

PYRAMID[®]

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ALTERNATE GURPS[®]

ALTERNATE SPACESHIPS

by David L. Pulver

A NEW TAKE ON GRAPPLING

by Ken Clary

EXTREME DAMAGE

by David L. Pulver

**TEN TWEAKS TO
CUSTOMIZE COMBAT**

by T Bone

**WHEN WE WERE
VERY SMALL**

by Mark Gellis

ARMOR REVISITED

by Douglas H. Cole

A DECK OF DICE

by Steven Marsh

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Article Colors

Each article is color-coded to help you find your favorite sections.

Pale Blue: In This Issue

Brown: In Every Issue (letters, humor, editorial, etc.)

Dark Blue: **GURPS** Features

Purple: Systemless Features

Green: Distinguished Columnists

COVER ART

Jeff Koke

INTERIOR ART

Greg Hyland

*Never interrupt someone doing what
you said couldn't be done.*

– Amelia Earhart

IN THIS ISSUE

Watch out: The cutting edge of **GURPS** is *sharp*! This month is dedicated to novel notions and major manipulations for the greatest generic universal roleplaying system of all time!

Docking first is *Alternate Spaceships*, a look at significant modifications to the **GURPS Spaceships** system – written by that series' mastermind, David L. Pulver. Harness the power of core tweaks, new systems, variant design features, and more.

A New Take on Grappling offers a radical revision that seeks to unify and expand the grappling system from the **Basic Set** and **GURPS Martial Arts**. For those times when only hands-on heroics will suffice, give these rules a try!

Watch your step! *When We Were Very Small* provides a little tweak to the core rules that permit better gradation and variation on the smaller side of the **GURPS** scale. It includes advice for playing animals and others of undersized stature, plus size and strength guidelines for over 100 tiny troublemakers.

Who can forget David Pulver's monthly *Eidetic Memory* offering? Not us! This month he looks at *Extreme Damage*, an examination of the higher end of the scale. If you wanted to see how one of the principle architects of the **GURPS Fourth Edition** can shake up fundamental assumptions of size, HP, explosions, and more, look no further!

Longtime **GURPS** tinkerer T Bone offers *Ten Tweaks to Customize Combat*, a bunch of bite-sized mods that can bring a new spark to combat.

Who needs six-siders? *A Deck of Dice* offers a radical revision of a beloved basic concept – and what possibilities it opens. Deal with it!

For those who are looking for more variability and options on the defensive side, *Armor Revisited* describes a number of new possibilities. Stay safe!

Pyramid Editor Steven Marsh uses this month's *Random Thought Table* to suggest methods for introducing new rules and tweaks without wrecking the world, while *Odds and Ends* features the usual goodies we couldn't fit elsewhere – including a groovy **GURPS** installment of *Murphy's Rules*.

Don't settle for great. With this month's **GURPS**, you'll unleash new ideas and possibilities to take your game further!

Editor-in-Chief ■ STEVE JACKSON
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Art Director ■ SAMUEL MITSCHKE
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Production Artist ■ NIKOLA VRTIS
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Page Design ■ PHIL REED and
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FROM THE EDITOR

THAT WAS THE TWEAK THAT WAS

Not too long ago, there was a meme floating around that informed the world, “You’re playing *Monopoly* wrong!” (The premise was that many – perhaps most – people fail to auction properties when they aren’t purchased by someone landing on them. I was pleased to note that I *had* been playing correctly, on those rare occasions when I played *Monopoly*.)

The undercurrent of the anecdote was that, by not playing with all the rules, you’re not playing the game right. For a game like *Monopoly*, that makes sense.

However, that’s *impossible* with a game like *GURPS*. To me, the beauty of *GURPS* has always been in its modular nature. Many of those pieces are inherently contradictory; using a batch of rules to make combat more *and* less deadly at the same time would be . . . odd. However, this makes it conceivable to tailor *GURPS* to be exactly the kind of game you want: a cinematic romp, a realistic simulation, a quick-play

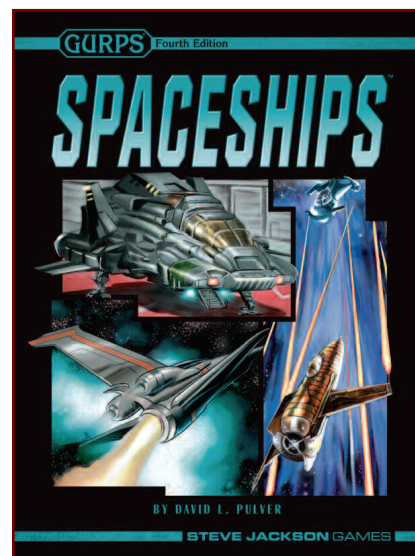
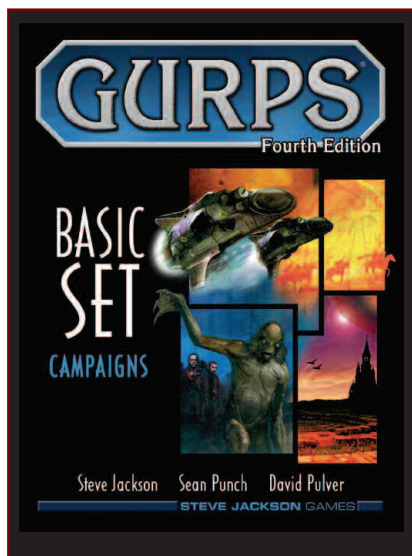
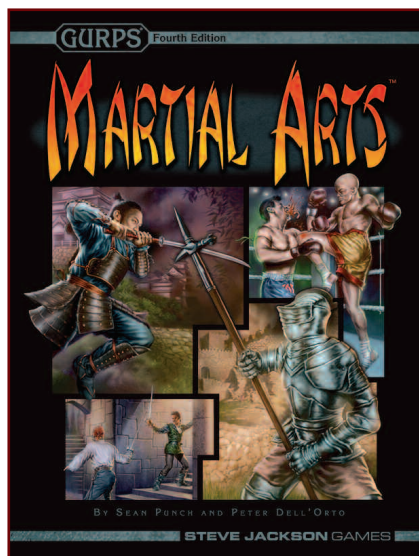
system, etc. The fact that *Tactical Shooting* exists in the same ecosphere as *Ultra-Lite* makes me giggly.

This issue, then, is dedicated to the inveterate tinkerers. We look at some of the core assumptions of the game (and some subsystems), and we see how we can shake them up. Some of the tweaks are minor (some trivially so), while others are complete overhauls.

Even if you use none of these ideas as-is, hopefully they inspire you to pop the hood, roll up your sleeves, get your hands dirty, and see how you can make *GURPS* what you want it to be. That’s what it’s for!

WRITE HERE, WRITE NOW

Speaking of getting your hands dirty, why not dip the quill in the virtual ink and send us a note? We’re open for public discussion online at forums.sjgames.com, and the tippy-top secret ultra-private mailbox to reach us virtually is at pyramid@sjgames.com. We love to hear from you!



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ALTERNATE SPACESHIPS

BY DAVID L. PULVER

GURPS Spaceships and its supplements (especially *GURPS Spaceships 7: Divergent and Paranormal Tech*) provide a comprehensive system for spacecraft design . . . but it can be used for a lot more than that if some of its core

assumptions are overturned. This article offers several variant rules that let you build ground vehicles, aircraft, watercraft, and even buildings with the system, as well as new ways to create and modify spacecraft.

DESIGN RULES

If these variant ways to design spacecraft and other vehicles are used, they may change the statistics of any existing craft built with the system.

ARMOR AND VOLUME

GURPS Spaceships is a mass-based system. For the most part, it makes the assumption that mass and volume are roughly equivalent, so a more massive ship is also larger. That's true for many designs, but, realistically, some systems will be less dense than others. In particular, a ship built mainly of armor systems will have a smaller volume than one that is constructed of other systems such as cargo, weapons batteries, or engines. This is normally not enough to actually reduce the SM, but *is* enough to reduce the surface area that this armor is spread over, and hence increase overall DR.

If this rule is used, the dDR provided by a vessel's Armor systems will increase if at least five systems (25% of its mass) is devoted to sufficiently-dense armor. Total the number of armor systems and compare them to the *Armor and Size Table* (below).

dDR is the multiple to the dDR of *all* armor systems (round fractions down).

Target SM is the adjustment to the vessel's SM, when rolling to detect or attack it. (Since mass is unchanged, the SM change does not otherwise affect capabilities.)

Armor systems that are ice, organic, etherwood, or wooden are not appreciably denser than other systems and so are not counted as armor systems for this rule.

Armor and Size Table

Number of Armor Systems	dDR	Target SM
4 or less	×1	0
5-6	×1.2	0
7	×1.3	0
8-9	×1.4	0
10	×1.5	0
11	×1.6	0
12-13	×1.8	-1
14	×2	-1
15	×2.3	-1
16	×2.6	-1
17	×3	-1
18+	×3.6	-2

Example: An unstreamlined SM +6 craft has one diamondoid armor and three nanocomposite armor systems in its front hull (total dDR 45), three nanocomposite armor in its central hull (dDR 30), and two nanocomposite armor in its rear hull (dDR 20). As it has a total of nine armor systems, their dDR is multiplied by 1.4: its front hull increases to dDR 63, central hull to dDR 42, and rear hull to dDR 28. SM is not affected.

The Defiant itself took considerable fire, but its shields held – and when they fell, the ship also had ablative armor, which would enable them to last even longer in a fight.

– Keith R.A. DeCandido, “A Gutted World,” *Star Trek: Myriad Universes* #2

NEW SYSTEMS

These are additional *GURPS Spaceships* systems that can be installed.

COMBUSTION POWER PLANT (TL6) [ANY]

These power plants burn fuel and air to generate power. They are most useful for creating ground or water vehicles, as they won't function in space (or in any environment lacking atmospheric oxygen). They only function underwater if the vessel is cruising just beneath the surface and equipped with a snorkel (TL7; +\$10 per ton of vessel mass).

Internal Combustion Engine (ICE) (TL6): This is a gasoline or diesel engine. It provides one Power Point per system. Internal fuel provides six hours (TL6), eight hours (TL7), or 10 hours (TL8+) of operation. Additionally, each Fuel Tank of hydrocarbon fuel consumed by the engine lets it operate for six times that duration.

Gas Turbine Engine (TL7): A high-performance combustion power plant derived from jet engine technology. It provides two Power Points per system. Internal fuel provides three hours (TL7) or four hours (TL8) of operation. Additionally, each Fuel Tank of hydrocarbon fuel consumed lets it operate for six times that duration.

Hydrocarbon fuel is approximately \$2,000 per ton.

Combustion Engine Table

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Workspaces	0	0	0	0	0	0	1	3	10	30	100	300
Cost (\$)	3K	10K	30K	100K	300K	1M	3M	10M	30M	100M	300M	1B

Repair Skill: Mechanic (Internal Combustion Engine or Gas Turbine).

Use the listed cost for ICE; double cost for gas turbines.

Ground Performance

It's possible to use the design system to create van-size or larger ground vehicles. *GURPS Spaceships 4: Fighters, Carriers, and Mecha* introduced rules for leg-equipped walking vehicles. Craft with the flexibody, tracked or wheeled drivetrain systems covered in this article also have a ground Move and Speed, as well as a ground Hnd/SR.

Move: Refer to the tables under the appropriate system entries to get ground Move.

Ground Hnd/SR: This depends on SM. The first number on the table is Handling; the second is Stability Rating. Apply a -1 modifier to Handling if a Tracked or Wheeled craft is Winged.

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Tracked	-3/5	-3/5	-3/6	-4/6	-4/6	-4/6	-5/6	N/A	N/A	N/A	N/A	N/A
Wheeled	-1/4	-1/5	-1/5	-2/6	-2/6	-3/6	-3/6	N/A	N/A	N/A	N/A	N/A
Flexibody	0/4	0/4	-1/5	-1/5	-1/5	-2/5	-2/5	-2/5	-3/5	-3/5	-3/5	-3/5

FLEXIBODY DRIVETRAIN (TL9) [SPECIAL!]

This system is a set of motors and powered body segments that allow the vehicle to flex its body and slither like a worm or snake, or swim through water.

A flexibody has the same cross-country travel speed as a legged vehicle (as detailed in the *Basic Set* vehicle rules), but can squirm through narrow tunnels, burrow through soft soil, or swim in or underwater. It can easily change facing. This effectively doubles the normal arc of fire of any fixed mount weapons.

Three flexibody drivetrain systems *must* be installed, one per hull section, just like a Spinal Battery. Despite this being a

high-energy system, only one Power Point is required *regardless* of the number of systems. Up to three Power Points can be used, with greater power increasing speed and acceleration. The table shows the resultant Move depending on Power Points: This is ground acceleration/top speed and water acceleration/top speed in yards per second.

Power Points	Move (Ground)	Move (Water or Underwater)
1	1/4	1/2
2	2/8	2/4
3	3/12	3/6

If a flexibody has the nautical lines option (*GURPS Spaceships 7*, p. 21), double water and underwater speed.

The system is not considered destroyed until all three of its parts are disabled; disabling one part reduces the number of Power Points that can be applied to movement by one.

Flexibody drivetrains are available for all sizes of vehicle, since it wouldn't be much fun if giant robotic sand worms capable of devouring entire starships were not possible. Realistic designs may be limited to SM +10 or less, however.

Flexibody Drivetrain Table

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Workspaces	0	0	0	0	0	0	1	3	10	30	100	300
Cost (\$)	30K	100K	300K	1M	3M	10M	30M	100M	300M	1B	3B	10B

Repair Skill: Mechanic (Flexibody).

SCREW PROPELLER (TL6) [REAR HULL!]

These are screw propellers (or ducted propellers) plus associated gearing or electric motors for surface or underwater propulsion. They must be placed in the rear hull. No more than two screw propeller systems may be installed. Despite being a high-energy system, only one Power Point is required *regardless* of the number of systems, but up to two Power Points per

screw propeller system can be allocated. More power increases speed and acceleration as detailed below.

Screw propeller systems are most efficient when combined with the nautical lines feature (see *GURPS Spaceships* 7, p. 21).

A vessel with a screw propeller can operate in or under water. For simplicity, assume that Handling and Stability Rating in or under water is the base Hnd/SR shown on the *Hull Size Table* (*GURPS Spaceships*, p. 9) ignoring all other modifiers (including TL).

Screw Propeller Table

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Workspaces	0	0	0	0	0	0	1	3	10	30	100	300
Cost (\$)	2K	6K	20K	60K	200K	600K	2M	6M	20M	60M	200M	600M

Repair Skill: Mechanic (Screw Propeller).

Surface Water Movement

A vessel's Acceleration is equal to the half the number of Power Points (e.g., four Power Points give Acceleration 2). Top Speed in yards per second depends on the Power Points

available for screw propeller propulsion and the vehicle's SM, as shown in the table below.

The table assumes that the vehicle has the nautical lines feature. If it has only ordinary streamlining, multiply speed by 0.8. If it has no streamlining, multiply speed by 0.5. Round fractions down.

Top Surface Water Speed

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
1 Power	15	15	14	12	12	13	15	16	17	19	21	23
2 Power	20	19	17	15	15	16	17	18	20	21	24	26
3 Power	25	24	20	17	16	17	18	20	22	24	26	28
4 Power	30	26	22	20	20	20	21	22	23	25	26	30

Underwater Movement

A vessel with screw propellers can also operate underwater, provided it has either contragravity lifters or submarine ballast tanks (p. 7) and any crew and occupants can still breath (that is, the vessel does not have NBC Filter Only or No Life Support; see pp. 8-9).

Acceleration is equal to half the Power Points; underwater Top Speed depends on SM and Power Points as shown in the table below.

The table assumes that the vehicle has either nautical lines or ordinary streamlining. If it is unstreamlined, multiply speed by 0.5 (round fractions down).

Top Underwater Speed

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
1 Power	8	9	10	11	13	15	17	19	22	25	28	32
2 Power	10	11	13	15	17	19	22	25	28	32	36	40
3 Power	11	13	15	17	19	22	25	28	32	36	40	45
4 Power	13	15	17	19	22	25	28	32	36	40	45	50

SUBMARINE BALLAST TANKS (TL6) [ANY]

Vessels intended to operate underwater may install floodable tanks spaced through the vessel along with high-performance

pumps to rapidly take in or dump water ballast. This will give it positive buoyancy (to rise to the surface), neutral buoyancy (to swim underwater), or negative buoyancy (to dive). A filled ballast tank may also be used as a filled Fuel Tank of the same SM. Only one Submarine Ballast Tank need be installed on a vessel to let it operate as a submarine.

Submarine Ballast Tank Table

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Cost (\$)	4K	12K	40K	120K	400K	1.2M	4M	12M	40M	120M	400M	1.2B

Repair Skill: Mechanic (Vehicle Type).

Depth

This is maximum depth a vessel can dive without being crushed by pressure. It's useful for submarines, but can also be important for spaceships landing in hostile high-pressure environments like Venus or flying in a gas giant atmosphere.

