Damage Rating (Version 3)

Faced with a universe in chaos, where technology can make the difference between life and death, questions rose from SARP roleplayers.

These included, “Can my gun kill this thing?”, and “How much punishment can my shuttle take?”

The Damage Rating system, version 3, is a guideline to help figure that out. Version 2 had values expressed numerically and a kind of hit point system for all targets. Version 3, often called “SADRv3” or just “v3”, was proposed to fix the scaling problem between power armor and mecha (among other issues), and introduced an HP-less solution that would work better with a roleplayed narrative and reduce the tabletop-style number crunching.

Version 3 looks at this from the standpoint of a weapon's purpose. Players will see many weapons listing their purpose in the SARPwiki, going from *light anti-personnel* to *heavy anti-capital ship*.

The system's base assumption is that a *light anti-starship* weapon is meant to shoot down “light starships.” There's also a matter of scale: if a player shoots the same weapon at something smaller than a starship, it'll likely be far more ruinous. Against a larger starship, it'll likely do much less significant damage.

Version 3 keeps to a “per attack” perspective on weapons, but that doesn't make all weapons equal: a pistol and a submachine gun are in the same *light anti-personnel* tier; both can certainly kill an unprotected human with a well-placed bullet to the head or chest. However, one clearly fires faster and might be a much deadlier weapon.

Keep that in mind as you read this article. Be it weapons, protective means or various vehicles, each article usually has a wealth of information to offer. SADRv3 is meant to add scale and perspective to those articles, but it does not demand — that is up to the narrative between Game Masters and the players in their care.

You can also consult the Quick Reference Guide for a more condensed take.

Tiers

The table below lists four columns.

- The first is numbered to help picture scaling.
- The second is the intended nomenclature for the tier, also considered the actual purpose of the weapon (and the term you should see in other articles).
- The third includes examples of targets within that tier, for which the 'per-use' result could be potentially lethal.
- The fourth column are examples of weapons within that tier. *The items mentioned are mostly from the Star Army of Yamatai to provide a stable benchmark.*

You will also notice that there are divisions by categories. They are:

- *Personnel*,
- *Power Armor*,
- *Mecha*,
- and *Starships*.

These are for ease of reference and scale but are not exclusive. For example: an infantryman can carry an anti-mecha bazooka to take down tanks, and strike craft can equip anti-starship torpedoes to take down bigger prey. It's also fairly common for larger starships to carry a complement of weapons to deal with smaller targets.

Tier	Purpose	Defensive Example	Offensive Example
Personnel			
1	Light Anti-Personnel	Traditional Flak Vest, Riot Armor	Pistol rounds, Styrling .45 Caliber Pistol
2	Medium Anti-Personnel	Muur Armor, Ballistic Vests, Body Armor	GP-12 Pulse Rifle, Rifle rounds, Type 33 NSP (Pulse)
3	Heavy Anti-Personnel	Golem Assault Armor, Hardsuits	Grenades, LASR, SLAG Grenades, Type 33 NSP (Heavy)
Power Armor			
4	Light Anti-Armor	Daisy II, Mindy IV, Hostile	Aether Saber-Rifle (Rapid-Pulse), Atmospheric/Space Plasma Rifle
5	Medium Anti-Armor	Reaper	Aether Saber-Rifle (Beam), Type 32 Anti-Armor Turret
6	Heavy Anti-Armor	Devil, Hostile, Kirie	Aether Saber-Rifle (Saber), Offensive Mini-Missiles
Mecha			
7	Light Anti-Mecha	Aggressor, M9 TASHA, V6 Hayabusa II	50mm Gauss Bazooka, Type 31 Anti-Fighter Turret
8	Medium Anti-Mecha	Corona, V9 Nodachi	Nodachi-Type Turbo Aether Cannon
9	Heavy Anti-Mecha	Type 31 Dropship, V7 Ginga	Type 31 Anti-Starship Turret
Starship			
10	Light Anti-Starship	Hayai Gunboat, Yui-7 Scout	Chiaki-Type Mass Launcher (Solid Round)
11	Medium Anti-Starship	Chiaki Escort, Plumeria Gunship	Chiaki-Type Mass Launcher (Positron Shot)
12	Heavy Anti-Starship	Fuji Gunship, Urufu Light Cruiser	Chiaki-Type Aether Array, Sharie-Type Aether Turret, Ke-Z1 Torpedoes
13	Light Anti-Capital Ship	Heitan Carrier, Super Eikan Heavy Cruiser	Plumeria-Type Aether Array, Eikan-Type Positron Cannon
14	Medium Anti-Capital Ship	Sharie Battleship, Yamato Flagship	Eikan-Type Aether Array, Izanagai-Type Aether Turret
15	Heavy Anti-Capital Ship	Izanagi Dreadnought, Zodiac Star Fortress	Sharie-Type Aether Array, Izanagi-Type Aether Array

Tier 0

Unstated, Tier 0 encompasses the unprotected human and means of harm such as bare fists, clubs, and knives. As this scope is relatable to us in real life, it's left up to common sense between roleplayers and Game Masters.

