A term for SP mech units (chiefly EU)
Spike	Refers to the act of inflicting a negative electronic effect on a target
Splash	Aircraft destroyed; or, time to impact for artillery shells
Spook	A government intelligence operative
Squid	A derogatory term for an Anvil poorly outfitted for a Sortie
Squirrel	A fast unit which attempts to distract slower units by moving quickly around them
Stick	A mech unit (usually an Anvil) with no Arms but can still move
Stik-n-Move	Move a lot of units or materiel out of the area (chiefly American)
Strider	A mech unit which walks using two or more legs
SWAG	Scientific wild-ass guess
Swiss	Another term for Mona
Switcher	A term for mercenaries hired through the AAA Switchboard
Tape	A term for Chipsets (chiefly American)
The Az, A-Z	Refers to the Ak Zholy Laser Highway, which spacecraft use to get to and from Venus
Twist	Refers to the act of mech units turning their upper halves to spread incoming damage
Visor	Anvil Ace pilots, so-called for the distinct black visor worn by M, the 500 MARA Ace
Winchester	Out of ammunition (chiefly American)
Wipe out	Refers to sideslipping into a tree or building
Yank	Mildly derogatory term for PAA military personnel (chiefly non-PAA)
Zombie	A mech unit (usually an Anvil) designed to remain combat effective without any limbs

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