The standard crush depth assumes a terrestrial ocean and an internal atmospheric pressure of 1 atmosphere.

Crush depth (in yards) = $dDR \times 150 / L$.

dDR is the decade-scale damage resistance.

L is the hull length in feet.

For alien liquids, multiply the crush depth by (world's gravity in G \times density of liquid relative to water). For atmospheric operations (e.g., in a gas giant), a pressure measured in atmospheres rather than depth is useful. Divide crush depth by 33 to get pressure in atmospheres. For example, a vehicle that can survive 1,000 feet of water can survive 30 atmospheres pressure.

TRACKED DRIVETRAIN (TL6) [HULL!]

This system is a set of tank-like caterpillar tracks and running gear along with a suspension and power train, intended for ground mobility. Tracks are excellent for clambering over rough terrain, but are slower than wheels on roads. One or two tracked drivetrain systems can be installed; two systems represent a more powerful drivetrain.

Regardless of whether there are one or two drivetrains, the craft has one pair of tracks, or possibly four tracks if SM +7 or larger.

Only one Power Point is needed, even if there are two drivetrains! However, as many as three Power Points per

drivetrain can be used, with greater power increasing tracked speed and acceleration. Ground Move (Acceleration/Top Speed, in yards/second) depends on the number of Power Points allocated as shown on the table below.

Power Points	Move	Power Points	Move
1	1/10	4	4/40
2	2/20	5	5/50
3	3/30	6	6/55

Tracked drivetrains are only available for vehicles of SM +10 or smaller. They must go in the central hull. Add to locations the note "2C" (optionally 4C if SM +7 or more).

Tracked Drivetrain Table

SM	+4	+5	+6	+7	+8	+9	+10
Workspaces	0	0	0	0	0	0	1
Cost (\$)	15K	50K	150K	500K	1.5M	5M	15M

Repair Skill: Mechanic (Tracked).

WHEELED DRIVETRAIN (TL5) [HULL!]

This system is a set of multiple powered wheels along with a suspension and transmission or electric motor. It lets the craft move on the ground. One or two wheeled drivetrain systems can be installed; two systems represent a more powerful drivetrain.

Although a high-energy system, only one Power Point is required *regardless* of the number of wheel systems installed. However, up to three Power Points can be allocated per drivetrain system, with greater power increasing speed and acceleration.

The vehicle's ground Move depends on the number of allocated Power Points and the vehicle's streamlining, as shown below. Move is the vehicle's ground acceleration/top speed in yards per second; double them to get a figure in mph.

<i>Power Points</i>	<i>Unstreamlined or Nautical Lines</i>	<i>Streamlined</i>
1	2/28	2/42
2	4/35	4/52
3	6/40	6/60
4	6/44	8/66
5	10/48	10/72
6	12/50	12/75

Wheeled drivetrains are normally road-bound (p. B463); add an * to their speed. To remove this limitation, all wheeled drivetrains on a vehicle may optionally have an *off-road* design feature, representing a system with bigger tires, heavier suspensions, and all-wheel drive. These reduce top speed (the second number) by 5 (e.g., a streamlined vehicle with one Power Point is 2/37) due to increased friction.

Wheeled drivetrains are only available for vehicles of SM +10 or smaller. A vehicle with this system adds the W notation to location: either 4W, 6W, or 8W (as desired).

Wheeled Drivetrain Table

<i>SM</i>	<i>+4</i>	<i>+5</i>	<i>+6</i>	<i>+7</i>	<i>+8</i>	<i>+9</i>	<i>+10</i>
Workspaces	0	0	0	0	0	0	1
Cost (\$)	3K	10K	30K	100K	300K	1M	3M

Double cost for off-road drivetrains.

Repair Skill: Mechanic (Wheeled).

*The crew of **Discovery One** consists of five men and one of the latest generation of the HAL-9000 computers. Three of the five men were put aboard asleep, or to be more precise, a state of hibernation.*

*– Interviewer, **2001: A Space Odyssey***

VARIANT DESIGN FEATURES

These are additional nonsystem options that can be added to vessels.

Armor by Facing

Land and watercraft often have much more complex armor schemes than spacecraft. To satisfy this, consider ignoring the rule that Armor systems only protect the subassembly they're placed in. Instead, location of an armor system is irrelevant. Just add the dDR of all subassemblies together, multiply by 2, and divide that dDR as desired among six facings: Front (F), Right (R), Left (L), Back (B), Top (T), and Underside (U). (Assume that underside armor also protects any tracks, legs, or wheels.)

This option is not recommended for spacecraft, as the space combat rules are built around maneuvers and arcs of fire that make use of front, central, and rear hull divisions.

Hull Length

The hull length guidelines recommend streamlined vessels be twice as long as listed on the *Hull Size Table* (**GURPS Spaceships**, p. 9). Realistically, many unstreamlined spaceships will also be that long. Many speculative nuclear or antimatter-powered spacecraft tend to be extremely skinny for their mass (doubling their length), mainly to ensure maximum

separation between a radiation-spitting drive and the crew habitat, and also provide room for hull radiators. Doubling length is reasonable for any unstreamlined craft using the Exposed Radiators option (**GURPS Spaceships**, p. 31), especially if thrust is under 0.1G. A good fictional example is the *Discovery* in *2001: A Space Odyssey*.

NBC Filters Only, No Life Support

A craft built to operate in a breathable atmosphere can omit oxygen production equipment. There are two variations on this.

NBC Filters Only (TL7): A nuclear-biological-chemical overpressure system that removes airborne fallout and toxins but won't provide breathable air if none exists. This is typical of filtration systems on tanks or surface warships. The extra space means it has 1.5 × as many cabin equivalents in Habitats or 1.5 × as many seats in Passenger Seating (round up). It's still sealed, but remove the "V" notation for occupancy.

No Life Support: The system has no oxygen generation or filtration capability at all! It's no longer sealed. Omit the V and S occupancy notations in the statistic block. The extra room from removing life support allows twice as many cabin equivalents in Habitats or twice as many passenger seats in Passenger Seating to be carried. Cabins still have air conditioning, lights, plumbing, etc.

Minifacs, teleport projectors, or hibernation systems don't benefit much from the extra space that reducing life support makes available. To represent this, increase the number of cabins these specialized rooms are exchanged for by $1.5 \times$ (if NBC Filters Only) or $2 \times$ (if No Life Support). Thus, if a vessel has No Life Support (doubling the number of cabins that fit in each Habitat), each minifac installed would be exchanged for two cabins instead of the usual one. Similarly, when replacing cabins with cargo, each unused cabin only provides either three tons (NBC Filters Only) or 2.5 tons cargo (No Life Support) rather than the usual five tons.

Both of these options are incompatible with Total Life Support. However, either can still be combined with the use of Open Space systems to grow food.

Note that these options can be considered a generalization of magical life support (*GURPS Spaceships* 7, p. 9).

The Square Root of Destruction

In *GURPS Spaceships*, the assumption underlying the beam weapon damage is that it scales with the *cube root* of input energy. This has the advantage of ensuring that damage of more massive weapons increases at the same ratio as HP of more massive ships. It also reflects a reasonable assumption on efficiency of beams vs. other types of attacks.

However, there's another possibility. In *GURPS*, explosion effects and damage from kinetic energy projectiles like bullets are normally scaled to the *square root* of energy. It's not unreasonable to assume an energy beam or pulse might behave like an explosion. So, what if spaceship beam weapon damage started out at a value similar to the existing numbers, but increased at the same progression rate as either bullets or explosions?

The primary effect would be to make more powerful weapons like gigawatt or terawatt beams do a *lot* more damage. Cruiser and battleship-sized batteries could emit awesome energy barrages that burn through nearly anything, leveling cities with a few sweeps of their beams (*especially* if the cosmic option is added). This may better fit cinematic campaigns and science-fiction sources. It also ensures that powerful beam weapons are the equal to high-velocity missiles in their sheer destructiveness.

If this option is used, it's a good idea to pair it with a design switch that increases armor protection, like *Armor and Volume* (p. 4), or use it in conjunction with upgraded force screens or

multiply-hardened armor. Otherwise, ships will whiff out of existence too easily!

Beam Damage Table

Output	dDam 2	dDam 1
3 kJ	1d-3	1d-5
10 kJ	1d-2	1d-4
30 kJ	1d	1d-2
100 kJ	2d	1d
300 kJ	3d	1d+2
1 MJ	6d	3d
3 MJ	10d	5d
10 MJ	2d×10	9d+2
30 MJ	8d×4	8d×2
100 MJ	6d×10	6d×5
300 MJ	5d×20	5d×10
1 GJ	6d×30	6d×15
3 GJ	8d×40	8d×20
10 GJ	6d×100	6d×50
30 GJ	5d×2,000	5d×100
100 GJ	9d×200	9d×100
300 GJ	8d×400	8d×200
1 TJ	6d×1,000	6d×500
3 TJ	5d×2,000	5d×1,000
10 TJ	9d×2,000	9d×1,000
30 TJ	8d×4,000	8d×2,000
100 TJ	6d×10,000	6d×5,000
300 TJ	5d×20,000	5d×10,000
1 PJ	9d×20,000	9d×10,000
3 PJ	8d×40,000	8d×20,000

Ranges are unchanged from the original table.

Torpedo Tubes and Torpedoes

Any launchers may be designated as *torpedo tubes* to fire projectiles underwater. Torpedo tubes holds only 80% of normal shots (round up) but can fire both torpedoes and missiles (the latter rise out of water to hit surface, air, or space targets).

Torpedoes have the same warhead, cost, etc. as missiles but operate underwater. Typical TL8+ torpedo are Acc (TL-5), guided or sonar homing, with Move 25 and a range of (1,000 × diameter) yards. TL7 torpedoes are Acc 2 with half that range and Move 25. TL6 torpedoes are unguided, Move 20, Acc 1, with a range of (100 × diameter) yards.

BUILDINGS

Want a secret headquarters for your team of supers, monster hunters, or mercenaries? The *GURPS Spaceships* rules can be pressed into service as a quick way to create customized, well equipped buildings. Design a building much like an unstreamlined hull with whatever systems and features are desired, but with these special rules.

Vertical Design: While using front, rear, and central sections is reasonable for some buildings, a building can alternatively be classed as a *vertical design*, its three sections instead being categorized as lower, middle, and upper floors. If so, the building's length is actually its height. In large vertical buildings (skyscrapers, towers, etc.), these represent multiple stories. Attackers may choose to target any particular section.

But unlike the bulky starships, the torpedoes were too many and too fast. Sleek and unencumbered by their mass, they locked onto their target and the guidance computers in the torpedoes made sure that they stayed on track.

– Ralph A. Gilson,
The Hexan Protocol

Basement: A vertical design building may optionally have an extensive underground level. Designate one or more of the lower story systems as basements. Basement systems cost an extra \$1,000 per ton of building mass to cover excavation costs over and above their normal system costs, but are hidden from view and cannot be targeted directly. However, they're automatically buried if the rest of the building is disabled, and destroyed if the rest of the building is destroyed.

Armor: A building requires a minimum of one Armor system per section, representing its structural composition.

Control Room: A control room is not required, but if installed, it can represent a computer room or command center. Since the building does not need as sophisticated controls and can omit gyros or attitude thrusters, *halve* the Control Room cost. Each control station removed saves only \$25K.

Engine Room, Workspaces: In a building, these are often referred to as a maintenance rooms or spaces.

Engines, Etc: A building shouldn't have any system or feature related to mobility or propulsion. It has HP but no ST, and lacks Hnd, SR, or Move statistics.

Enhanced, Multipurpose, and Tactical Comm/Sensor Arrays: Sensor and directional comm ranges will be limited by the horizon. In a vertical-design (p. 9) building, these arrays (and Control Rooms) should be placed on the upper section to ensure a long line of sight.

Weapons: In a vertical design, fixed mounts must be given a facing. This may be either right, left, back, front; upper level mounts may also face top, aiming upward. They can only hit targets within a 60° arc from that facing. Turrets installed in lower or middle sections must be assigned one of these facings (excluding top), but may swivel to hit targets within a 120° arc. Turrets in an upper section are assumed to be roof-mounted and have a 360° arc of fire. Missiles in spinal batteries or in fixed mounts in upper stories may be noted as facing upward (allowing vertical launch). Weapons can't go in basement systems unless either the entire building is underground (in which case top-facing fixed mount or any turret weapons can be installed in upper level section of the basement), or unless they're a third of a spinal battery or a ghost particle beam.

ABOUT THE AUTHOR

David L. Pulver is a freelance writer and game designer based in Victoria, British Columbia. He is the co-author of the *GURPS Basic Set Fourth Edition*, and author of *Transhuman Space*, *GURPS Mass Combat*, *GURPS Spaceships*, and numerous other gaming products. For additional details about the author, see his *Eidetic Memory* column (pp. 24-25).

Medusa-Class Guided Missile Cruiser (TL8)

This is an example of how to use the *Spaceships* system with these options to build watercraft. The *Medusa* class is a wet-navy, guided-missile cruiser; equipped with a phased-array radar, guns, and multiple vertical-launch missile and torpedo tubes. The hangar is designed to carry a pair of helicopters and their weaponry.

Front Hull System

- [1] Steel Armor (total dDR 7).
- [2] Major Battery (turret with 12cm rapid fire gun).*
- [3] Secondary Battery (six fixed 32cm torpedo tube launchers; 200 tons cargo).*
- [4] Tertiary Battery (30 fixed 28cm launchers).*
- [5] Control Room (C5 computers, comm/sensor 7, 10 control stations).*
- [6] Fuel Tank (500 tons hydrocarbon fuel).

Central Hull System

- [1] Steel Armor (dDR 7).
- [2] Tactical Comm/Sensor Array (comm/sensor 9).*
- [3-4] Fuel Tanks (1,000 tons of hydrocarbon fuel).
- [5-6] Gas Turbine Engines (provides four Power Points).*

Central Hull System

- [core] Habitat (3 ops centers, 10 sickbay, 20 cabins, 24 bunkrooms, 18 tons cargo).*

Rear Hull System

- [1] Steel Armor (dDR 7).
- [2] Tertiary Battery (30 fixed 28cm launchers).*
- [3] Tertiary Battery (29 fixed 28cm launchers; one turret with very rapid fire 3.5cm gun).*
- [4] Hangar (300 tons capacity; helicopters and small boats).*
- [5-6!] Screw Propellers.*
- [core] Habitat (50 bunkrooms, 25 cabins, establishment, seven offices, 18 tons cargo).*

*10 workspaces per system.

It has the Lacks Automation†, Nautical hull†, and NBC Filters Only (p. 8) features. The vessel's typical complement consists of 10 bridge crew, 30 ops station crew and gunners, 150 technicians and service personnel, and a variable number of flight crew.

† See *GURPS Spaceships 7: Divergent and Paranormal Technology*.

TL	Name	dST/HP	Hnd/SR	HT	Move	LWt.	Load	SM	Occ	dDR	Cost
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SEAMANSHIP/TL8

8	Medusa-class	150	-2/5	13	2/21	10,000	574.6	+10	386AS	7	\$448M
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A NEW TAKE ON GRAPPLING

BY KEN CLARY

The grappling system in **GURPS** is one of the most comprehensive and realistic systems presented in any RPG. The **GURPS Basic Set**, **Martial Arts**, and other supplements provide a wealth of options for close combat.

However, the existing grappling rules are somewhat disjointed, using many different resolution mechanics. They force players to choose between strength alone or skill with no strength at all; some consider both options to be artificial.

This article redefines **GURPS** grappling, aiming to add consistency, flexibility, and realism. It combines a universal "Grappling Contest," new core grappling rules, and a flexible "Setup" mechanic. It then deconstructs most existing grappling techniques and rebuilds them based on these new fundamentals, all while expanding the options available to grapplers.

SKILLS

The grappling skills (Judo, Sumo Wrestling, and Wrestling) are altered. Defensively, they all behave the same: Sumo Wrestling and Wrestling use Judo's rules for parries, including its improved parry against weapons, its +3 Retreat bonus, and its encumbrance penalties. Despite all sharing names with sports, each is a combat skill.

Offensively, Sumo Wrestling and Wrestling are subsets of Judo, similar to optional specialties. They do not grant ST bonuses; all grappling skills use strength extensively, which is incorporated into most grappling techniques.

Judo

DX/Hard

Defaults: Sumo Wrestling-2, Wrestling-2.

Judo is the core grappling skill, representing any comprehensive training or innate skill in advanced grappling, control, pinning, takedowns, and submissions.

A Judo Parry does not automatically set up a Judo Throw or other techniques; see *Grabbing Parry* (p. 13) instead.

Sumo Wrestling

DX/Average

Defaults: Judo, Wrestling-2.

Sumo Wrestling represents focus on grappling techniques that manipulate momentum and balance, such as Control Step (pp. 14-15) and Takedown (p. 15). *Sumotori* use Sumo Wrestling

Sport (in addition to their large size), while many *aikidoka* learn Sumo Wrestling Art – this skill could easily be renamed "Aikido."