Handling Damage

This section reviews the vertical relationships of the tiers listed above.

Attacks

As alluded to before, using a weapon in the same tier as its target means this weapon is capable of putting it out of combat in a single well-placed attack. It is *potentially lethal*.

Version 3 breaks down the damage a weapon can do along a stepped range, relative to the tiers of the weapon versus the target. The range goes from four steps below and four steps above, with *potentially lethal* considered “zero.”

- The *below steps* are reductions in a weapon's damage because the target is bigger, heavier or otherwise better protected. Those steps are negligible, light, moderate and heavy.
- The *above steps* are increases in a weapon's damage because the target is smaller, lighter or otherwise less protected. Those steps are quite lethal, highly destructive, assuredly lethal and total annihilation.

When put visually, it's going to look like this table:

Weapon vs Target	Descriptor
4 Below	Negligible
3 Below	Light Damage
2 Below	Moderate Damage
1 Below	Heavy Damage
Equal	Potentially Lethal
1 Above	Quite Lethal
2 Above	Highly Destructive
3 Above	Assuredly Lethal
4 Above	Total Annihilation

What you need to take from this is that you cause some damage to harder targets than your weapon was intended to take down and more damage to targets softer than that. If the gap becomes too wide in disfavor of the weapon, it won't do much of anything; too wide, and the weapon will cause overkill.

Nothing in this article needs to be learned by heart. As long as a reader or Game Master grasps

the general concept and can figure out “my Nekovalkyrja Service Pistol will only do light damage to a Mindy armor,” the player's gleaned what most readers need to from the Version 3 system.

Based on the purpose stated in the weapon article, a player or Game Master is armed with the knowledge of what to expect from your tools. From there, the Game Master should be able to determine the result within the story narrative.

At the end of this article are outcomes given as inspiration as to how this might be applied, along with several tips. You can click here to quickly get down to it or read on to learn more about defenses.

Defenses

There are two universal means of defense against direct harm in SARP: physical armor and energy barriers.

Barriers

Barriers (also called “barrier shielding”, “energy shields” and the like) are a form of defensive energy screen that can absorb damage before it makes contact with what stands under its protection.

The potency of a barrier always is on the same tier as the unit fielding it.[1)] Destroyers will have destroyer-tier barriers, light cruisers will have cruiser-tiered barriers, and so forth.

However, not all units have barriers. An example:

> The M2 Mindy power armor acquired “bubble barrier” technology through a modular backpack generator in YE 29. Even when the Mindy II was introduced, the “bubble barrier” module was optional; the larger M6 Daisy fielded a new “conformal barrier” system. It wasn't until YE 36 that barrier shielding technology was refined enough that the Mindy II could have an inbuilt “conformal barrier” like the M6 Daisy. In YE 38, the Mindy IV came standard with its own “conformal barrier,” its backpack slot instead dedicated to an inbuilt teleportation unit.

Damaging and Depleting Barriers

Barriers don't discriminate against where they are hit. An attack will be intercepted by a unit's barrier regardless of where that target was attacked (a graze on a limb, a shot to the back, a slash along the engines, etc.)

That unit's barrier then will be depleted by the damage it has to stop.

Science fiction commonly refers to the status of energy screens in percentile values. Scientifically, there's no actual way for an energy field to be setback by incoming weapon fire. You cannot hurt energy, but you can deplete stored energy through use.

So, when a unit's barrier is “up”, it's actually on “hot-standby”: you have a minimally powered field that gives your unit the base protections from hazards and energy reserves ready to bolster the barrier with

just enough energy to intercept attacks.

In SARP, units commonly have high-powered computers (some quantum-level) and predictive sensors. When there's an incoming attack, just enough energy gets flushed from reserve power to the barrier to cancel out the attack. A unit's pilot then receives feedback such as, “Barrier at 75%!”, or “Shields at half strength!”

Below is the attack table, now with a third column that shows how much an attack could deplete a barrier.

Weapon vs Target	Damage Directly on Target	Damage on Fully-Charged Barrier
4 Below	Negligible	Barrier undiminished.
3 Below	Light Damage	Around 7% damage to barrier.
2 Below	Moderate Damage	Around 12% damage to barrier.
1 Below	Heavy Damage	Around 25% damage to barrier.
Equal	Potentially Lethal	Around 50% damage to barrier.
1 Above	Quite Lethal	Barrier depleted (100% damage).
2 Above	Highly Destructive	Barrier depleted (150% damage), heavy damage to target.
3 Above	Assuredly Lethal	Barrier depleted (200% damage), potentially lethal damage to target.
4 Above	Total Annihilation	Barrier depleted (250% damage), quite lethal damage to target.