Wrestling

DX/Average

Defaults: Judo, Sumo Wrestling-2.

Wrestling specializes in restraint and leverage, including pinning, wrenching, and constriction techniques. Styles such as Brazilian Jiu-Jitsu would use Wrestling (along with the Ground Fighting technique and the Ground Guard perk, revised below).

*Man in Black: Frankly,
I think the odds are slightly
in your favor at hand
fighting.*

*Fezzik: It's not my
fault being the biggest
and the strongest.*

I don't even exercise.

– The Princess Bride

PERKS

Two perks are affected by this alternate system.

Ground Guard

This perk is changed to give +1 to grapples with one or more legs. See *How Many Hands?* (p. 12).

Power Grappling

This perk is obsolete, as nearly every grappling technique utilizes strength directly.

It feels good to grab your flesh! I am going to kill you slowly, painfully, but first, we have some delicate work to do. How could I snap your limbs off!

– Megatron, in *Transformers: Revenge of the Fallen*

BASICS

When learning the following rules, it can help to look at the *Grappling Example* on p. 18, to see how everything fits together.

Grappling Contest

Grappling always involves a combination of power, leverage, balance, speed, timing, and coordination. In **GURPS** terms, nearly all grappling techniques should be affected by Strength, Dexterity, size, and skill.

A “Grappling Contest” is a Quick Contest used for almost every grappling situation. Each grappler adds ST and 3×SM to his roll. In cases where a combatant brings raw weight to bear, substitute HP for ST.

Performing a technique with a Grappling Contest is considered an attack; resisting a grappling technique is a defense. The defender’s side is usually based on his DX or best grappling skill. Therefore, a “Grappling Contest based on Control Position” is shorthand for a contest between your

Control Position technique + ST + 3×SM vs. your opponent’s DX or best grappling skill + ST + 3×SM.

All-Out Attack (Determined) gives +4 to offensive grappling techniques. During any All-Out Attack, grappling defenses are still allowed, but at -4. Committed Attack (Determined) gives +2 to grappling offense, and any Committed Attack gives -2 to grappling defense. Defensive Attack gives -2 to offense and +2 to defense. All-Out Defense (Increased Defense) allows +4 to defense.

Apply a cumulative -1 to each grappling defense in a turn, after the first.

Effects of a Grapple

If you have a grip on your foe, or he has one on you, you act as a single unit . . . albeit one that’s fighting itself. You can use grappling techniques to control your foe and resist his movements – this turns most actions into Grappling Contests. See *Control* (pp. 14-15).

If you’ve grappled a location (or it, such as a hand or limb, has grappled you), it has no location penalty for grabs and half penalty for strikes.

These rules replace the standard penalty to DX for being grappled.

How Many Hands?

Offensive grappling techniques, defensive use of control techniques, and resisting Escape attempts are all affected by the number of hands and limbs you are using to grapple.

The default grapple is two-handed. Each hand fewer gives -3. Each extra hand (including its arm) gives +3, while each extra limb (either a leg or an arm with an occupied or missing hand) is +1. Each pair of legs gives a further +1. For example, grappling with just one arm and no hands would have -5, one hand and one arm would have -2, two hands and one leg would have +1, and two hands and two legs would have +3. Grappling with a bite gives +2.

Grappling with no limbs at all – that is, pressing with your body – would have -6, and is possible in limited circumstances; see *Grappling by Being Grappled* (p. 13) and *Pin (Body Part)* (p. 15).

While grappling is done with limbs, it is a full-body activity. Grapples may hug the target to the torso, press against other body parts, or just press into the target. Using a hand could represent clasping the target directly, hugging the target with an arm and clasping yourself, or other interpretations; it only requires the hand be otherwise free. A leg may wrap around, press into, or kneel/stand on the foe.

Posture, Orientation, and Facing

There is one new posture: A character can lie on his side, which is halfway between lying prone (face down) and lying face up, sharing their posture penalties.

When on the ground, your “orientation” is the direction your body is pointing, that is, which hex side your head points toward. Your *relative* orientation is how this compares to your opponent’s orientation: whether you are pointed in the same direction, to the side of each other, in opposite directions, etc.

In close combat, keep track of relative facing. One character can grab another from the front, side, or rear. This is still true if one or both characters are on the ground (prone, face up, on side, or crawling), in which case, relative facing determines who is on top, side, or bottom.

Grappling Contests and grabs have -2 against opponents to your side and -4 to your rear. These do not apply to limbs that have wrapped around your front.

Whenever either you or your opponent are grappling the other, your posture, facing, and location relative to his must be compatible with the grapple(s). For example, if you have grappled his torso and he is on the ground, you need to be crouching or lower in the same hex as his upper body.

Grappling can be very fluid, and the rules for what you are grabbing and how are approximations; the exact nature of your grip can change rapidly, based on your maneuver, position, technique, and setup.

GETTING A GRIP

These rules define the term “grab” as an attack made to establish a grapple; it always refers to grabbing your *opponent*, not his weapon or equipment.

To grab a target, roll against your best grappling skill to hit; this is *not* affected by the number of hands/limbs you are using. Your opponent may Block, Dodge, or Parry to defend. Use half the hit location penalty for grabbing specific body parts; otherwise, you grab the torso. You may use Deceptive Attack, Feint, and other melee attack options as usual.

For grappling purposes, “head” is a new hit location: an indiscriminate combination of face and skull, which can be grabbed at -2. Also, grabbing the neck can be done for only -2. The majority of grappling is only concerned with torso (0), neck (-2), head (-2), arm (-1), hand (-2), leg (-1), and foot (-2) locations.

Complex Grapples

You can grab more than one hit location with a single, bundled grapple. Take the worst hit location penalty of the set, and add -1 for each extra location. For example, grabbing the torso and both arms together would be -3, while grabbing the neck and one arm would be -3.

The GM may add extra penalties for awkward combinations, or disallow them completely – often, grappling a standing opponent’s arm and leg would have an extra -1, and not be possible with a one-handed grab.

If more than one of the locations you have grappled can be used for a technique, use the best one.

Transition

Once you have a grapple, you can Transition to a new set of locations with a Grappling Contest. Use the penalty for the most difficult *new* hit location and add -1 for each additional *new* location. If you lose the contest, you lose your grip on all locations except those shared by your previous and intended grapple.

A second creature turned and three tentacles grabbed Brent’s arms. He could feel the surprisingly warm and slippery limbs around him and saw a row of rubbery suction pads that latched onto him.

– Ross Richdale,
Transmigration

Fancy Grabs

Grapplers have a couple of nice tricks for seizing an opponent.

Grabbing Parry

Hard

Default: prerequisite skill Parry-2.

Prerequisite: Judo, Sumo Wrestling, or Wrestling; cannot exceed prerequisite Parry-1.

While in close combat, you can grab an attacking limb with a Grabbing Parry. With an extra -1, you may grab the attacking hand or foot instead. Grabbing Parry is one-handed or one-armed; if you use Cross Parry (*GURPS Martial Arts*, p. 121), which gives +1 to your defense, you may grab with both hands/arms.

If the attacker has the Rapid Retraction perk, your margin of victory must be at least 2 for you to successfully grab.

This replaces the rules for Judo Parry setups and realistic uses of Hand Catch.

Immediate Techniques

You can combine a grab and grappling technique into a single attack. Roll for the grab; if you succeed and get past active defenses, immediately roll the technique’s Grappling Contest at -3. If you lose the contest, you also fail to grab.

This option requires rolling against Judo, Sumo Wrestling, or Wrestling. Techniques cannot be combined with a Grabbing Parry; to preempt an attack with a grappling technique, use Stop Hit (*Martial Arts*, p. 108) instead.

Transitioning from a torso grapple to an arm grapple would be at -1. Going from an arm and torso grapple to a torso and leg grapple would be at -1, and you lose your grip on all but the torso if you lose the contest.

Adding a hand/limb to a grapple or letting go entirely is a free action. You can let go with any hand/limb and still keep the grapple as part of any Transition; if you lose the Grappling Contest, you lose the entire grapple.

If you are rolling against Judo, Sumo Wrestling, or Wrestling, a Transition can be combined with any grappling technique by adding the Transition’s penalty and an additional -1.

Grappling by Being Grappled

If your opponent has grabbed you, and you have not grabbed back, you are still “connected.” Find the body parts he is using to grapple you and your body parts that he is grappling, *invert* them, and apply a further -2. If he has grappled your hand, treat it as your arm having grappled him. For example, if he has grabbed your torso with two hands, you can act as having grabbed his hands with your torso (which is -6; see *How Many Hands?* on p. 12) for a total penalty of -8 to grappling techniques.

Your foe may immediately let go if you start any offensive grappling technique like this. If he holds on, he grapples for the duration of the attack.

CONTROL

You use control techniques to move your foe around, change his relative facing, change his posture, etc. You use them defensively to stop his movement and actions. They are resolved as Grappling Contests based on the given technique. Control techniques replace and expand the rules for “shoving people around” and pins.

When you use a control technique defensively (to stop your opponent’s action), his roll becomes a Grappling Contest, which he must win to succeed. He bases it on whatever he would have rolled against if he weren’t grappled, while you base your roll on the appropriate control technique. If his action would not normally require a roll, base it on his DX or best grappling skill.

Control can be used defensively to stop an active defense (Dodge, Parry with a specific arm, etc.) against someone else’s attack. To hinder a defense against your own attack is an offensive use, which requires All-Out Attack (Double) or another means of making two attacks in a turn.

Taking the Back

Grapplers often try to “take the back” – a grapple from the rear puts the victim at a severe disadvantage. Control Position and Control Step both allow you to change your opponent’s relative facing. If you do so, *and* he has grappled you, he may defend using Control Torso+4. If you succeed, you also free your torso from his grapple, as an Escape (see *Escaping*, p. 17).

Runaround Grab

If your opponent grabs you with a runaround attack (see p. B391), you may turn to treat it as a side grab. If he runs around to grab your side, you may turn to make it a front grab.

Control (Body Part)

Average
Default: DX, Judo, Sumo Wrestling, Wrestling; cannot exceed default.

This basic technique allows you to control specific body parts. For example, Control Arm can force your opponent to pull a lever and, defensively, stop his punch, Parry, or aim. Control Hand can make him drop a remote or stop him from pulling a trigger. Control Torso can stop his Dodge.

Control techniques cannot force someone to make unarmed/melee attacks or active defenses.

- Control Torso is at -4 for a hand or foot grapple; -3 for two extremities (hands or feet); -2 for a neck, head, arm, or leg grapple; or -1 for two limbs or for one limb and either the neck or head.
- Controlling a limb is at -2 for grappling the torso or the limb’s extremity.
- Control Head works at -2 for a neck grapple, and Control Neck works at -2 for a head grapple.

You can use control techniques to defend against strikes, grabs, or grappling techniques performed with the controlled body part. For defending against grappling techniques, this might only be advantageous if you have a specific setup (see *Setup* on p. 17) or are using extra limbs.

Control Position

Average
Default: DX-3, Judo-3, Sumo Wrestling-3, Wrestling-3; cannot exceed default+2.

This technique uses the same location penalties as Control Torso (above). Your opponent may substitute HP for ST in the Grappling Contest when resisting.

Use Control Position to rotate your opponent to change his facing, orientation, or posture. If you are rolling and changing posture with him, without changing your *relative* facing/orientation/posture, you gain +1 and may substitute HP for ST. Add -2 to change his relative facing between front and rear or between opposite sides. Add -2 to move him from a ground posture to standing. Defensively, use Control Position to stop your foe from changing facing, posture, or orientation.

Rotating your foe around is harder when he grapples you; see *Taking the Back* (above).

Control Position still uses penalties for posture (p. B231 and *GURPS Martial Arts*, p. 73), which can be offset by the Low Fighting and Ground Fighting techniques.

Control Step

Average
Default: DX, Judo, Sumo Wrestling, Wrestling-2; cannot exceed default+2.

This technique uses the same location penalties as Control Torso (above). Both you and your opponent may substitute HP for ST in the Grappling Contest.

But the hands, though empty, can become more deadly than any weapon. It is the combination of force and a development of courage.

– Sensai, in The Avengers #4.3

With Control Step, you can move a standing opponent around, by forcing him to step and/or turn with you, or by changing his facing relative to you. Do both at the same time with -1. Changing his relative facing between front and rear or between opposite sides requires an additional -2. Defensively, use Control Step to stop your opponent from stepping or turning.

If your foe is crouching, take -2 to Control Step.

Spinning your foe around is harder when he grapples you; see *Taking the Back* (p. 14).

This technique is necessary to take a step while grappling, as you need to force your opponent to move. If you are only moving, without turning yourself or your opponent, you may ignore the number of hands/limbs you are grappling with and instead use a flat +1, by pushing or pulling with your full body.

Pin (Body Part)

Average

Default: DX+2, Judo, Sumo Wrestling, Wrestling+2; cannot exceed default.

A pin is a special case of control. If you are pressing your opponent against the ground, by being positioned on top, use Pin (Body Part) instead of Control (Body Part) to defensively stop that part from moving. If you are pressing him against a vertical immobile surface, like a wall, take -1 (which is still a net bonus over Control).

Pin (Body Part) uses the same penalties as Control (Body Part) for affecting adjacent body parts; thus, an attempt to Pin Torso would be at -2 if the closest body part you have grappled is the arm, whether you are directly pressing the torso or the arm. You may substitute HP for ST when pinning.

TAKEDOWNS

These techniques put an opponent on the ground, by manipulating his balance, overwhelming him with brute strength and mass, or both. They replace **GURPS** rules for Takedown, Judo Throw, Sacrifice Throw, some realistic uses of Piledriver and Backbreaker, and – when combined with *Immediate Techniques* (p. 13) – some applications of Sweep.

For any takedown technique, establish a grapple and roll a Grappling Contest based on the takedown technique. Your foe may substitute HP for ST when resisting. He must be standing or crouching; if he is crouching, you have -2 to bring him down. At the technique's start, decide if you are letting go or keeping hold if successful.

Takedown

Hard

Default: DX-1, Judo-1, Sumo Wrestling-1, Wrestling-3; cannot exceed default.

Takedown uses the same location penalties as Control Torso or Control Leg (see p. 14); gain +1 if you have both legs grappled or your foe is standing on one leg. Each extra free leg (past the default two) that you have *not* grappled gives -1.

Specify the direction in which your target will topple; he must land prone, face up, or on his side, with his lower body in his starting hex. If you elect to let go at the end of the technique, he chooses his final posture; otherwise, you decide.

You have three mutually exclusive options for “sacrificing” your own posture:

- For +3, fall alongside him, dropping to your choice of prone, face-up, or on your side. You may not change your relative facing. You may substitute HP for ST.
- For +2, pull him down with you, dropping to a kneeling or sitting posture. You may substitute HP for ST.
- For +1, “reap” his leg using one of your own; he must have at least one free leg, and you must have at least two. Immediately after the Takedown, whether you succeed or fail, make a DX roll to not fall over.

Homeless Man: She was feisty; put up a fight.

Jack O'Neill: With whom?

Homeless Man: Ninjas.

Three, maybe four. Happened fast. They pulled up in a white van, grabbed her. I've been telling the police about ninjas for years.

You think they listen?

– **Stargate SG-1 #5.11**

Judo Throw

Hard

Default: DX-2, Judo-2, Sumo Wrestling-2, Wrestling-4; cannot exceed default.

This technique involves upending or lifting your opponent. It uses Control Torso's location penalties (see p. 14), and may be used with Takedown's sacrificial options (above). You must be standing. Choose which hexes your opponent lands in when you start to throw; they must overlap or be adjacent to his starting hex.

Your foe takes damage as a fall from half of your height (see *Falling*, p. B431). You may “drive” him to the ground with -1, substituting your thrust damage (+1 for a hard ground surface).

How he lands, and where he takes damage, has five options:

- Land him on his back, lying face up. This is the default, and damage is to his torso.
- Land him prone (face down) with -1. Damage is to his torso.
- Land him on his side with -1. Damage is to that side's arm.
- Land him on his head with -2, after which he falls face-up or on his side. Roll 1d: on a result of 1-3, damage is to his neck; 4-6 indicates skull damage.
- Land him on his head with -3, after which he falls prone. Roll 1d: on a result of 1-3, damage is to his neck; 4-5 damages his skull; 6 damages his face.

Without bothering to call for help, Nicholas ran forward and dived at the man who was holding Elias, pulling him away and flinging him against a wall.

*– Edward Marston, **The Princess of Denmark***

Breakfall

Average

Default: Acrobatics, Judo, Sumo Wrestling, Wrestling.

Prerequisite: Acrobatics, Judo, Sumo Wrestling, or Wrestling; cannot exceed prerequisite skill+4.

This technique lets you to control a fall and reduce damage from being thrown. Roll against Breakfall to reduce the effective height of a fall – including from a Judo Throw – by five yards. If the thrower “drove” you to the ground for thrust-based damage, a successful Breakfall reduces damage by 1 plus your margin of success.

If you are landing on your head, Breakfall is at -1. You can change your final landing posture from side to face-up or prone, or vice versa, for -1. You can change it from face-up to prone, prone to face-up, or one side to the other for -2.

If your thrower chose to let go of you, you may roll to a crouch, in the farthest landing hex, for -3. Otherwise, you can flip over into a crouch, still grappled, for -5.

WRENCHING

These techniques replace the “brute-force” Wrench and Snap techniques as well as the “skilled” Lock techniques. For each, establish a grapple to the right location, roll a Grappling Contest based on the wrenching technique, and do the margin of victory as crushing damage to the listed target; rigid DR protects as normal.

Take -1 to inflict pain (p. B428) instead of damage: If your margin of victory is at least 2, your target suffers moderate pain; if at least 4, severe pain, if at least 6, terrible pain; if at least 10, agony.

You may wrench a location only once a turn. On subsequent turns, you may wrench again; your opponent may be suffering from shock or pain penalties.

Wrench Arm

Average

Default: DX-3, Judo-3, Sumo Wrestling-5, Wrestling-3; cannot exceed default+3.

Damage is to the arm; it requires an arm grapple, or takes -2 for a hand grapple.

Wrench Wrist/Finger

Hard

Default: DX-4, Judo-4, Sumo Wrestling-6, Wrestling-4; cannot exceed default+4.

Damage is to the hand. It requires a hand grapple.

Wrench Leg

Hard

Default: DX-4, Judo-4, Sumo Wrestling-6, Wrestling-4; cannot exceed default+4.

Damage is to the leg. It requires a leg grapple, or takes -2 for a foot grapple.

Wrench Ankle

Hard

Default: DX-4, Judo-4, Sumo Wrestling-6, Wrestling-4; cannot exceed default+4.

Damage is to the foot. It requires a foot grapple.

Wrench Neck

Hard

Default: DX-3, Judo-3, Sumo Wrestling-5, Wrestling-3; cannot exceed default+3.

Damage is to the neck. It requires a neck or head grapple.

Wrench Spine

Hard

Default: DX-5, Judo-5, Sumo Wrestling-7, Wrestling-5; cannot exceed default+3.

Damage is to the spine. It requires a torso grapple, done with at least two body parts.

CONSTRICTION

These techniques replace the Choke, Strangle, Choke Hold, and Bear Hug actions. They consist of a Grappling Contest based on the constriction technique, which does crushing damage equal to the margin of victory. The Constriction Attack advantage gives +5.

Bear Hug

Average

Default: DX-4, Judo-4, Sumo Wrestling-6, Wrestling-4; cannot exceed default+1.

Damage is to the torso; it requires a torso grapple. With -2, the victim instead takes fatigue damage as you squeeze out his breath.

Choke

Hard

Default: DX-2, Judo-2, Sumo Wrestling-4, Wrestling-2; cannot exceed default+2.

This requires a neck grapple and damages the neck. It can cut off air: If at least 1 point of damage gets past DR, the victim loses 1 fatigue and begins to suffocate. With -2, you may perform a carotid choke instead, which inflicts fatigue damage.

Head Crush

Hard

Default: DX-4, Judo-4, Sumo Wrestling-6, Wrestling-4; cannot exceed default+1.

Damage is to the skull, which still has DR 2; it requires a head grapple. With -1, you instead inflict pain as per the Wrench techniques (p. 16).

ESCAPING

You can escape from a grapple, partially or fully, with a Grappling Contest; this replaces and extends Breaking Free. Base the contest on your DX, best grappling skill, or Escape skill.

By default, you reposition yourself within your opponent's grip, subtracting your margin of victory from his Setup bonuses (see below) – this is only a partial escape, and does not free you from the grapple. If he has multiple Setup bonuses against you, you may split your margin of victory against them.

Take -3 to, instead, free a single grappled body part, which also negates *all* Setups made against you; take an extra -1 for each additional part to free.

Escaping is an attack, but the limbs you are grappling with do not matter. Your opponent bases the Grappling Contest on his DX or best grappling skill, modified by the number of hands/limbs he is grappling with.

Bison: You see, no one has ever seen you in combat. You always hid behind your sumo and your boxer. Why, since you entered this country, you never even threw a single punch. No, my dear. I know women . . . and you are harmless.

Chun Li: That's exactly what I wanted you to think. Yah-tah!

– *Street Fighter*

Setup

Any grab, grappling technique, or Transition can be used to set up a follow-up technique. Setups represent special grips, joint-twists, *kuzushi*, feint-like redirections, or any combination thereof. They require rolling against either Judo, Wrestling, or Sumo Wrestling. The GM may limit total Setup bonuses to half the number of points spent in the grappling skill, rounded down.

Perform a Setup by taking a penalty to your current grappling technique and fully specifying the action that is to follow: “reaping Takedown to the rear hex, letting go,” “carotid choke,” etc. If you succeed at your current action, gain a positive bonus to the follow-up technique equal to your chosen penalty; e.g., if you took -1 to Setup a Takedown, you may later perform that specific Takedown at +1. Follow-up actions cannot be generic; e.g. instead of “any Control Position technique,” you must specify “Control Position to roll him over to prone while spinning my orientation to match his.” When specifying what you are setting up, you do not need to declare what further Setups you will perform – you are only required to look one step into the future! You may perform Setups for multiple actions at a time; declare them individually and add the penalties together.

You may hold on to a Setup bonus until you Transition to a new grip, perform a new Setup, or let go. For example, if you have established a Setup for Wrench Arm, you may keep using the bonus each turn you wrench, but you lose it once you perform another Setup or Transition.

You can perform a Setup with any grab, Grabbing Parry, or defensive grappling roll. Furthermore, you can perform a Setup with a basic Grappling Contest attack, based on your best grappling skill.

Setups can be declared for specific defensive techniques, like “Pin Arm,” “Control Step to keep him here,” and “resist Escape attempts.” They *cannot* be declared for generic defenses.

Escape is at +1 if you are naked or wearing skin-tight clothing, +2 if you are also sweaty (at least 1 FP lost), or +3 if you are oiled.

If, on your own turn, you choose to drop, from standing to a low posture or from a low posture to a ground posture, gain +1 to all Escape attempts that turn. If you drop from standing to a ground posture, gain +3. These movements may resemble tumbling or breakfalling, and let you base the contest on Acrobatics or Breakfall.

ARMED GRAPPLING

You can grapple using a weapon. This is at Reach C, regardless of the weapon's length. When using a rigid weapon, your grappling skill is limited to your weapon skill, unless it is a simple Reach C stick, such as a *yawara* or *kubotan*. If you keep only one hand on the weapon, treat the ensuing grapple as a one-handed grapple with a further -1.

Any rigid, Reach C weapon, by giving a hard point of contact, gives +1 to wrenching and constriction techniques except Wrench Spine. A rigid, Reach 1 or longer weapon adds leverage, which gives +2 to wrenching and constriction, except +1 to Wrench Spine. If the weapon is edged, you may do cutting damage with wrenching and constriction techniques.

Any time you roll a Grappling Contest with an edged weapon and are holding it with anything more than one hand, roll against DX; if you fail, you do thrust-2 cutting damage to the extra hand/limb.

When grappling with a flexible weapon – including a cloak, whip, kusari, or an improvised weapon like a belt or towel – your grappling skill is *not* limited by the weapon skill. You have -2 to all Transitions and grappling techniques, except +1 to Choke and +2 to resisting Escape. A proper garrote gives an additional +1 to Choke and resisting Escape; a wire garrote causes Choke to do cutting damage; this replaces the normal garrote rules.

Armed Grab

Hard

Default: prerequisite skill-2.

Prerequisite: any grappling skill or appropriate Melee Weapon skill; cannot exceed prerequisite skill.

To grab an opponent at Reach C with a weapon, roll against Armed Grab, based on the appropriate weapon skill. For Reach C sticks or flexible weapons, you may base it on your grappling skill. With a flexible weapon, you must grab with at least two hands; you can Transition to a one-handed armed grapple afterward. See *Entangle* (**GURPS Martial Arts**, p. 71) for an alternative.

ABOUT THE AUTHOR

Ken Clary is a software engineer who's been roleplaying since the late 1980s. He began practicing a style of jujutsu in 1996 and teaching it in 2001. He's also an avid movie-watcher, LARP participant, and amateur game designer.

Grappling Example

Dr. Vesuvius is attempting to get to his control panel, while the dashing James Lestrade is trying to stop him! Neither is armed, and both have a distaste for fisticuffs. Dr. Vesuvius has SM 0, DX 10, ST 10, and only enough combat training to keep his head in a fight. James has SM 0, DX 11, ST 12, and Judo-13.

Turn 1

James grabs the Doctor's torso and arm with both hands. The location penalty for the combined grapple is -2; the arm is the hardest to grab at -1, and adding a single other location is -1. James rolls a 10, succeeding, and Dr. Vesuvius fails his Parry attempt.

Dr. Vesuvius takes a Move maneuver to make his way to the panel. James may try to stop him with Control Step, at no penalty due his torso grapple. This is a Grappling Contest between Vesuvius' 20 (DX 10 and ST 10) and James' 25 (Judo-13 and ST 12). James rolls 13 under his target, while Vesuvius rolls 9 under his target; thus, James wins, and Dr. Vesuvius goes nowhere.

Turn 2

James wants to get Vesuvius immobilized on the ground quickly. He performs a Takedown, tipping Vesuvius onto his back, reaping the leg for +1, dropping to a crouch, and holding on. He also wants to set up a Transition for his next turn, so he takes a -4 penalty to gain a later +4 bonus. He must specify the full technique he is setting up; he chooses Transition from a torso and arm grapple to a neck and arm grapple. His Takedown is a Grappling Contest between his 21 (Takedown-12, +1 for the reap, -4 for the Setup, and ST 12) and Dr. Vesuvius' 20. James manages to win the contest, and he immediately succeeds at a DX roll to not fall over from his reap. Vesuvius is now lying face-up while James is crouching.

Dr. Vesuvius makes a feeble attempt at punching with his free hand. He is using is off hand for -4, and is lying down for another -4, and he misses.

Turn 3

James Transitions from his arm and torso grapple to an arm and neck grapple; the one new location gives a -2. He also tries a -4 Setup for a Control Position technique (declared for flipping Vesuvius over to prone). James' side of the contest is at 21 (Judo-13, -2 for low posture, -2 Transition, +4 previous Setup, -4 new Setup, and ST 12); Vesuvius' side is 16 (DX 10, -4 for ground posture, and ST 10). James wins the contest, successfully changing his grapple and setting up the Control Position technique.

Dr. Vesuvius desperately uses All-Out Attack to squirm in James' grip. This is a partial Escape attempt. He rolls against 20 (DX 10, -4 for ground posture, +4 for All-Out Attack, and ST 10), while James rolls against 23 (Judo-13, -2 for crouching, and ST 12). Dr. Vesuvius wins the contest with a margin of victory of 2, which he applies against James' Setup bonus, reducing it to +2.

Turn 4

James uses Control Position to turn Dr. Vesuvius over to prone. He rolls against 19 (Control Position-10, -1 for current neck/arm grapple, -2 for crouching, -2 for flipping his opponent's relative facing from front to rear, +2 for Setup, and ST 12), while Dr. Vesuvius rolls against 12 (DX 10, -4 for lying face-up, -4 for All-Out Attack, and ST 10). James wins again, and flips Dr. Vesuvius over.

Vesuvius tries to turn back to face-up, and James tries to stop him with Pin Torso. The doctor rolls against 12 (DX 10, -4 for prone, -4 against a rear opponent, and ST 10). James rolls against 22 (Pin Torso-13, -1 for neck/arm grapple, -2 for crouching, and ST 12). James is victorious, and Dr. Vesuvius again stays put.

Turn 5

James chooses a Wait maneuver: If Dr. Vesuvius tries anything with his other limbs, James will use Wrench Arm to put him in a world of hurt . . .

WHEN WE WERE VERY SMALL

BY MARK GELLIS

Literature is full of stories involving the tiny creatures that share our towns and cities with us, or live in the forest just beyond the places we have tamed. There exist numerous animated movies featuring heroes and villains who are either household pets, household pests, or furry little denizens of the outdoors. Mice are especially popular, for reasons that are sometimes difficult to fathom if one has ever had an infestation of rodents in one's home. And fantasy is full of small supernatural creatures such as the fair folk.

Here, then, are a few optional **GURPS** rules tweaks and suggestions for making these characters shine, plus guidelines for how to incorporate small beings (and animals) into the campaign.

*Can you wonder that
the People of the Hills don't
care to be confused with that
painty-winged, wand-waving,
sugar-and-shake-your-head
set of impostors? Butterfly
wings, indeed!*

– Rudyard Kipling,
“Puck of Pook's Hill”

THE HALF SOLUTION

GURPS, being generic and universal, should be able to handle such creatures, but there are a few difficulties when it comes to running very small characters. Intelligent cats and even intelligent squirrels are easy. The trouble begins with anything much smaller than this (e.g., mice, three-inch-tall sprites, etc.). In particular, such smaller creatures tend to be “bland” as far as their ST goes; humans can easily range from ST 8 to ST 12, but squirrel-sized characters are usually ST 2 and nothing else.

Probably the easiest way to handle this is to allow half-steps of ST at the small end of the scale. Unsurprisingly, each half-step of ST costs 5 points: ST 4.5 is -55 points, ST 3.5 is -65 points, ST 2.5 is -75 points, ST 1.5 is -85 points, and ST 0.5 is -95 points. This is a good fit with the general granularity of **GURPS** and permits the GM and players to model characters down to about SM -8 (that is, around 3” in height or length and weighing about 1/4 to 1/2 of an ounce). Conveniently, SM -8 is also roughly the same as “Fine” in the **d20 System**, for anyone who is trying to convert characters from that system over to **GURPS**.

The following table provides a breakdown of the important game mechanics for beings of ST 5 or less.

ST	Basic Damage	Basic Lift	Typical SM	Typical Weight
0.5	1d-7 th 1d-6 sw	0.05 lbs.	-8	0.25 oz.-1.5 oz.
1	1d-6 th 1d-5 sw	0.2 lbs.	-6	2 oz.-6 oz.
1.5	1d-6 th 1d-5 sw	0.45 lbs.	-5	7 oz.-15 oz.
2	1d-6 th 1d-5 sw	0.8 lbs.	-4	1 lb.-1.9 lbs.
2.5	1d-6 th 1d-5 sw	1.25 lbs.	-4	2 lbs.-3.3 lbs.
3	1d-5 th 1d-4 sw	1.8 lbs.	-4	3.4 lbs.-5.3 lbs.
3.5	1d-5 th 1d-4 sw	2.45 lbs.	-3	5.4 lbs.-7.9 lbs.
4	1d-5 th 1d-4 sw	3.2 lbs.	-3	8 lbs.-11.3 lbs.
4.5	1d-5 th 1d-4 sw	4.05 lbs.	-3	11.4 lbs.-15.6 lbs.
5	1d-4 th 1d-3 sw	5 lbs.	-2	15.7 lbs.-26.9 lbs.

As with other characters, HP is based on ST. The GM may optionally permit half-steps of HP; it simply costs 1 point per 0.5 HP. As damage is not measured in fractions, roll for unconsciousness and death once the total damage is a half point greater than the current HP.

Example: An adventurer who has ST 2.5 must start rolling vs. unconsciousness when he has lost at least 2.5 HP. Thus, 2 points of damage is not enough to render him unconscious. The hero only has to check for unconsciousness once he takes 3 points of damage, which will reduce him to HP -0.5.

Hopper: It's a bug-eat-bug world out there, princess. One of those Circle of Life kind of things. Now let me tell you how things are supposed to work: The sun grows the food, the ants pick the food, the grasshoppers eat the food . . .

Molt: And the birds eat the grasshoppers.

– *A Bug's Life*

The biggest advantage of half-step ST is that it allows the GM and players greater freedom in designing small characters. Among other things, it makes it much easier to distinguish between individuals who are all members of a small species. For example, consider a **GURPS Fourth Edition** update of **Bunnies and Burrows**. Without half-step ST, virtually all rabbits have ST 3. But by allowing half-steps of ST, some rabbits have ST 2.5, some have ST 3, and some have ST 3.5. This could make combat between individuals or other physical tasks a lot more interesting.

Another advantage of half-step ST is that ST 0.5 opens up a whole new horizon of small characters. In the current system, ST 1 is quite flexible, but it has its limits; a blue jay, chipmunk, or 7" living toy are about the smallest character that can be sensibly built with ST 1. But with ST 0.5, many of the favorites from fantasy and children's stories become playable: small birds (such as finches, wrens, sparrows, and hummingbirds), bats (little brown, big brown, and vampire), mice, many typical frogs and toads, and 3" to 5" humanoids like stand-in-the-palm-of-your-hand flower fairies. For those interested in somewhat creepier characters, ST 0.5 also covers arthropods such as giant water bugs ("toe-biters"), giant centipedes (such as the 10" or 12" ones you find in places like Australia), tarantulas, and some of the larger species of scorpion. As a final possibility, ST 0.5 allows creation of immature members of species

that normally have ST 1 or ST 2; for example, a young robin can be modeled with ST 0.5.