The notations that go along with excess damage are discussed further in the *Replenishing a Barrier* section below.

Barrier Facings

Barrier technology comes in a few shapes in terms of deployment and management. The common ones include:

Type	Description
Bubble	This kind of barrier forms an all-around protective bubble for the unit. It's a rudimentary barrier deployment most commonly seen on power armor, mecha and larger civilian craft. It has only one universal facing. Near-misses can deplete the bubble even though they might not have actually hit the target directly.
Conformal	Slightly more advanced, this barrier lends “skin-tight” protection to its recipient. Near-misses are much less likely to needlessly deplete the barrier. It is usually seen on power armor, mecha, and small strike craft.
Two-Faced	Two-faced barriers have emitters that handle the forward and aft hemispheres of the barrier bubble separately — each facing has its own 100% energy reserve. Host platforms smaller than mecha may not equip two-faced barriers.[2)]

Type	Description
Six-Faced	One of the most complex barrier setups available, this layout divides barrier facings into areas: fore, aft, port, starboard, dorsal and ventral. Each facing has its own 100% energy reserve too. Typically, these will only be seen on state-of-the-art military starships and capital ships. Six-faced units sometimes will simplify how their facings are managed, with “fore” and “aft” commonly used.

Though “facings” is used here, players and Game Masters use many other names, including angles, directions, regions, sides, sectors, zones, and so on.

Managing Barrier Facings

With multi-faced barrier units, it is possible to transfer power from one facing to another, either to replenish a facing at the expense of others, or reinforce a barrier's facing to absorb damage.

A starfighter with fore shields as 50% and aft shields at 100% could transfer 50% from the aft shields to bring the fore shields back to 100%. The same starfighter could instead decide to balance its shields and share reserves evenly: getting 75% on both facings.	
Expecting damage on the fore barrier, a captain orders power to be rerouted from aft facing (at 100%) to fore (also 100%). The aft barrier is reduced to 50%, but the fore barrier is boosted to 150%.	Later, that same ship is fleeing a squadron of enemy vessels and the captain orders power to be rerouted from all facings to the aft. Fifty percent is taken from five facings (250% total) and shunted to the aft facing, upping it to 350%. While the ship's aft now extremely well protected, the rear emitter is not made to handle such an energy load and risks quickly overloading.

In SARP, the safe limit to boost a barrier facing is 200%. Going beyond invites malfunctions, equipment failures, and unhappy engineers.

Replenishing a Barrier

Eventually, damage depletes a barrier's reserves. A platform with multiple barrier facings can juggle its reserves around, but there remains a finite amount of total energy.

As long as a barrier is not fired upon, it is capable of recharging its reserves.

In fact, taking *negligible* damage can mean “taking so little damage that the barrier regenerates from it right away”. With proper power — that usually happens through the actions of roleplayers such as tapping in auxiliary power, choosing not to fire weapons or having a power armor hide behind cover and wait — reserves for any facings available can be safely recovered at a rate of 50% every 10 to 15 seconds (3% to 5% per second, depending on rate of activity).

Depleting a barrier by excess causes an overload which renders that barrier facing inoperable for 15 seconds while the barrier emitter is reset (think of it as resetting a tripped fusebox). Certain systems, such as capacitor reserves on the M2 Mindy and M6 Daisy power armor, are designed to 'hot restart' a power armor's barrier.

Armor

Essentially, armor is what gets between something that's vulnerable and what means it harm. Armor that does its job is will mitigate incoming damage, from completely fending it off to at least saving the user from what would have been a killing blow.

An armor's resilience is defined by the tier its unit is part of.[3)]

For ease of reference, anything within the same tier is documented as performing about the same. We won't go in the minutiae of what protects better between 10 millimeters of Yama-Dura plating and 15 millimeters of Durandium plating, though from reading article descriptions a Game Master is certainly free to come to his or her own conclusions.

Supplemental Armor

Power armor and mecha sometimes carry physical shields.[4)] For instance, the M6 Daisy power armor carries on its left forearm a Zesuaium shield.

The performance of supplemental armor is generally played by the ear by Game Masters. They are heavily reliant on the Game Master's portrayal of a user's skill of interposing the shield between themselves and what means to harm them.

Given that shields typically are made of heavier plating than what the user is wearing, its resilience can be treated as going up to one step above the tier of the unit holding it. For example, the M6 Daisy's Zesuaium shield can cope with attacks as a *medium power armor* (Tier 5) target would. Damage to the shield is treated separately from the power armor or mecha holding it: having a shield does not upgrade a power armor or mecha's defense tier; instead, it is treated as a different location to damage that is tougher than the rest.