VERY SMALL CHARACTERS IN THE CAMPAIGN

Some common personality types in stories featuring tiny heroes (and villains) include:

- The *bravado*, who is aware of his size and overcompensates for it by being aggressive – sometimes even foolhardy. Reepicheep from the *Chronicles of Narnia* series is an example, although he usually has the skill to back up his bravado. Not everyone does, however.

- The *"baby"* or *"princess,"* the physically weak one who needs to be protected. Such a hero may still have other useful abilities; even in groups where everyone is human, the child who is a genius or has a special talent like psionic abilities often serves in this role.

- The *spy*, who is well aware of the limitations of his size, but is also aware that it provides him with many advantages. He might sneak into someone's purse or the back of his car without being noticed, observe the subject, and then slip away quietly so he can report back to the group.

- The *assassin*, who uses his small size to sneak into places. He strikes down enemies with venom or a weapon before they even realize their defenses have been compromised.

- The *practical joker*, who often does not do any real harm but who knows that his species is very scary to some people and enjoys finding opportunities to terrify them. Mice and tarantulas fit this character type well.

As another possibility, perhaps all of the heroes are relatively small. Heroes who lack brute strength will have to rely on their wits – and being tiny increases the chances for exploration.

Small Wars

Combat involving small characters has good news and bad news. The good news is that it is much harder to hit a character who is very small; a ST 2 crow, with SM -4, is a more difficult target to hit than a normal-sized human. In addition, small characters are also often able to find cover a lot more easily than large ones; a fire hydrant is pretty useless as cover for a person but offers almost total protection for a squirrel or a robin.

More (or Less) Than Half

It is possible to get even greater granularity by allowing *all* levels of fractional ST. Realistically, characters who weigh less than a quarter of an ounce (or smaller characters who are unusually strong for their size, such as hummingbirds) need something less than ST 0.5 to model them properly. Fractional ST costs 1 point per ST 0.1, and allows the GM and players to model characters down to about SM -12 (about 2/3 of an inch tall or long, and weighing roughly 1/500 of an ounce). It can also be used to add greater granularity for larger creatures; cats have an average racial ST of 4, for example, but Fractional ST would permit some individual cats to have ST 3.7 and others as ST 4.2.

Some aspects of Fractional ST are quite simple: HP and Basic Lift are calculated normally. However, Fractional ST requires a shift in scales to resolve combat, using a one-tenth or *deci*-scale. In short, treat ST, HP, and DR as 10 times their normal values for the purpose of resolving combat, so that a ST 0.7 mouse battling a ST 2.5 owl would be resolved as something akin to a ST 7 man fighting a ST 25 dragon. The complexities involved in detailing all of the implications of Fractional ST make a full discussion of this approach beyond the limited scope of this article, but it is mentioned here to allow the GM and players to experiment with it.

The bad news is that small characters really have to avoid taking damage. The extreme case is a ST 0.5 character: a single point of damage requires a roll to avoid death, while 3 points means death automatically. Even a ST 3 rabbit can be killed by things that would only inconvenience a human being. Tiny bodies should either avoid being hit in the first place, or invest in protection (such as a magical force field, if the setting provides it). Advantages such as Luck, Combat Reflexes, and Serendipity are also good forms of life insurance.

Finally, most small adventurers lack the raw strength to employ brute force attacks against larger foes. It may be very annoying to someone to have a sparrow fly into his face, but it is not going to kill him. Small characters normally have to rely on such things as trickery, poison, stealth, and magic. In other words, such characters offer players a terrific opportunity for roleplaying because – unless they have magic spells or superpowers providing an equalizer – their size requires them to think rather than simply charge in with guns a-blazing.

Even if exotic abilities aren't available, stealth and trickery can be more than enough to provide success. As an example, a sparrow *can* kill someone by flying into his face – if the target is standing at the edge of a cliff. Even if the sparrow also goes over the cliff, it doesn't matter; it can fly.

LEVELS OF REALISM

Playing an actual animal presents some real challenges to players. Animals are horizontal, lack fine manipulators, can usually vocalize but have no language beyond such sounds as barks and chirps, and have some significant limitations on the skills they can learn.

Smarts

A realistic but *intelligent* animal can be handled by buying IQ up to a reasonable level like 10 (or it could still be relatively low, such as 7 or 8, to model the concept that animals might be “slower” than their human friends even if they are sapient). Most such animals, except rapacious predators (that is, bad guys), lose Bestial [-10] and Hidebound [-5]. In other ways, they remain physically the same as other animals, with such disadvantages as Quadruped, Social Stigma, etc.

Mr. Pricklepants: Sunnyside is a place of ruin and despair, ruled by an evil bear who smells of strawberries.

Woody: Wh . . . ? Lotso?

Buttercup: The guy may seem plush and huggable on the outside, but inside, he's a monster!

– *Toy Story 3*

The Ground View

From a storytelling point of view, it helps to visualize how tiny eyes see the world. Assuming the average size of the adventurers is about 1' in height or length, any area will be increased by a factor of roughly 25. A 100' oak tree becomes a 50-story skyscraper. An actual skyscraper becomes a mountain or a city. Even the stereotypical hundred-acre wood becomes a significantly larger place for exploration, adventure, and treachery when one is the size of a robin or a squirrel.

Animal Personalities

Observing nature reveals that some creatures often make better villains than heroes because of their personalities. Blue jays tend to be thieves and bullies. Crows and foxes are morally neutral; they are not necessarily cruel, but they are opportunistic and selfish. Snapping turtles and predatory fish like pikes and muskellunges are well-known for their aggressive behavior and their stealthy attacks; whether they revel in their ability to slaughter smaller creatures is left to the GM. Constrictors are mostly just hungry, but they might also be cruel and sinister. Scorpions, rattlesnakes, and cobras are known to be retiring but easily irritated; they prefer to run and hide rather than fight, but they are ready to strike if they feel threatened. Black mambas, on the other hand, are infamous for their malicious tempers. Naturally, these are generalizations; individuals in a particular species with a bad reputation might be saints and individuals belonging to a species with a good reputation might be monsters or megalomaniacs.

Sounds and Words

Assuming that animals can talk to one another, they lose Cannot Speak [-15]. It becomes a 0-point feature with most (but not all) species; animals simply cannot speak human languages because of the physical shapes of their mouths and throats. If an animal can *understand* a human language, it has spoken fluency [1-3/language]; if it can also read a human language, it is literate [1-3/language]. In many cases, the simplest solution is to assume that animals communicate with their own version of the human language used in their region; they simply cannot speak to humans. Since this is now their native language, it costs no points. Other languages would be priced normally – a dog that can understand English *and* Japanese has to pay points for one of those languages.

For some good examples of how this kind of animal-oriented fantasy can be handled, read the novels of Rita Mae Brown.

Upright Antics

Some guidelines for anthropomorphic animals (e.g., furies) include:

- Drop Quadruped.
- Replace No Fine Manipulators with either Bad Grip or no disadvantage (that is, they have regular hands).
- Lose Horizontal [-10], as they can now stand upright comfortably and even walk around normally. Those who can drop to all fours to run simply have Extra Legs (Four legs; Temporary disadvantage, No Fine Manipulators, -30%) [4]; this may justify a level or two of Enhanced Move (Ground).

● Because anthropomorphic animals can usually speak normally, Cannot Speak [-15] disappears. If everyone in the world is an anthropomorphic animal, most adventurers will lose any Social Stigma they have; if it is a “cartoon world” that anthropomorphic animals share with humans (who are often unaware that animals are sapient, have hands, etc.), they might still have Social Stigma to represent how humans treat them.

● Anthropomorphic birds and bats are often able to use their wingtips as hands, although it is generally unclear why this actually works. (Bird- and bat-like demons from fantasy and horror stories often have this feature, too.) Anthropomorphic fish seem able to do the same things with their fins; the explanation for this would probably make an actual biologist’s head explode. Anthropomorphic snakes do not have any limbs, of course, but they are often remarkably adept at using their mouths and tails as hands. This sometimes involves Bad Grip, but not always.

MANY CREATURES, GREAT AND SMALL

The following table is provided as a quick reference for the GM and players who are considering small animals (and very small beings from fantasy) as characters.

Of course, lengths and weights are approximations; many species, particularly snakes, vary widely. In addition, in many cases, the SM is based on the length of the creature’s body, not the total length including the tail. This is because the tail of many animals is so thin compared to the rest of the creature, that including the total of its length would distort the calculation of the Size Modifier. In addition, turtles are assumed to be one SM larger than their length would suggest, due to their

*Sometimes we hear of the
capture of a pixy, and of its being
consigned to a place of security
whence it would be imagined
impossible for it to escape;
but the little prisoner generally
contrives to regain its liberty,
either through its custodian
relaxing his vigilance, or in
some totally inexplicable and
miraculous manner.*

– William Crossing,
*Tales of the
Dartmoor Pixies*

rounded bodies; this is backed up by how heavy they are compared to other creatures with similar lengths. This is also true for some fish and amphibians. As for snakes, it has been assumed (based on examples in the **Basic Set**) that, because of their serpentine build, the Size Modifier of a snake is two less than what would be suggested by its length. An 8’ snake will be SM -1, not SM +1; a two-foot snake will be SM -5, not SM -3.

The inclusion of a few creatures may be seen as “optimistic.” The boundary of ST 0.5, if employing the standard formula for calculating ST, is about 0.25 ounces. Most hummingbirds weigh less than this, and technically should not even have ST 0.5. However, hummingbirds are unusually strong for their size, and thus might qualify for ST 0.5 for this reason. In any event, the GM should feel free to eliminate any creature from the list with a weight below 0.25 ounces, require an Unusual Background for it to have ST 0.5, or handle it in any other manner he considers reasonable.

Small Creature Table

Creature	Typical Weight	Typical Length/SM	Typical ST
Humanoids			
Leprechaun	8 lbs.	24”/-3	4
Living Doll	1 lb.	12”/-5	2
Living Toy	2 oz.	7”/-6	1
Flower Fairy	0.25 oz.	3”/-8	0.5
Mammals			
Armadillo	17 lbs.	36”/-2	5
Badger	18 lbs.	28”/-2	5
Big Brown Bat	0.5 oz.	5”/-7	0.5
Blackbird	2 oz.	8”/-6	1
Bobcat	20 lbs.	36”/-2	5
Cat	10 lbs.	20”/-3	4
Chihuahua	5 lbs.	18”/-4	3
Eastern Chipmunk	3 oz.	6”/-6	1
Eastern Mole	2.5 oz.	6”/-6	1
Ferret	2.5 lbs.	20”/-3	2.5
Flying Fox (Fruit Bat)	2 lbs.	12”/-5	2.5
Gray Squirrel	1.5 lbs.	12”/-5	2
Green Monkey	8 lbs.	24”/-3	4
Hamster	4 oz.	6”/-6	1
Hedgehog	1.5 lbs.	10”/-5	2
Kangaroo Rat	3 oz.	6”/-6	1
Little Brown Bat	0.25 oz.	3”/-8	0.5
Meerkat	1.5 lbs.	12”/-5	2
Mink	2 lbs.	22”/-3	2.5
Mongoose	3 lbs.	16”/-4	2.5
Mouse	0.75 oz.	3”/-8	0.5
Opossum	10 lbs.	24”/-3	4
Otter	25 lbs.	36”/-2	5
Pekinese	10 lbs.	18”/-4	4
Porcupine	20 lbs.	24”/-3	5
Rabbit	3.5 lbs.	16”/-4	3
Raccoon	15 lbs.	24”/-3	4.5
Rat	10 oz.	10”/-5	1.5
Red Fox	15 lbs.	36”/-2	4.5
Red Squirrel	10 oz.	8”/-6	1.5
Scottish Terrier	20 lbs.	24”/-3	5

Small Creature Table (Continued)

<i>Creature</i>	<i>Typical Weight</i>	<i>Typical Length/SM</i>	<i>Typical ST</i>
Mammals (Continued)			
Shrew	0.25 oz.	3"/-8	0.5
Skunk	7 lbs.	18"/-4	3.5
Squirrel Monkey	2 lbs.	12"/-5	2.5
Vampire Bat	1 oz.	4"/-7	0.5
Weasel	8 oz.	12"/-5	1.5

Birds

Amazon Parrot	1 lb.	15"/-4	2
Bald Eagle	12 lbs.	36"/-2	4.5
Barn Owl	1 lb.	16"/-4	2
Blue Jay	3 oz.	10"/-5	1
Bobwhite Quail	6 oz.	10"/-5	1
Canary	0.5 oz.	5"/-7	0.5
Cardinal	1.5 oz.	8"/-6	0.5
Chicken	6 lbs.	14"/-4	3.5
Crow	1 lb.	18"/-4	2
Duck	2 lbs.	24"/-3	2.5
Eastern Screech Owl	6 oz.	8"/-6	1
Goldfinch	0.5 oz.	4"/-7	0.5
Golden Eagle	10 lbs.	30"/-2	4
Goose	10 lbs.	36"/-2	4
Great Horned Owl	3.5 lbs.	22"/-3	3
Hummingbird	0.1 oz.	3"/-8	0.5
Macaw	2.5 lbs.	30"/-2	2.5
Mourning Dove	4 oz.	10"/-5	1
Parakeet	1.25 oz.	7"/-6	0.5
Peregrine Falcon	2 lbs.	18"/-4	2.5
Pigeon	10 oz.	12"/-5	1.5
Raven	2.5 lbs.	24"/-3	2.5
Red-Tailed Hawk	2.5 lbs.	24"/-3	2.5
Robin	2.5 oz.	10"/-5	1
Ruffed Grouse	1.25 lbs.	18"/-4	2
Seagull	1.25 lbs.	18"/-4	2
Sparrow	1 oz.	6"/-6	0.5
Starling	2.5 oz.	9"/-5	1
Wild Turkey	20 lbs.	45"/-1	5
Wren	0.5 oz.	5"/-7	0.5

Reptiles & Amphibians

Black Mamba	3 lbs.	8"/-1	2.5
Boa Constrictor	18 lbs.	8"/-1	5
Bullfrog	1.5 lbs.	8"/-5	2
Common Chameleon	4 oz.	10"/-5	1
Common Toad	1.5 oz.	4"/-6	0.5
Copperhead	1.5 lbs.	36"/-4	2

<i>Creature</i>	<i>Typical Weight</i>	<i>Typical Length/SM</i>	<i>Typical ST</i>
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Reptiles and Amphibians (Continued)

Corn Snake	2 lbs.	48"/-3	2.5
Egyptian Cobra	2.5 lbs.	7"/-1	2.5
Garter Snake	6 oz.	24"/-5	1
Gecko	4 oz.	8"/-6	1
Green Iguana	6 lbs.	48"/-1	3.5
King Cobra	20 lbs.	15'/0	5
King Snake	2.5 lbs.	60"/-2	2.5
Leopard Frog	1 oz.	4"/-6	0.5
Painted Turtle	1 lb.	8"/-5	2
Snapping Turtle	20 lbs.	18"/-3	5
Timber Rattlesnake	1.5 lbs.	36"/-4	2

Fish

Bluegill	8 oz.	8"/-5	1.5
Largemouth Bass	1.5 lbs.	12"/-5	2
Muskellunge	20 lbs.	48"/-1	5
Northern Pike	10 lbs.	36"/-2	4
Trout	4 lbs.	12"/-5	3
Yellow Perch	8 oz.	8"/-6	1.5

Invertebrates

Camel Spider	2 oz.	6"/-6	1
Chinese Mantis	0.1 oz.	4"/-7	0.5
Coconut Crab	8 lbs.	16"/-4	4
Common Octopus	10 lbs.	24"/-3	4
Giant Water Bug	0.75 oz.	4"/-7	0.5
Goliath Beetle	2 oz.	4"/-7	1
Goliath Bird Spider	4 oz.	10"/-5	1
Hermit Crab	1 oz.	4"/-7	0.5
Prehistoric Dragonfly	1 lb.	18"/-4	2
Scorpion	0.75 oz.	4"/-7	0.5
Tarantula	1 oz.	4"/-7	0.5

ABOUT THE AUTHOR

Dr. Mark Gellis teaches professional communication, literature, and humanities, and advises a chapter of Delta Chi fraternity, at Kettering University. He lives in Flushing, Michigan, with his wonderful wife Sandra ("She Who Must Be Obeyed"), their lovely and talented daughter Elizabeth, and their beloved pets: Miss Daruma (a playful Shiba Inu), Miss Kiki (a playful gray kitten), and the elegant Miss Spock (who used to be the only pet in the house and who probably thinks she has died and gone to Kitty Hell). Dr. Gellis squanders much of his free time playing **GURPS** and computer games like *Harpoon*, reading pretty much anything he can get his hands on, and watching far too many old movies and far too much anime.