There comes a point when a shield has sustained so much abuse that it looks more like an abstract metal representation of Swiss cheese rather than anything capable of granting protection. **How long shields can stand up to damage and deterioration is up to the Game Master.**

Materials

Materials used in physical armor influence how they perform, but SADRv3 accounts more for their special qualities rather than their resilience. As long as they are within the same tier, Durandium armor and Zesuaium armor handle aether weaponry the same way (as they both don't have any special resistance against that form of damage).

Even though Durandium is supposedly lighter and less dense, someone designing a light power armor and wanting to sheathe it in Durandium plating will put the necessary amount of armor on it to make it fit within its tier.

Here's a list of commonly seen materials in SARP, along with a short blurb of how they stand out.

Armor Material	Properties
Xiulurium	Expensive, counts as *Unarmored* (see below), grants stealth when energized.
Zanarium	Grants noncombat stealth when energized if barrier and weapons are offline.
Durandium	Lightweight and inexpensive.
Durandium-T	Transparent Durandium, counts as unarmored against beam-based weapons.
Yama-Dura	Memory metal with minor noncombat regenerative properties.
Nerimium	Heavy, density absorbs kinetic and heat impacts well, inexpensive.
Yamataium	Heavy, expensive, memory metal with significant noncombat regenerative properties.
Zesuaium	Heavy, expensive, cannot be repaired, resists electricity, kinetics, and heat.
Zesuaium-T	Transparent Zesuaium, counts as unarmored against beam-based weapons.
Zesuaium-X	Coated in Xiulurium, confers same properties as long as surface remains intact.

A material's properties give players options as to what they want to do.

Durandium is an extremely widespread material and makes for cheap, reliable armor. The Mindy relied greatly on Durandium because it was lightweight. Since the Mindy's original teleportation module could transfer only a limited amount of weight, the lighter armor permitted it to bring along a bigger weapon payload.

However, a Mindy plated in Durandium could take some serious damage from a Hostile's vibrosaw knife in the chest. If the Mindy's breastplate was Zesuaium, the vibrosaw knife wouldn't be able to dent it, as Zesuaium has the property of not being able to be reshaped through physical force.

Other aspects of physics remove that potential. If a gauss bazooka is fired directly in the chest of that same Zesuaium-plated Mindy, all the kinetic impact will be transferred directly over to the inner titanium framework. The Zesuaium chestplate will not have bent, but it may still crush its pilot's ribcage from the impact.

Being "Unarmored"

Most of what is in the tier list as target examples are items that are prepared or designed to endure damage coming *from weaponry*.[5)]

But many other items — especially from the civilian market — that may look like they could fit in those tiers are not actually armored. The guy in his leather jacket (exemplified in Tier 0), a car, an airplane, a communication satellite orbiting a planet, a starliner making passenger runs across Central Yamatai.

These are *unarmored*. They take damage one step worse than usual for their tier.

Setting Submissions

This section is made in the interest of making new submissions adhere to SADRv3.

New Submissions

Here we'll discuss prickly stuff that can rise up during the process for making and seeing new submissions approved.

What Size Do I Fit In?

Here's a variant of the Tier table with the approximate sizing of what would fit in each category.

Note: The sizes listed in the following table are averages, not hard values. Deviation from them **within reason** *is acceptable.*[6)]

Tier	Type	Example	Note
Personnel			
1	Light Personnel	Traditional Flak Vest, Riot Armor	Human-sized; torso or full-body padding.
2	Medium Personnel	Muur Armor, Ballistic Vests, Body Armor	Human-sized; vest or full-body padding.
3	Heavy Personnel	Golem Assault Armor, Hardsuits	Human-sized, full-body; not as thick as power armor.
Power Armor			
4	Light Armor	Daisy II, Mindy IV, Hostile	Can walk in through a doorway; around ~1.78 meters tall.[7)]
5	Medium Armor	Reaper	Will hit head on top of doorway if walking in; around ~2.08 meters tall.[8)]
6	Heavy Armor	Devil, Hostile, Kirie	Can't walk in upright through a doorway; around ~2.30 meters tall.[9)]
Mecha			
7	Light Mecha	Aggressor, M9 TASHA, V6 Hayabusa II	Fits in half a tennis court; around 5~11 meters long.[10)]
8	Medium Mecha	Corona, V9 Nodachi	Fits in a full tennis court; around 9~21 meters long.[11)]
9	Heavy Mecha	Type 31 Dropship, V7 Ginga	Fits in an Olympic swimming pool; around 21+ meters long.[12)]
Starship			
10	Light Starship	Hayai Gunboat, Yui-7 Scout	50~125 meters long; fits (mostly) in an American football field.[13)]
11	Medium Starship	Chiaki Escort, Plumeria Gunship	100~275 meters long; as big as or bigger than the *Ticonderoga*.[14)]
12	Heavy Starship	Fuji Gunship, Urufu Light Cruiser	250~625 meters long; as big as or bigger than the *Enterprise*.[15)]
13	Light Capital Ship	Heitan Carrier, Super Eikan Heavy Cruiser	500~1,250 meters long; can be bigger than the Burj Khalifa.[16)]

Tier	Type	Example	Note
Personnel			
14	Medium Capital Ship	Sharie Battleship, Yamato Flagship	1,000~2,500 meters long; ships this size could bridge a river.[17)]
15	Heavy Anti-Capital Ship	Izanagi Dreadnought, Zodiac Star Fortress	2,500+ meters long; can be over twice the height of Angel Falls.[18)]

How Fast Can I Go?

Anything bipedal and human-sized usually can't go much faster than 30 to 45 kilometers per hour (humans probably go lower, Nekovalkyrja cap higher - articulations and muscle can only go so far). Larger mecha, thanks to longer strides and man-machine interfaces, can likely hit 50 to 95 kilometers per hour. Most inertial control systems go up to 100 kilometers per hour. The airspeed of anything not a fightercraft tends to cap at Mach 1.7; actual aerodynes reach up to Mach 5.

SARP's major factions like Yamatai and Nepleslia have a listing of speed standards which should be the prime reference for what your sublight and faster-than-light speeds ought to look like for your fighters, shuttles, and starships.

- Star Army of Yamatai Starship Speeds
- Star Navy of Nepleslia Starship Speeds

SADRv2 had this table defining how armor weight influenced the top sublight speed that could be reached. See below for its SADRv3 adaptation:

Armor Type	Examples	Speed Bonus	Maximum Speed
Unarmored	Xiulurium	+.075c	0.450c
Light	Durandium	+.050c	0.425c
Medium	Yama-Dura, Zanarium	+.025c	0.400c
Heavy	Nerimium, Yamataium, Zesuaium	None	0.375c

More Powerful Armor and Barriers

Aside from how you describe how your units armor plating, the materials used, and what its general composition is like, your units armor tier is what the unit is and no higher or lower.

For the unit's barriers, it's the same. You pick the type of technology used to define facings, but then longevity has more to do with power systems and the actions of roleplayers handling the unit.

Basically, don't try to make your baby a special snowflake just with numbers and labels to overshadow other articles and look powerful. Strive for quality and good descriptions; submissions that become larger-than-life for readers are usually seen in a better light too, whereas NTSE moderators try to be on the crackdown for anything that might be contentiously overpowered.

Multiple Barrier Systems

It's possible that ships have multiple systems running their barrier. This typically doesn't make the barrier stronger or more capable of handling more damage, but it can change how it's meant to work.

For example, say I have a ship with 4 gravimetric drives. Each drive is able to raise a barrier to full strength, but usually, they share the load of keeping a barrier online. That's an expression of *loadsharing* and *redundancy* - without one of these gravimetric drives, you wouldn't be able to keep a barrier active so in this case, you have 3 spares.

Another example is the Combined Field System used by the Star Army of Yamatai. The Combined Field is exactly that, fields combined to fulfill different functions: one projects a distortion field that prematurely detonates warheads and bends harmful beams and radiation away, while another offers protection to deflect more physical projectiles from impacting the ship. If the system supporting the distortion field took damage, one protective aspect of the barrier may be lost.

Article Templates

Elements of SADRv3 get mentioned in a few places in an article. Any SADRv3 notation can also be linked back to this article for ease of reference.

Units

The following is for “unit” articles such as aerospace craft, ground vehicles, mecha, power armor, and starships.

Statistical Data / General

Insert the following under “Type”:

```
**DRv3 Tier:** (target type, i.e.: Medium Starship)
```

Armored Hull

Should include the following line before the description of the armor's composition:

```
The (unitname)'s armor has the defensive profile of a (target type, i.e.:
Light Mecha).
```

Barrier Systems

Also previously known as “Shield Systems” under previous templates; should include the following line before the description of the Barrier Shielding systems:

```
The (unitname)'s has a (barrier type, i.e.: conformal barrier) rated for
(target type plural, i.e.: Light Mechas).
```

Weapons Systems

Weapon systems need to be listed with the following nomenclature:

```
  * [[(Wiki link to weapon)|(weapon purpose) (weapon name)]]

Example:
  * [[stararmy:weapons:ke-s3-w3020_main_weapon_array|Light Anti-Capital Main
Weapon Array]]
```

Weapons

The following is for weapon articles.

Purpose

In weapon articles, the first primary entry for “Purpose:” needs to provide information matching the “Purpose” entry of the Tier table.

```
**Purpose:** [[(wiki link back to this article's Tier heading)|(weapon's
purpose, i.e.: Light Anti-Mecha)]]
```

Translating from SADRv2

This section covers how to convert from SADRv2 to SADRv3.