Our habitations, moreover, are small and we are but a weak people; we therefore apply for aid to you, inhabitants of the "consecrated eminence"; on you rest all our hopes and expectations; to you we look to receive the treasures of mind, while we shall esteem ourselves happy in gathering and bringing them before the public eye.

– Amherst College, *The Sprite*

EIDETIC MEMORY

EXTREME DAMAGE

BY DAVID L. PULVER

Many of my *GURPS* games focus on space opera, the military, or supers – or all three at once. In these genres, the protagonists often like to play with big toys, such as warships, tanks, mecha, and nukes. This has meant regularly dealing with ST scores, damages, and HP well above the norm for ordinary human-centered campaigns. This article discusses the problems I've encountered, and the solutions I've introduced.

INCREASED DAMAGE WITH SUPERHUMAN STRENGTH

A super-strong "brick" or giant robot should be able to punch out a tank. Sadly, while *GURPS* makes tanks tough – the T-72A in *GURPS High-Tech* has DR 1,165 on its front and DR 165 elsewhere – it is less forgiving of high-ST supers who pound on them. In terms of character points, Strength is an inefficient way to deal out punishment. Striking ST costs 5 points per +1 ST, but from ST 45 onward, 50 points buys only an extra 1d of damage. Ordinary ST is twice as costly. In contrast, Innate Attack buys a Crushing Attack that gets 1d crushing damage for every 5 points . . . Of course, ST can be used with all sorts of weapons, but it's debatable whether it's 10 times more useful!

Now, *GURPS Supers* does offer clever rules for boosting Strength to tank-crushing levels via Super-Effort, along with tactics for defeating vehicles, but they're rather involved in the interest of backward-compatibility. Super-Effort also requires special enhancements that alter character point costs.

An alternative is to just change the *Damage Table* (p. B16). If only damage over ST 20 is altered, it also won't affect normal humans (or many animals). As an optional rule, recalculate all ST 22+ thrust and swing damage using the following formula.

ST	Thrust	Swing
22+	(ST/2) - 10d	(ST/2) - 8d

Example: Atomic-powered super Tsar Bomba has ST 100 (1,000 points). Instead of a paltry 11d damage he now inflicts (100/2) - 10 = 40d. That's enough to punch through the side or top armor of a tank!

If using this option, the per-die damage bonuses for Brawling (+1/die) and Karate (+2/die) can be overpowering.

To mitigate this, consider capping them at +7 for Brawling or +14 for Karate.

KEEPING LARGE VEHICLES ALIVE

For vehicles, animals, and the like, Hit Points approximately scale with length (or the cube root of weight). This is a reasonable assumption, but there are a few problems. The worst is that massed, low-damage attacks are unusually effective if the target's DR is low. A craft eight times larger may carry eight times as many guns . . . but if its HP only double (the cube root of 8) while damage increases eightfold, it will be destroyed really fast, along with anyone inside it.

This isn't a problem when typical tanks or battleships fight, since they rely on a few heavy guns and armor strong enough to ignore massed small-caliber fire. However, it becomes troublesome in any situation where vehicles have either large numbers of weapons, or weapons with high rates of fire but poor armor. If a fighter plane is spraying its six to eight machine guns on a bomber aircraft, or an Age of Sail warship or pirate brig is unleashing a broadside of 20-40 guns, realistic results go out the window!

For example, consider two typical 74-gun ships-of-the-line from the Napoleonic era. Each vessel might mass 3,000 tons, for HP 720, and fire a broadside of about 30 guns – black powder cannon firing 18- to 32-lb. shot. A cannon ball inflicts about 6d×5 pi++ (105 damage) per hit. Each ship has about 2' of oak in its hull for DR 24, leaving an average of 81 damage remaining. At a usual engagement ranges of 50-100 yards, a crew with average skill levels, even with penalties for firing at sea and through black powder smoke, should still have about 1/3 of the shots hit. Thus, 10 cannon balls × 81 = 810 damage . . . enough to reduce each vessel to below 0 HP in the first turn of engagement! If HT rolls keep it going, a few more salvos and the ship is sunk.

Realistic? Not really. Age of Sail ships were often battered to the point of being unseaworthy, but doing this generally took a half hour or more of steady fire, even when a ship was caught between multiple opponents! Nor is this problem limited to wooden ships; they're just the most obvious example.

Machine gun fire against large but lightly armored vehicles produces similar unrealistic results. A heavy bomber, like a B-17, which in real life might withstand several attacks by a machine-gun-armed fighter, will instead be chewed up in moments. A man with a battle rifle can shoot a train to bits.

What's the solution? Hit Points can be arbitrarily increased, but that requires revising existing designs . . . and makes low-rate-of-fire, high-damage weapons like battleship cannon or tank guns unrealistically *ineffective*.

However, since the problem is largely one of piercing damage to large targets, there's another possible solution: the *Injury to Unliving, Homogenous, and Diffuse Targets* rule (p. B380). These are already designed to make unliving targets less vulnerable to small projectiles, allowing zombies, robots, cars, and ships to better absorb bullets. With some tweaking, they can fix the problem without affecting the rest of **GURPS**.

Extending this rule, *large* unliving targets (such as ships) can be made to take less damage from projectiles that inflict any type of piercing or impaling damage. For any target with SM +5 or more, the wounding modifiers are reduced as follows.

Piercing and Impaling Damage vs. Large Unliving Targets

SM	Pi-	Pi	Pi+	Pi++ or Imp.
Up to +4	x1/5*	x1/3*	x1/2*	x1*
+5-6	x1/10	x1/5	x1/3	x1/2
+7-8	x1/20	x1/10	x1/5	x1/3
+9-10	x1/50	x1/20	x1/10	x1/5
+11-12	x1/100	x1/50	x1/20	x1/10
+13 or more	x1/200	x1/100	x1/50	x1/20

* Standard wounding modifier for Unliving targets (see p. B380).

Homogenous Targets: The table also works for SM +5 or more Homogenous targets, but count down one row (to a maximum of SM +13 or more); e.g., a SM +5-6 Homogenous target is treated as if it were SM +7-8.

This change means that attacks on cars, small tanks, etc. (SM +3-4) are mainly unaltered, but if an Age of Sail ship (SM +7) is attacked, it can survive against cannon balls (pi++) for at least three times as long. Since it takes minutes to reload after each broadside, that will keep the battle from ending instantly! Similarly, massed machine gun fire against a bomber, ship, or a giant robot is similarly reduced in effectiveness.

HP AND WEIGHT: AN ALTERNATE APPROACH

In **GURPS**, the "typical" hit points for vehicles, animals, etc. are scaled to twice the cube root of weight (doubled for unliving things, etc.). This means they're proportionate to length and cross section. But during an early draft of **GURPS Basic Set Fourth Edition**, HP were scaled differently: average HP were about equal to $0.85 \times (\text{square root of weight})$, again, doubling for unliving, etc.). This scaled them with surface area, and meant that while a normal person of 150 lbs. would still have HP 10, the same as they do now, a 2,500 lb. unliving car has a full HP 85 (instead of the current HP 54) and a 3,000-ton

unliving ship would have HP 4,164 instead of HP 727. This makes big things much tougher, which can be a good thing if they're starships, giant robots, or dragons.

Why didn't this get used? Well, besides not scaling as neatly with length, it also makes large, normal animals too resilient. If normal racial HP for animals scales based on its weight using that formula, then a heavy warhorse ends up with HP 37 instead of HP 25. This may be too hard to kill! The reverse will happen for small animals: a cat ends up with only HP 3, perhaps a bit too weak.

However, for a game that emphasizes vehicle combat (for example, **GURPS World War II** or any space navy or giant robot setting) the original square-root based HP formula offers a simpler way than messing with Injury Tolerance to keep machines – and those who ride in them – alive and fighting for a longer period during combat. Using it for unliving or homogenous things (but normal HP for living things) may work!

TAMING EXPLOSIONS

As we've seen in the other two variants, HP and damage numbers in **GURPS** are often based on square or cube roots. Explosive damage in **GURPS** is similarly based on the square root of the explosive weight (see p. B415). That's partly accidental: an early playtest draft of *Fourth Edition* used square-root-derived HP, and explosive damage was scaled to it . . . and due to an oversight, left unchanged. (Actually, we did notice this before the book was finished, but when we considered altering it, we also reasoned wide-area blast would likely cause far more damage anyway, so leaving it as presented was justified.)

However, where the rule breaks down is with huge explosions. The damage curve means large conventional bombs and nuclear weapons do greater damage relative to their energy (and guns or beams) than they should. This is unnoticeable in most games, but problematic if a single bomb sinks a battleship – or if a giant monster, super, Ogre Mark V, or space dreadnought that should survive a small tactical nuke is vaporized by it.

To tame big explosions, change the damage on blasts involving 100+ lbs. explosive (more than any weapon in **GURPS High-Tech** except heavy bombs) to:

Damage = $6d \times \text{cube root of (weight of explosive} \times 80 \times \text{REF)}$.

Or, more conveniently for large explosives:

Damage = $6d \times 10 \times \text{cube root of (weight of explosive in tons} \times 160 \times \text{REF)}$.

Thus, a 100-lb. (0.05-ton) blast does the same damage, but 5-kiloton TNT equivalent blast (like a tactical nuke) inflicts a mere $6d \times 928$ instead of the current $6d \times 6,324$.

ABOUT THE COLUMNIST

David L. Pulver is a Canadian freelance author. An avid SF fan, he began roleplaying in junior high with the newly released **Basic Dungeons & Dragons**. Since graduating from university, David has written over 70 roleplaying game books. He is best known for creating **Transhuman Space**, co-authoring the **Big Eyes, Small Mouth** anime RPG, and writing countless **GURPS** books, including the **GURPS Basic Set, Fourth Edition**, and the recent **GURPS Spaceships** series.

TEN TWEAKS TO CUSTOMIZE COMBAT

BY T BONE

Your pot of favorite **GURPS** combat rules has been simmering for years. It's the perfect blend of ingredients, a stew that's hearty, wholesome, and . . . hmm, perhaps a bit *routine*?

The following 10 tweaks are spices for seasoning combat – nothing heavy or intense, just a dash of *this* and a pinch of *that*. They're fuss-free and won't clash with each other. Drop one, or a handful, into your next **GURPS** battle.

DUCK!

Ducking your head beneath a blow, or pulling a hand out of harm's way, is much easier than shifting your whole body in a split-second.

Tweak

Allow a +1 bonus on Dodge when the target is a mobile extremity: head, arm/hand, tail, antenna, etc. (but not body, or legs/feet supporting the body).

Options

- Allow the +1 bonus for the lower legs or feet on a Jumping roll. That's the classic "jump over the sword" move for swashbucklers atop tables!
- Increase the Dodge bonus to +2 when the face is the target, thanks to the natural flinch reflex. (If fight-stopping eye shots are too common in your game, this may help.)

MONSTROUS RESILIENCE

Getting knocked out in combat is everyday stuff for PCs. (It sure beats the more permanent alternative.) But by the rules, dumb monsters succumb to slumber just as easily; a towering Violet Annelid will likely pass out from wounds while *hundreds* of hit points away from sure demise. That can feel odd. Shouldn't mindless horrors roar and spit until the hero's killing blow, then promptly keel over dead?

The simplest solution: When a monster passes out, call it kaput! Either it obligingly dies, or the adventurers deliver the coup de grace. No worry.

That said, for a crunchy rule, try Monstrous Resilience.

Tweak

For "monsters" with racial IQ under 10:

- Multiply HP by (IQ/10) for death roll thresholds when HP is less than 0.
- Award a bonus of (IQ-10) on any roll to resist unconsciousness.

Example: A beast with HP 75 and IQ 4 uses its full 75 HP in combat until down to HP 0 from wounds, and then only $75 \times (4/10) = 30$ HP for death purposes. It rolls to avoid death at HP -30, -60, -90, and -120, before dying for certain at HP -150. At the same time, it gains a $(10 - 4) = +6$ bonus on rolls to resist unconsciousness.

The net result: more monstrous mayhem that's more likely to end in abrupt death.

Options

It's hard to say whether this is a good deal or bad for the monster; quicker mortality at negative HP is a downside, but passing out at a foe's feet is usually a death sentence anyway. As such, Monstrous Resilience could be an interesting 0-point feature for a low-IQ PC race!

DO-OR-DIE BULLET DODGING

While no one normal can evade bullets *Matrix*-style, **GURPS** lets anyone dodge gunfire by avoiding the weapon's perceived path of fire. This ability may be cinematically generous, but it's reasonably believable – and very welcome for keeping heroes alive!

That said, the mechanics don't offer the *feel* of leaping away from a gun muzzle. Targets nimbly check Dodge only when they know a bullet's attack roll is successful; otherwise, they stay put and blithely continue their own careful aiming or spell preparation. To generate proper panic under fire, try the following.

Tweak

When defending against gunfire, adventurers must announce a dodge (or other valid defense) *without* knowing the result of attack rolls.

In play, the GM switches from asking “The bullets will hit you; what do you do?” to asking “The bullets *might* hit you; what do you do?” With no way to selectively dodge bullets after they’ve left the gun, a target must react *immediately* to that threatening path of fire (probably disrupting her own aiming and spellcasting) – or stay defenseless and pray the bullets miss. Once the defender has decided what to do, the shooter checks or reveals the attack roll.

The result: nicely panicked reactions to gunfire (even wild suppression fire).

CAN’T-MISS RANGE

GURPS Third Edition awarded positive attack roll modifiers for Speed/Range under two yards, while Fourth Edition sets the maximum bonus at 0. The Third Edition bonuses were actually welcome and realistic in some situations, such as when rolling to shoot a lock at close range.

Tweak

Let the Speed/Range column mirror the Size column at all ranges (e.g., 1 yd = Size -2, Speed/Range +2).

Does that mean all fighters get bonuses by claiming close-range attacks? Nope! Assume that Fourth Edition’s maximum 0 modifier is a very reasonable limitation in normal combat: whatever the actual mechanics of a blow, an attacker can’t hit an active, moving target from an effective range closer than his own size (for a human, two yards and 0 modifier). The Third Edition-style bonus applies only in situations where getting up close is meaningful, such as shooting that lock or other stationary target.

While this rule won’t come up often, it can resolve some special cases that otherwise don’t play well.

DISTANCE AND DEFENSE

A melee attacker who needs to close a distance gap gives the defender an extra instant to react. Likewise, attacks in close combat come from a very short distance, offering scant time for reaction.

This effect is easy to game on a battle map – and carries a lot of combat implications.

Tweak

- If the attacker needs to Step or Move to get within striking reach, the target defends at +2.
- If the attacker begins his turn within striking reach (even if he chooses to Step or Move anyway), the target defends normally.
- If the attacker begins his turn in close combat and strikes in close combat (even if he then moves away), the target defends at -2.

This tweak aids defenders who maintain a safe distance, boosting attackers’ need to Evaluate and Feint before closing. The result: more “You go first!” circling before the clash. The rule also amplifies the advantage of a longer weapon, makes retreating more effective for those who continue backpedaling out of reach (but less attractive for those wanting to seize the offensive again), and makes close combat more of a roaring, all-out affair.

In short, it’s a fun adjustment that’ll have fans of tactics carefully watching their steps.

Options

Halve the above modifiers for a more moderate effect.

HURLING

As with any standard attack, a weapon throw has the hurler return instantly to a ready, defensive combat stance. That’s great for close-in fighting, but is all wrong for hammer-tossing athletes (or even spear-throwing warriors safely out of reprisal range).

Tweak

Allow All-Out Attack (Strong) with thrown weapons. This confers the normal effects on damage, active defenses, and Move, and gives a 1/3 bonus to Range (Half-Damage and Maximum).

Options

Let throws use Committed Attack (Strong) from **GURPS Martial Arts**, pp. 99-100. Game as written, and give a 1/6 bonus to Range.

Use Defensive Attack (**GURPS Martial Arts**, p. 100) for hasty snap throws. Game as written, but cut Range by 1/3.

For any throw, regardless of thrown object or attack type, add distance moved (Step, half Move, etc.) to Half-Damage Range, and twice that to Maximum Range. (For sports like the discus, treat a twirling routine as half Move.) Together with All-Out Attack (Strong) and Extra Effort, this option lets athletes and fighters alike shoot for real distance!

HE WHO HESITATES

Hesitating in combat is as natural as breathing, at least for unskilled combatants trying to “line up” a blow (or just work up nerve). Yet no player will ever announce, “I hesitate and fail to attack!”

To represent faltering, just use description: “Your attack roll missed. You looked for a chance to act but froze.” Yet that’s not always satisfying. By the rules, this “hesitating” fighter still somehow made his pole arm unready, fell down from a failed kick, or lost his javelin.

While those of us on the ground gaped, stunned by the unexpected maneuver, Mr. Crepsley lowered himself to chin level with the rail, then thrust away from it with all his strength.

– Darren Shan, Killers of the Dawn

Tweak

An attack roll that misses by 1 or 2 is a hesitation. The attacker gains nothing, but suffers no consequence of an attempted attack (lost ammo, etc.).