Quick and Dirty Reading

If you come across an article talking about SP, PDR, ADR, SDR, or some combination thereof, you're looking at something that matches the way the Damage Rating system worked before, under SADRv2.

- SPs and grade (personnel and mecha) can help you figure out the broad tier of the unit.

    - SP 1 is Tier 0, Unarmored.
    - SP 2 is Tier 1, Light Personnel.
    - SP 3-4 is Tier 2, Medium Personnel.
    - SP 5 is Tier 3, Heavy Personnel.
    - SP 5~10 is Tier 4, Light Armor.
    - SP 10~15 covers Tiers 5 and 6, Medium Armor and Heavy Armor.
    - SP 15~25 will cover most of what is in the Mecha category. Pay more attention to what the type of unit is.

- SPs for starships are in a different grade.
    - SP 10~15 is Tier 10, Light Starship.
    - SP 20~25 is Tier 11, Medium Starship.
    - SP 30~35 is Tier 12, Heavy Starship - light cruisers and the like.
    - SP 40~45 is Tier 13, Light Capital Ship.
    - SP 50 is Tier 14 or Tier 15, Medium Capital Ship or Heavy Capital Ship.

- Personnel-grade weapons with PDR translate into:
    - PDR 1~2 is Tier 1, Light Anti-Personnel.
    - PDR 3~4 is Tier 2, Medium Anti-Personnel.
    - PDR 5 is Tier 3, Heavy Anti-Personnel.

- Armor-grade weapons with ADR translate into:
    - ADR 1 is Tier 3, Heavy Anti-Personnel.
    - ADR 2 is Tier 4, Light Anti-Armor.
    - ADR 3 is Tier 5 or Tier 6, Medium Anti-Armor or Heavy Anti-Armor.
    - ADR 4 is Tier 7 or Tier 8, Light Anti-Mecha or Medium Anti-Mecha.
    - ADR 5 is Tier 8 or Tier 9, Medium Anti-Mecha or Heavy Anti-Mecha.

- Ship-grade weapons with SDR translate into:
    - SDR 1 is Tier 9, Heavy Anti-Mecha.
    - SDR 2 is Tier 10, Light Anti-Starship.
    - SDR 3 is Tier 11, Medium Anti-Starship.
    - SDR 4 is Tier 12, Heavy Anti-Starship.
    - SDR 5 covers Tiers 13 through 15, Light Anti-Capital Ship through Heavy Anti-Capital Ship.

Damage Per Interval

SADRv2 had values like PDR/ADR/SDR calculate the damage potential a weapon could output under 10 seconds, so it tried to abstractly take rate-of-fire into account.

Weapon lethality under SADRv3 is counted “per-use”, or “per-shot”. Unless we deal with very slow-firing weapons, the rough conversion offered above is indeed 'rough'.

Converting from SADRv2

The “rough and dirty” heading above can help, but the spirit of converting weapons into SADRv3 was first meant to encourage it looking dramatic, *cinematic*.

With this said, if a weapon was made to cause damage to a *light armor* (Tier 4) on multiple hits, it should not be considered a *light anti-armor* (Tier 4) weapon. While the weapon can be described as being used to assault such targets, when it comes to the tier the author should, depending on the intended effect of the weapon, consider whether the weapon will prove lethal on a single hit for a *heavy personnel* (Tier 3) or *medium personnel* (Tier 2) target and label it as such.

To give an example, the Light Armor Service Rifle was designed for use near friendly assets where the potential collateral damage of more powerful weapons was not desired. As such, while it has frequently been employed in an anti-armor role the weapon can be better thought of as a *heavy anti-personnel* (Tier 3) weapon, as a single shot to a vital area - such as the head or torso - is likely to incapacitate such a target (or penetrate Mishhuvurthyar carapace), but would take longer to chew through power armor.

Examples of Use

Below are some potential outcomes for different targets, along with a few tips. These aren't absolutes, as in the chaos of combat there can be plenty of mitigating factors. For instance, even though a Nekovalkyrja Service Pistol set on 'heavy' can cause a grenade-like blast, something *very lethal* to a soldier only in uniform, the Game Master would entirely be in the right to judge that if the person dove down in time, perhaps they'd emerge only singed/dazed from the experience.

vs. Lightly-Protected Personnel

Practically everything can give a bad day to a *light personnel* (Tier 1) target. If someone packing serious heat is motivated in taking down, say, a policeman in riot armor, the following might happen depending on how badly the poor policeman is outgunned:

Weapon vs. Target	Descriptor	Examples
Equal	Potentially Lethal	Armor penetration, severe burns, possibly fatal wounds (vital organs, internal bleeding).
1 Above	Quite Lethal	Reliable through-and-through penetration, gaping wounds (and exsanguination).
2 Above	Very Lethal	Severed limbs, eviscerated torsos, massive traumatic injuries.
3 Above	Assuredly Lethal	Explosive separation of body parts/tissues via projectile trauma.
4 Above	Total Annihilation	Incineration, being scattered into meaty chunks and fine pink mist.

Since most modern handguns are qualified as *light anti-personnel* (Tier 1) weapons, they are made to defeat protection like the above policeman's riot armor. That is why policemen usually have ballistic vests in high-risk situations - that kind of protection (Tier 2) would prove lifesaving and would result in heavy damage (cracked ribs/severe bruising) instead.

More on that in the next section.

vs. Heavily-Protected Personnel

This covers protection conferred by padding and plating directly over the human body, such as the *heavy personnel* (Tier 3) full-body hardsuits of Nepleslian Senator Laj Vinross Yu's elite cadre of femme fatale, the Uniques.

Weapon vs. Target	Descriptor	Examples
2 Below	Moderate Damage	Notable damage to armor surface, bruising.
1 Below	Heavy Damage	Partial armor penetration, minor burns, light wounds.
Equal	Potentially Lethal	Armor penetration, severe burns, possibly fatal wounds (vital organs, internal bleeding).
1 Above	Quite Lethal	Reliable through-and-through penetration, gaping wounds (and exsanguination).
2 Above	Very Lethal	Severed limbs, eviscerated torsos, massive traumatic injuries.
3 Above	Assuredly Lethal	Explosive separation of body parts/tissues via projectile trauma.
4 Above	Total Annihilation	Incineration, being scattered into meaty chunks and fine pink mist.

Weapons striking below the tier of the target's protection aren't ineffective: the armor is just doing its job of protecting the wearer's life against harm. Also of note is that damage implies some level of deterioration on the armor. Even though a body-armored Unique could survive being hosed all over by a *light anti-infantry* (Tier 1) submachine gun, her armor would deteriorate and become covered in pockmarks. Continued attacks could keep chewing away at the protection until it becomes compromised.

Bear in mind that while a Unique being shot a few times in her hardsuit's right shoulder would make that area more vulnerable, her chestplate and left shoulder would still be pristine and be quite capable of coping with similar abuse.

That kind of deterioration is for the Game Master to describe and take into account. Also bear in mind that even though the damage caused might not be lethal, injuries come with their own hazards such as bleeding.

vs. Lightweight Power Armor

Power Armor in the tier table is the first point where we can fully go four steps above and four steps below in lethality.

Unlike body armor which is set directly over flesh, power armor operates on a more robust foundation: a pressure-proof lining to environmentally protect the wearer, along with an endoskeleton that serves as an armature for motor actuators or artificial muscle-fibers, then a flexible outer covering, and plating over the less articulated regions.

The *Light Armor* (Tier 4) Ke-M2-4a "Mindy" Power Armor is one such unit.

Weapon vs. Target	Descriptor	Examples
4 Below	Negligible	Scratches, ruined paint job.
3 Below	Light Damage	Slight deterioration of armor (nicked, dented, carbonized surface).
2 Below	Moderate Damage	Notable deterioration of armor (melted off, gouged, pockmarked), possible bruising.
1 Below	Heavy Damage	Partial armor penetration, subsystem damage, minor burns, light wounds (major bruising, cracked bones).
Equal	Potentially Lethal	Armor penetration, possibly fatal injury for wearer (severe wounds/burns, internal bleeding, broken bones).
1 Above	Quite Lethal	Armor deeply penetrated, severe injuries for wearer
2 Above	Very Lethal	Through-and-through penetration; limbs severed or ruined; massive injuries for wearer.
3 Above	Assuredly Lethal	Significant portion of power armor and wearer blown off or destroyed
4 Above	Total Annihilation	Obliteration likely, even from a glancing hit

Since a power armor is motorized and possesses components to help it operate far beyond the norms of human prowess, sustaining damage can hinder or take out these components (onboard computer, power supply, propulsion system, etc.) and reduce the unit's performance.

State-of-the-art power armor commonly includes life support functions that can save its wearer from injury. A wearer may be able to ride out injuries thanks to injected painkillers, bleeding up to having a limb severed can be sealed, someone experiencing a cardiac arrest can be reanimated, and so on.

vs. Medium-Sized Starship

Once the mecha category is reached, the units are no longer conformal to a humanoid's body. At this point, users can go from shuttle pilots to tank drivers and beyond. Their vehicle may sustain damage, but the injury or death of the crew is collateral damage more than anything else - unless a section like the cockpit is targeted.

It's much the same for starships, just on a greater scale. Let's cover how a *medium starship* (Tier 11) vessel like the Ke-S3-2e Plumeria-class Medium Gunship might cope against harm.