The exception: An attacker making an All-Out or Committed Attack doesn't hesitate; he attacks when he says he does. A failed attack roll is a normal miss.

Hesitation may happen often for novice fighters (or even veterans when attempting particularly difficult attacks). At the same time, combatants who would realistically never hesitate – say, a relentless zombie, or a frantic fighter with seconds to save a friend – won't do so, thanks to All-Out and Committed Attack.

SHIELDS AND SIZE

How much fighter does a medium shield cover? That would depend on how much fighter there is.

Tweak

Adjust shield DB by subtracting the wielder's Size Modifier. For the shield to be usable, adjusted DB must fall between 1 and 3. The wielder must also be able to use the straps or grips (use Armoury skill to retrofit and avoid penalties).

Example: A DB 2 medium shield acts as a DB 1 small shield for a SM +1 Ogre. A DB 1 small shield acts as a DB 3 large (and clumsy; see B547) shield for a SM -2 Halfling.

Options

Let a shield with effective DB 0 (but no lower) be barely usable, allowing a Block defense but no DB bonus (on any defense).

Let adjusted shield DB exceed 3. A DB 4 shield is *really* clumsy: -2 on all combat skills and Vision rolls, -1 on all defenses. A DB 5 or larger shield is a semi-portable *wall* for hiding behind (great against arrows, not so great against foes who can just step around the wall).

Let kneeling, sitting, or lying down make a defender effectively one SM smaller, for +1 DB. (Let crouching do the same *if he chooses* – which he might not, given the penalties for an adjusted DB 3 or larger shield.) Let “hunkering down” – squatting or curling up, head tucked in – make him *two* SM smaller, for +2 DB. That turns almost any shield into great cover – though the wielder will be unable to move, attack, defend, or even see what's going on!

GRAZES

Fictional (and real!) heroes often escape bloodied but standing when lethal attacks fail to hit squarely. The tweak below games this “flesh wound” effect in more satisfying detail than a low damage roll alone can offer, and even brings back a hint of the lost PD armor stat from Third Edition.

Tweak

An attack roll that just hits (success by 0) or a defense roll that just fails (failure by 1) is an off-center graze that connects weakly. Effects include

- Halve basic damage.
- Double any DR (for striking armor at a flat angle).

- Change piercing or impaling damage to cutting (similar to the Tip Slash from *GURPS Martial Arts*, p. 113).

Options

If the graze occurred on an attack roll, award a +2 bonus on active defense (as the blow is almost a miss to begin with).

If the attack has effects other than damage, halve effects or allow +2 on resistance rolls.

If *both* conditions for a graze are met (attack roll succeeds by 0, defense roll fails by 1), double graze effects: one-fourth basic hits, quadruple DR, +4 resistance rolls.

INSTANT ARMORY

Need cheap-and-dirty stats for an odd-sized axe or a giant's sword? *Low-Tech Companion 2* now offers a solution – but if that's not handy, let the omnipresent *Size and Speed/Range Table* (p. B550) fill in.

Tweak

1. Find the weapon weight on the Linear Measurement column of the *Size and Speed/Range Table*, reading yards as pounds. Read the accompanying Size as the bonus to thr or sw damage.

2. Set ST to 6 + weight if one-handed, 6 + (weight/2) if two-handed.

3. Round down where required.

*Example: A 13-lb. weapon uses the 10-yard row on the *Size and Speed/Range Table* to find thr+4 and sw+4 damage. Two-handed ST is 12.*

Options

Some further damage mods can better match *GURPS* stats (all cumulative):

- Unbalanced: +1.
- Thrust impaling sword, knife, or spear: +1.
- Swung impaling: -1.

Some further ST mods to better match existing stats (again, all cumulative):

- Unbalanced: +1.
- Thrust only: -1.
- Reach includes “C”: -1.

ABOUT THE AUTHOR

T Bone is an international man of the mundane, whose conceit that “T Bone” would be a cool handle predates George Costanza's. His gamer CV begins with *Advanced Dungeons and Dragons* and moves through *Hero System*, *Car Wars*, *Traveller*, and many more, with *GURPS* a long-time favorite. He's an owner of *Pyramid* #1 (and many hardcopy issues thereafter) and a dilettante game designer who enjoys tinkering with systems and testing new rules, especially related to combat and physical action. You'll find many of his homebrew additions for *GURPS* and other systems at T Bone's Games Diner, gamesdiner.com.

Interested readers can find additional notes and options at gamesdiner.com/ten-tweaks-for-gurps-combat. Should you drop by, let T Bone know how the tweaks are working out at your gaming table!

A DECK OF DICE

BY STEVEN MARSH

The core of the **GURPS** system uses three six-siders. It's as fundamental a concept as they come. So, let's shake the cage, and tweak that.

Central to the **GURPS** concept is the bell curve. A roll of 11 is *much* more common than a roll of 3 or 18. This is why systems that seek to replace core rolls with (say) a 20-sider result in something that feels decidedly un-**GURPS**-like; critical successes or failures that previously only showed up about 2% of the time would pop up at least 5% of the time with a 20-sider, and the mildly extreme rolls are just as likely as the die's average.

However, provided broad probabilities are kept the same, there's nothing "magical" about the use of dice. Perhaps the most intriguing possibility is the use of a deck of cards to replace the standard 3d rolls.

THE BASICS

The simplest way to set this up is to get a few hundred index cards. On each one, list one of the possible rolls of three dice (along with the total of the three, for ease of use), as shown on the table below.

Dice Card Table

1-1-1 (3)	1-1-2 (4)	1-1-3 (5)	1-1-4 (6)	1-1-5 (7)	1-1-6 (8)
1-2-1 (4)	1-2-2 (5)	1-2-3 (6)	1-2-4 (7)	1-2-5 (8)	1-2-6 (9)
1-3-1 (5)	1-3-2 (6)	1-3-3 (7)	1-3-4 (8)	1-3-5 (9)	1-3-6 (10)
1-4-1 (6)	1-4-2 (7)	1-4-3 (8)	1-4-4 (9)	1-4-5 (10)	1-4-6 (11)
1-5-1 (7)	1-5-2 (8)	1-5-3 (9)	1-5-4 (10)	1-5-5 (11)	1-5-6 (12)
1-6-1 (8)	1-6-2 (9)	1-6-3 (10)	1-6-4 (11)	1-6-5 (12)	1-6-6 (13)
2-1-1 (4)	2-1-2 (5)	2-1-3 (6)	2-1-4 (7)	2-1-5 (8)	2-1-6 (9)
2-2-1 (5)	2-2-2 (6)	2-2-3 (7)	2-2-4 (8)	2-2-5 (9)	2-2-6 (10)
2-3-1 (6)	2-3-2 (7)	2-3-3 (8)	2-3-4 (9)	2-3-5 (10)	2-3-6 (11)
2-4-1 (7)	2-4-2 (8)	2-4-3 (9)	2-4-4 (10)	2-4-5 (11)	2-4-6 (12)
2-5-1 (8)	2-5-2 (9)	2-5-3 (10)	2-5-4 (11)	2-5-5 (12)	2-5-6 (13)
2-6-1 (9)	2-6-2 (10)	2-6-3 (11)	2-6-4 (12)	2-6-5 (13)	2-6-6 (14)
3-1-1 (5)	3-1-2 (6)	3-1-3 (7)	3-1-4 (8)	3-1-5 (9)	3-1-6 (10)
3-2-1 (6)	3-2-2 (7)	3-2-3 (8)	3-2-4 (9)	3-2-5 (10)	3-2-6 (11)
3-3-1 (7)	3-3-2 (8)	3-3-3 (9)	3-3-4 (10)	3-3-5 (11)	3-3-6 (12)
3-4-1 (8)	3-4-2 (9)	3-4-3 (10)	3-4-4 (11)	3-4-5 (12)	3-4-6 (13)
3-5-1 (9)	3-5-2 (10)	3-5-3 (11)	3-5-4 (12)	3-5-5 (13)	3-5-6 (14)
3-6-1 (10)	3-6-2 (11)	3-6-3 (12)	3-6-4 (13)	3-6-5 (14)	3-6-6 (15)
4-1-1 (6)	4-1-2 (7)	4-1-3 (8)	4-1-4 (9)	4-1-5 (10)	4-1-6 (11)
4-2-1 (7)	4-2-2 (8)	4-2-3 (9)	4-2-4 (10)	4-2-5 (11)	4-2-6 (12)
4-3-1 (8)	4-3-2 (9)	4-3-3 (10)	4-3-4 (11)	4-3-5 (12)	4-3-6 (13)
4-4-1 (9)	4-4-2 (10)	4-4-3 (11)	4-4-4 (12)	4-4-5 (13)	4-4-6 (14)
4-5-1 (10)	4-5-2 (11)	4-5-3 (12)	4-5-4 (13)	4-5-5 (14)	4-5-6 (15)
4-6-1 (11)	4-6-2 (12)	4-6-3 (13)	4-6-4 (14)	4-6-5 (15)	4-6-6 (16)
5-1-1 (7)	5-1-2 (8)	5-1-3 (9)	5-1-4 (10)	5-1-5 (11)	5-1-6 (12)
5-2-1 (8)	5-2-2 (9)	5-2-3 (10)	5-2-4 (11)	5-2-5 (12)	5-2-6 (13)
5-3-1 (9)	5-3-2 (10)	5-3-3 (11)	5-3-4 (12)	5-3-5 (13)	5-3-6 (14)
5-4-1 (10)	5-4-2 (11)	5-4-3 (12)	5-4-4 (13)	5-4-5 (14)	5-4-6 (15)
5-5-1 (11)	5-5-2 (12)	5-5-3 (13)	5-5-4 (14)	5-5-5 (15)	5-5-6 (16)
5-6-1 (12)	5-6-2 (13)	5-6-3 (14)	5-6-4 (15)	5-6-5 (16)	5-6-6 (17)
6-1-1 (8)	6-1-2 (9)	5-1-3 (10)	6-1-4 (11)	5-1-5 (12)	6-1-6 (13)
6-2-1 (9)	6-2-2 (10)	5-2-3 (11)	6-2-4 (12)	6-2-5 (13)	6-2-6 (14)
6-3-1 (10)	6-3-2 (11)	5-3-3 (12)	6-3-4 (13)	6-3-5 (14)	6-3-6 (15)
6-4-1 (11)	6-4-2 (12)	6-4-3 (13)	6-4-4 (14)	6-4-5 (15)	6-4-6 (16)
6-5-1 (12)	6-5-2 (13)	6-5-3 (14)	6-5-4 (15)	6-5-5 (16)	6-5-6 (17)
6-6-1 (13)	6-6-2 (14)	6-6-3 (15)	6-6-4 (16)	6-6-5 (17)	6-6-6 (18)

Of course, instead of using numbers, it's entirely possible – and flavorful! – to draw actual dice on each card. However, for ease of play, it's a good idea to include the numerical total on each card as well.

There should be 216 cards total (one for each possible roll of 3d).

USING THE DECK

At its most basic, using the deck is straightforward: Simply draw a card in lieu of a roll. From a mathematical standpoint for one “roll,” using the deck is *exactly* the same as rolling the dice.

However, the interesting part comes over multiple rolls. Once a card is drawn, place it aside (for now, in a “discard” pile, but see the options on p. 35). It's impossible for that roll to come up again until the deck is shuffled.

This means that observant players will gain knowledge of what roles are more or less likely – or impossible! – based on what's gone before. For example, if the first four cards drawn are the 17s and the 18, then you know that critical failures are either unlikely or impossible (depending on what's being “rolled” against); it's a good time for heroes to try something risky!

CARD-COUNTING

To make use of this deck easier for players, it's recommended that cards be sorted as they're drawn into one of 16 piles based on the total. This lets someone quickly tell how many “rolls” of each number have been drawn already. The number of each total are as shown on this table.

Roll	Cards	Roll	Cards	Roll	Cards	Roll	Cards
3	1	4	3	5	6	6	10
7	15	8	21	9	25	10	27
11	27	12	25	13	21	14	15
15	10	16	6	17	3	18	1

Players can count any pile of drawn cards they want (although if anyone is slowing down the game too much, the group should pressure him into speeding up!).

SHUFFLE TIME

If using this variant, the other big question is, when should you shuffle?

To the Last

It's certainly possible to draw every card in the deck; it's easy and intuitive. However, this results in the last few “rolls” being near-certainly known by the players – and the absolutely last roll is a certainty! If a player knew that he was guaranteed

of getting (say) a critical success on his next roll, he may try actions he wouldn't normally attempt. (Even if the roll is more mundane, it can still lead to oddities where players are able to take *exactly* the right amount of extra time or prep work to ensure success.) Conversely, knowing that there are bad rolls coming soon might get the players to do trivial things to burn through those cards: “Hmm . . . the only remaining cards are two 15s and a 17? I *really* need to use my Hobby Skill now!” Because of these quirks, this option isn't recommended.

To the End of Now

Depending on how many rolls are typical, the deck might be reshuffled at the end of each scene. This is intuitive and fast (it's easy to reshuffle the deck while everyone's counting loot), but if only a few cards are drawn in a scene, it tends to dampen the advantages this system offers.

To the (X)

A more complex method is to draw until you only have a certain number of cards left. For example, you might draw the first 200 cards – re-shuffling once you get to 16. This is straightforward, but it's also slow to count cards in the undrawn deck. (It is, of course, also possible to eyeball it, reshuffling when there are just a few cards left.) However, this can be anticlimactic.

The Signs Are Right!

One interesting possibility is to re-shuffle when certain conditions are met. For example, the deck might be reshuffled once all six “triples” are drawn (1-1-1, 2-2-2, 3-3-3, 4-4-4, 5-5-5, and 6-6-6). As the triples are drawn, they might be placed near the deck – face-up – so folks know how close the deck is to being reshuffled.

The threshold number of triples required to shuffle the deck can also be varied; for example, the deck might be reshuffled upon getting five or even four of the six. Obviously, the fewer triples required, the sooner the deck is reshuffled.

Some variant of this option has the advantage that the odds are good (or even assured) that the two most “interesting” rolls – 1-1-1 and 6-6-6 – will come up. As a potential disadvantage, it is possible to go all the way to the end of the deck, especially if all six triples are required and the bottom card on the deck is a triple.

ABOUT THE AUTHOR

Steven Marsh is a freelance writer and editor who lives outside of Indianapolis, Indiana, with his wife and son. For more details about him, see his *Random Thought Table* on pp. 33-34.

“Okay, maybe this isn't such a stupid idea after all. I almost believe you're an MGM card dealer.”

Admiring himself in the mirror, Clouseau had to agree. The uniform was simple but attractive, almost elegant.

*– Marc Cerasini and Alice Alfonsi, **The Pink Panther Gets Lucky***

ARMOR REVISITED

BY DOUGLAS H. COLE

Ever since the first edition of *GURPS High-Tech* defined that 20d penetrates DR 70, which itself is the protection afforded by 1" of Rolled Homogenous Armor grade steel (RHA), *GURPS* has closely modeled reality. Defining firearms in this manner had obvious implications for armor. A bullet-resistant vest that would stop a .22 LR (Dmg 1d+1 pi-) and a .45 ACP bullet (Dmg 2d pi+), but not a 9mm (Dmg 2d+2 pi) or a .357 Magnum (Dmg 3d-1 pi) might be rated DR 8. That is enough to stop the anemic .22 LR 100% of the time, but allows the .45 ACP to penetrate a bit more than one time in four. In real life, that DR 8 vest will almost always stop that .45 ACP bullet *if it hits the armor squarely in the center*. Critical hits that halve DR (roll 4 or 17 on the *Critical Hit Table*, p. B556) and optional rules like *Hitting 'Em Where It Hurts* (*GURPS High-Tech*, p. 69) provide for armor with variable coverage.

When translating vehicles or personal armor to *GURPS*, armor ranked to be "effective" against a certain threat will stop the average rolled damage. Some players may object to the fact that rolling highly variable damage and applying it to DR results in potential injury when, in reality, only limited potential should exist.

However, this is substantially a nonproblem. Ballistic tests are usually "rigged" to be fair to the armor being tested (while still pushing the armor to its limit). While the National Institute of Justice provides guidelines for actively targeting potential weak spots, it also forbids shots closer than 3" from the armor's edges. Vehicle armor is notoriously variable, with odd angles, projectile traps, rivets, and welds compromising the slab-equivalence of an armor facing. For cylindrical armors such as personal vests, odd angles might greatly improve the effective thickness of the armor . . . or deliver a weak spot to the projectile. All of this can be subsumed – and it is – into a variable damage roll, even in very realistic games.

Even if a GM finds a personally satisfying solution to a perceived armor problem, this probably means an injury problem is lurking around the corner. Injury tends to be highly variable – which can be accounted for by critical hits and aggressive use of the bleeding rules (p. B420) for vitals hits. On the big bad end, damage from commonly available weapons in the range of 5d to 7d will cluster around their average damage. This is worse for heavy-caliber machinegun bullets: 90% of the time, that 7d+2 pi+ weapon will deliver penetration between 51 and 96 points. Further, it is impossible for an average person to be randomly struck in the torso by such a bullet in a way that fails to bring him below -HP (minimum injury is 21 points).

GURPS handles both penetration and injury fairly well. The "issues" observed above are the outcome of a decision that

strikes a balance between determinism and variability – simulation versus ease of play. The usual, believable, and realistic result for someone getting drilled in the chest by a .50 BMG is a messy demise. The "graze" result is for the lucky few.

What follows is a series of simple suggestions that widen the spectrum from deterministic to variable, for both injury and penetration.

*Joshua changed the subject by asking
Tad, "How did this John Doe die?"*

– Lauren Carr,
A Small Case of Murder

WEAPON DAMAGE

After a hit, damage dice are rolled to determine the quality of the hit. Thus, a 5.56×45mm bullet (Dmg 5d pi) will result in 5-30 points of potential penetration. *GURPS* firearms damage is proportional to velocity; modern weapons muzzle velocity varies hardly at all, and ±15% spread in penetration would be more accurate than the more than ±70% of the average actually present. For those who wish to represent weapons with more limited penetration variability, consider some of the following methods, which provide different scales of variability than the *GURPS* standard.

Fixed Penetration

The simplest option when dealing with an incoming projectile of fairly known velocity is to define the penetration as the average damage dealt by a weapon. A 9×19mm pistol (Dmg 2d+2 pi) would thus always do 9 points of penetration, while a .50 BMG with Dmg 7d+2 pi+ inflicts 49 points. Penetration of armor with fixed DR would be completely binary: a weapon can either penetrate, or it can't.

This is simple, but no more gratifying (and significantly less realistic) than too much variability. Real-world variation in the angle of an impact can have a (usually negative) impact on penetration, and variation in armor thickness, quality, and composition even within a single piece of armor or on a vehicle is usually smoothed out into a single DR value.

Critical hits account for some of this variation, but most will find completely fixed penetration frustrating. Even if this option is used, the GM should apply the suggestions in *Injury for Fixed Penetration* (below).

Partially Variable Penetration

One compromise is to have both fixed and variable components to penetration. The GM should decide how much variability each weapon type has. Melee hand weapons might roll their full spread of damage for penetration, while ranged muscle-powered weapons have a small fixed component, and firearms are recalculated to be mostly fixed. For example, allow $\pm 16\%$ penetration variability for firearms: roll 1d of *variable* penetration for every 6d damage, the rest being fixed at 3.5 points per die. A 6d rifle would be recast as 18+1d, while a 6d \times 9 cr ex cannon shell is rewritten as 157+9d cr ex. Barrier Blind ammunition uses a variation of this approach (see *GURPS Tactical Shooting*, p. 77).

Injury for Fixed Penetration

When using fixed penetration for weapons, and protection expressed as numbers rather than dice, it can break suspension of disbelief that every single time someone gets stabbed with a force sword through their power armor, the injury is exactly 18 points . . . no more, no less.

In this case, a viable option is to have behind-armor injury be variable, and thus risky. To generate the required fear, take the penetrating damage, divide by 3.5, and roll that many *dice* of injury. So if a rifle with 21 points of penetration hits DR 14, roll 2d for injury instead of inflicting a flat 7 points.

Grazes

There are a lot of ways to increase the variability of injury to ensure a broad spread, but you still can't inflict less than 21 points of injury on 7d \times 2 pi+. The rules for *Flesh Wounds* (p. B417) allow spending a character point to reduce injury to 1 HP, which is one solution. Permitting heroes with Luck to invoke the *Flesh Wounds* rule instead of a reroll would be another.

For random graze results, the GM can decide that some combination of missed attack or successful defense reduces damage from the normal roll to some fraction of the usual roll. For example, a 7d \times 2 attack might be reduced to a maximum of 14 points damage (2d+2) . . . 1 point per die. This might occur on a critically successful defense roll, or on a hit roll that succeeds exactly or misses by 1, and such damage might be reduced point for point by the margin of success of a defense roll. The outcome is the same: allowing for the near misses and poor hits that *do* occur, if rarely, in real life.

ARMOR

Currently armor in *GURPS* is given a fixed value of Damage Resistance, subtracted from penetration to determine injury.

Armor as Dice

Penetration can be made more deterministic while retaining variability in injury by expressing protection not in points of damage, but in *dice*. Convert DR to dice by dividing by 3.5,

and rounding up to the nearest point. DR 10 converts to DR 2d+3, DR 20 to DR 5d+3. Converting DR larger than 50 or so to 6d \times N can speed play, but 5d \times 10 damage vs. DR 6d \times 8 DR is best resolved as dice: 50d vs. 48d results in 2d penetrating to inflict injury.

If damage is larger than DR, subtract the dice of armor from the dice of damage, and roll the rest as injury. For example, 7d \times 2 pi+ damage (14d pi+) vs. DR 10d (DR 35) would thus inflict 4d pi+ of injury. Calculate armor divisors as simply as possible: 7d \times 2(2) pi+ vs. DR 10d would have the armor reduced to 5d, allowing 9d pi+ to penetrate. For dice with adds, subtract dice from dice, and adds from adds: 5d-1 pi+ vs. DR 3d+2 would do 2d-3 injury.

As a final tweak: any time the dice of attack and armor are equal, don't resolve this as 0, but rather 1d-3, which is a 50% chance of penetration. Thus, 4d+1 pi vs. 4d-1 would have the dice cancel to 1d-3, and the adds contribute +2, for a final roll of 1d-1 pi as injury.

Variable Armor

The same logic applied to weapons can be put to use on armor. While actually rolling *Armor as Dice* (above) would be unrealistic (too much variability) and add an extra roll to game-play (slow), allowing DR to have both a fixed and variable component can be interesting. Although the exact magnitude of the variability would be left to the GM, having DR as 2/3 fixed and 1/3 variable will allow for both "unfortunate" penetrations and lucky saves, but prevent puny attacks from punching through while permitting a proper degree of overmatch. Thus DR 30 might turn into DR 3d+20 instead of DR 8d+2. Applying the subtraction style of *Armor as Dice*, you need at least 6d+3 damage to have a chance to penetrate, the odds of a 9d attack penetrating (9d - 3d-20 = 6d-20) are slightly better than 50%, and a 6d \times 2 attack (roll 9d-20 for penetration) will be 98.5% successful.

Any time some or all of the penetration damage is constant, it's recommended that the suggestions in *Injury for Fixed Penetration* (above) are implemented as well.

PARTING SHOT

The *Armor as Dice* mechanic in particular delivers fairly satisfying results with a minimum of disruption to existing rules or game play speed. It offers fast resolution of successful attack by providing instant judgment on whether a hit penetrates, and moves directly to the calculation of injury.

ABOUT THE AUTHOR

Douglas H. Cole has been role-playing since 1981, and playing *GURPS* since 1988. He has been an active playtester for both Third and Fourth Editions, and acted as lead playtester for *GURPS High Tech* and *GURPS Tactical Shooting*. He is an avid target shooter and movie-watcher, enjoys postponing woodworking and home improvement projects, and is an inveterate *GURPS* rules tinkerer. Douglas has earned two doctorates: a real one from Northwestern University in Materials Science and Engineering, and a cool one in *GURPS* Ballistics from Illuminati Online University. He currently lives near Minneapolis, and manages a thin-film coating development group for a hard-disc-drive company.

RANDOM THOUGHT TABLE

I NEVER META-RULE I DIDN'T LIKE

BY STEVEN MARSH, *PYRAMID* EDITOR

Until the “Handsome, Wealthy Men with Unimaginable Power” issue comes along, this might be the issue I’m least qualified to contribute to.

That isn’t entirely fair. After all, like most handsome, wealthy men with unimaginable power, I’ve played *GURPS* for quite some time. However, I’ve generally been on the “roll the dice and see how pretty they look” side of things; given a choice between spending a few minutes looking up exact rules for a situation or winging it, I’ll usually choose the latter.

Still, I’m an inveterate tinkerer, and I’ll frequently tinker with things that ought to be left alone. Thus I tend to have lots of house rules and ideas, but – given my tendency to kludge on the fly to make things work – most of those aren’t fit for public consumption. (“That rule tweak broke these three things . . . but if we overlook this and game faster, you all probably won’t notice. Look out: *mummies!*”)

However, I’ve come up with a number of *meta-techniques* for house rules. I share those forthwith, in the hopes they might help someone else.

PART OF THE SOLUTION

The problem with most rules is that they generally break down to two categories:

- Those that help the PCs.
- Those that hinder the PCs.

Now, “help” and “hinder” are broad categories here. Obviously, rules that don’t directly affect the heroes but help the bad guys are – on some level – “hindering” the good guys. (And vice versa.)

Similarly, rules that seem to be neutral – applicable to either side – can actually help or hinder the heroes if improperly applied. For example, if the GM uses bleeding rules but only applies them to the bad guys, then that’s a perk for the heroes!

This may all seem obvious, but it’s important to keep in mind. Why? Simply because players are usually much better at remembering options that *help* their heroes than *hurt* them.

Now, I don’t think this is necessarily intentional. In the heat of the game, it’s entirely possible for players to just forget (with or without air quotes) bad things that happen to their heroes. Still, it can greatly skew the effect of house rules; if bleeding rules are only imposed for NPCs – contrary to the intent – then the heroes suddenly have an advantage that may not be intended.

So, how should the group handle this quirk? Well, perhaps the easiest way is to get the players to do it.

Most players are pretty good about remembering things that give them advantages. Gamers don’t generally need to be reminded that their heroes have Danger Sense or Luck; they look for opportunities to use those powers all on their own.

However, adverse affects are different. Players aren’t generally looking for *just* the right time to invoke bleeding rules, crippling phobias, or deadly enemies against their heroes. No, that’s why most GMs need to make sure they’re aware of the PCs’ disadvantages;

So how do you get the players to remember negative rules with the same zeal they remember positive developments?

Simply put: Bribery.

Whenever it comes time to award bonus character points (or whatever passes as hero-building rewards in a particular RPG) to my groups, I generally reserve one point for general “being a force for good.” That’s for the players . . . not the heroes.

Being a force for good is a broad designation, but it means anything that helps make the game enjoyable or more challenging (in a good way) for everyone. In my games, anyone who points out something detrimental to their heroes generally assures they get their force-for-good point for the session.

However, one “carrot” per session might not be enough to keep players on their toes, and it helps if the reward is immediately after the player acts against his best interests.

Unfortunately, handing out character points like candy corn doesn’t really work with *GURPS*, unless you want the heroes to be bench-pressing buildings after a few adventures. So, really, you need to come up with some other reward.

Good candidates include HP, FP, Luck rerolls (everyone has Luck, right?), or character points that can only be spent on specific effects (such as “flesh wounds” – p. B417). The specifics are up to the GM . . . that’s why this is a *meta-technique*!

When You Lose, We All Win

If you’re looking for a good reward for making the game better, why not have a communal “pot” that’s a reward? For example, let’s say that – each time a player points out a rule or effect that’s detrimental – a chip gets thrown into the center of the table. Any player can remove one (or more) chips as an “extra” Hit Point as needed.

The communal aspect gives players an incentive to “help” the group by working against it and bringing up rules that hinder it; after all, it’s easier for one player to justify reminding the GM about a negative rule that affects another player if everyone has the opportunity to benefit from it later.

“REMEMBER THAT TIME WE WERE BULLETPROOF?”

One of the problems with rules tweaks is that you generally only have a chance to test them “in continuity.” If it turns out the rules don’t work as expected, this can mean that strange results are a part of the history of the game (which, in an on-going campaign, can be annoying).

For example, one time I changed the style of dice rolled in *In Nomine* (from six-siders to 10-siders). This wasn’t a huge problem. I also altered the extreme results (the “1-1-1” and “6-6-6” results, in the original system). This *was* a huge problem. Or, more accurately, in the continuity of our campaign, everyone remembers the time when there was more divine and infernal intervention in one adventure than in entire months of gaming. We came to think of it as the time that Heaven and Hell were micromanaging to the extreme.

Since then, I’ve tried to devise ways to insulate my wackier house-rule ideas from the rest of continuity. It’s actually fairly easy to do; all you need to do is come up with a logical reason for the new rules introduced to be somehow “separate” from previous material.

For example, let’s say you want to try out the *Armor Revisited* rules (pp. 31-32). If you’re not sure what effect they’ll have in the campaign, it’s safest to draw attention to the fact that armor may seem different. Perhaps the heroes are hired to test some new armor prototypes (similar to their existing fare, but . . . y’know . . . different). After the adventure is over, if the armor rules worked as expected and everyone likes them, then simply keep using them – with or without continuing the justification of the prototype armor. If the rules were wonky and ineffective (and no one liked the rules), then the heroes can go back to the armory and say, “Well, that didn’t work! Please make the check out to . . .” If the armor rules were *too* effective, then the GM can come up with whatever justification is necessary afterward to keep the armor from being used again. (“It turns out the armor, while incredibly effective, also tends to disintegrate after one outing – making it cost prohibitive for

continued adventuring.”) Regardless, since the heroes – and players – knew that the armor was “different” going into the adventure, there’s insulation should the rules prove unsuited for the campaign.

Again, this is meta-advice, but here is some more broad suggestions.

Magical Rules or Tweaks

- The heroes are transported to a strange land where nothing is as it seems.
- Something is awry with the flow of magic in the land. The sages say it’s probably nothing to worry about.
- The eldritch blast that washed over the heroes at the end of the last adventure seems to be having some kind of strange effect on their magical abilities.

Combat Rules or Tweaks

- The heroes are forced to compete in a gladiatorial arena, with new and unfamiliar weapons.
- The PCs are transported to the realm of dreams. It seems so real, yet so . . . *different*. And something here wants to fight.
- The alchemist wants the heroes to test a brew that will (hopefully) augment their martial abilities. It should be temporary.

Transportation Tweaks

- This vessel promises to revolutionize its mode of travel. Will it live up to the hype?
- The weather has gotten uncharacteristically strange in this region. There’s little hope but to ride it out – and hopefully everyone will live to tell an interesting tale.
- Someone close to the heroes wants to test a new form of fuel/sail/drum-beating method.

Broad or Core System Tweaks

- Today is an odd astrological conjunction. Fishmongers issue omens, and soothsayers tell the heroes to expect the unexpected.
- This uncharted isle is much more magical than back home. Rumors say that a secret lies here that could affect the whole world. Are they true?
- The heroes all awaken in an odd locale, with minimal gear. All of them have mysterious tattoos that seem to have a life of their own. Can they get rid of the markings? Will they want to?

With a bit of forethought, even the most disruptive or experimental rules tweaks can be introduced to a campaign without tearing the whole thing apart. Be like other handsome, wealthy men with unimaginable power – tinker and have fun!

ABOUT THE EDITOR

Steven Marsh is a freelance writer and editor. He has contributed to roleplaying game releases from Green Ronin, West End Games, White Wolf, Hogshead Publishing, and others. He has been editing *Pyramid* for over 11 years; during that time, he has won four Origins awards.

ODDS AND ENDS

DICE DECK VARIATIONS

With a deck of cards like the one in *A Deck of Dice* (pp. 29-30), a number of interesting variations can be used.

Good, Bad, Maybe?

By using color-coded index cards, it's possible to provide information on a "roll" before the card is drawn. For example, you might use green index cards for 3-8, red cards for 13-18, and white cards for the rest. In this way, the player might know whether the next roll is generally good or generally bad. Alternatively, the GM might keep the deck hidden normally, and only permit the players to see the color of the top card if the skill he's rolling against is nondefault or above a certain level. This would provide an additional bonus for players who are well-skilled – and they may not *care* that the next "roll" is red!

Perks for Me!

It's possible for the GM to make any number of perks available to adventurers in campaigns that use this system.

Oddsmaker

In a game where players aren't allowed to count drawn cards, you are permitted to do so whenever you want.

Slatecleaner

Once per scene, you can reshuffle the deck.

Bottom-feeder

Once per scene, you may draw from the bottom of the deck. (This is most useful for games where colored cards are used.)

Other Rolls

GURPS uses a number of other rolls. How do those intersect with the deck?

- *For rolls of 3d:* Use the deck! (Obviously . . .)
- *For rolls of 1d or 2d:* Draw from the deck, then only use the first one or two numbers on that card, as needed.
- *For rolls of more than 3d:* When you need a fistful of dice – for example, when rolling lots of damage – you should generally just use dice. However, you can use the deck for these rolls as well: Draw one card for every three *full* dice of damage. If the damage dice don't divide evenly by three, draw one more card and only use the first one or two numbers, so that the total number of values shown equals the number of dice needed. For example, if you need to roll 11d, draw three cards, then draw a fourth card and use the first two numbers shown on it.

MURPHY'S RULES

BY GREG HYLAND



Some of these additions are highly realistic while others are extremely cinematic, but they're all optional.

– **GURPS Martial Arts**

ABOUT *GURPS*

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