Weapon vs Target	Descriptor	Examples
4 Below	Negligible	Dents, scorch marks on the armor's surface, ruined paint job.
3 Below	Light Damage	Gouges or noticeable pockmarks; heat warps the armor as it melts.
2 Below	Moderate Damage	Armor might crack, fissure, or threaten to buckle; heat causes indents from reaching armor's boiling point.
1 Below	Heavy Damage	Armor is twisted, torn, or cratered nearly through; heat sufficient to cause deeper indentations.
Equal	Potentially Lethal	Hull breach, possible loss of function on a vital system may cripple the ship.
1 Above	Quite Lethal	Compartment-wide damage, wide sections open to space.
2 Above	Very Lethal	Loss of major structural components such as main gun and pylons.

Weapon vs Target	Descriptor	Examples
3 Above	Assuredly Lethal	If hit center-of-mass, destruction of the entire ship.
4 Above	Total Annihilation	Ship bound to disintegrate even if caught at the edge of the attack.

Like power armor, larger vehicles deteriorate from successive damage to the same location.

Potentially lethal damage is essentially attacks that get past the hull. Just like how a knife can cause damage to different organs in the human body, some of them a human cannot go without, it's the same for vehicles. Such an attack striking the Plumeria's lounge or shuttle bay would impair some functions of the ship but not slow it down in combat; strikes to its weapons, engines, or barrier systems, however, would prove far more telling. Taking out the aether generator in engineering would be crippling, as it would force the ship to run on backup power, while a hit on the bridge could be ruinous - and striking directly at an armory or anti-matter storage could result in catastrophic consequences.

Even 'flesh wounds' on a vehicle can come with their share of trouble. On a *Plumeria*, we could be looking at power surges, severed electrical connections that need to be bypassed, coolant leaks, venting atmosphere, and so on.

Connecting with an *Assuredly Lethal* attack, or pouring a lot of successive firepower into a starship's center-of-mass can result in dramatic explosions, but it's not uncommon for a vehicle to be made inoperable without exploding. In the case of airplanes, striking at engines may not make them explode, but it will rob the airplane of its ability to remain airborne. For starships, sufficient damage may make them unable to function or support life before they'll actually blow up.

Capital vessels and starbases are in the upper range of the tiers, the point where weapons in this setting become less likely to cause 'overkill' on them. They account for the mightiest machines in our setting.

OOC Notes

fred created this article on 2014/03/17 17:21; wes approved it on 2017/01/03 18:55. updated it on 2018/08/19 09:10 after receiving approval from wes on 2018/08/19 08:49.

1)
This is mostly to nip in the bud any potential arms races - we want to encourage better design and quality writing in submissions instead of one-upmanship.
2)
Source
3)
Like with barriers, this is to prevent any potential arms races.
4)
“Shields” is the desired nomenclature for additional armor - tangible shields - meant to intercept attacks, as opposed to energy shields, which are barriers.
5)
This goes somewhat beyond crash test dummies.
6)
What is considered “acceptable” is ultimately at the discretion of the individual reviewing the submission.
7)

Roughly equivalent to 70 inches; a “doorway” refers to an opening that measures 80 inches (~2 meters) tall.
8)

Roughly equivalent to 82 inches; a “doorway” refers to an opening that measures 80 inches (~2 meters) tall.
9)

Roughly equivalent to 91 inches; a “doorway” refers to an opening that measures 80 inches (~2 meters) tall.
10)

Roughly equivalent to 16~36 feet long; “long” refers to the unit's largest dimension (length, width, or height).
11)

Roughly equivalent to 30~69 feet long; “long” refers to the unit's largest dimension (length, width, or height).
12)

Roughly equivalent to 69+ feet long; “long” refers to the unit's largest dimension (length, width, or height).
13)

Roughly equivalent to 164~401 feet long; “long” refers to the unit's largest dimension (length, width, or height).
14)

Roughly equivalent to 328~902 feet long; “long” refers to the unit's largest dimension (length, width, or height).
15)

Roughly equivalent to 820~2,052 feet long; “long” refers to the unit's largest dimension (length, width, or height).
16)

Roughly equivalent to 1,640~4,101 feet long; “long” refers to the unit's largest dimension (length, width, or height).
17)

Roughly equivalent to 3,281~8,202 feet long; “long” refers to the unit's largest dimension (length, width, or height).
18)

Roughly equivalent to 8,202+ feet long; “long” refers to the unit's largest dimension (length, width, or height).

From:
https://wiki.stararmy.com/ - **STAR ARMY**

Permanent link:
https://wiki.stararmy.com/doku.php?id=guide:damage_rating_v3&rev=1561122911

Last update: **2023/12/20 15:49**