

# PYRAMID<sup>®</sup>

Issue 3/44 June '12

## ALTERNATE GURPS II

### THE LAST GASP

by Douglas H. Cole

TACTICAL MASS COMBAT

by David L. Pulver

COLORLESS GREEN IDEAS

SLEEP FURIOUSLY

by Roger Burton West

FROM SKILLS TO ADVANTAGES

by Sean Punch

SURVIVABLE GUNS

by David L. Pulver

ABSTRACT WEALTH

by Jason Brick

# STEVE JACKSON GAMES

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# CONTENTS

FROM THE EDITOR .....	3
THE LAST GASP.....	4
<i>by Douglas H. Cole</i>	
FROM SKILLS TO ADVANTAGES .....	14
<i>by Sean Punch</i>	
COLORLESS GREEN IDEAS	
SLEEP FURIOUSLY.....	18
<i>by Roger Burton West</i>	
EIDETIC MEMORY:	
TACTICAL MASS COMBAT.....	24
<i>by David L. Pulver</i>	
ABSTRACT WEALTH .....	30
<i>by Jason Brick</i>	
RANDOM THOUGHT TABLE:	
A NICHE TO SCRATCH.....	33
<i>by Steven Marsh, Pyramid Editor</i>	
ODDS AND ENDS .....	35
<i>featuring Murphy's Rules</i>	
APPENDIX Z: SURVIVABLE GUNS.....	36
<i>by David L. Pulver</i>	
ABOUT GURPS.....	38



## 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

COVER ART  
*Keith Parkinson*

INTERIOR ART  
*Greg Hyland*

# IN THIS ISSUE

For anyone who's ever wanted to turn his gas-powered car into an electric, install Linux on a toaster, or turn something cool into something *cooler*, this issue is dedicated to your experimental spirit. This month, *Pyramid* is devoted to "alternate **GURPS**" – optional new tweaks, systems, and expansions to take your game to brave new lands.

Many fight scenes have an ebb and flow to them that makes them exciting. Bring those waves of excitement to your game as you fight to *The Last Gasp*. New options for fatigue make it riskier to reach your limits, and a new system lets you track exactly how hard you're pushing yourself each second.

Discover how you can add limited cinematic feats to your realistic campaign by going *From Skills to Advantages*. Sean Punch, the **GURPS** Line Editor, describes the process and offers 16 examples, plus tips for converting spells.

When communication is essential to your campaign, you need to find out why *Colorless Green Ideas Sleep Furiously*. Get an alternate skill-based system for using and learning languages, including a table that shows the relationships between over 160 of modern Earth's most commonly used languages.

Turn **GURPS Mass Combat** into a war game with *Tactical Mass Combat*, by that popular supplement's author, David L. Pulver. This month's *Eidetic Memory* offers rules and tables to get the battle started with two players – then skip to *Odds and Ends* for suggestions on adding more participants!

If you prefer to save your bookkeeping savvy for tax time but still want a way to track your **GURPS** cash, you'll want to learn how to *Abstract Wealth*. With one roll on your new Wealth attribute, this issue might pay for itself! (Figuratively . . .)

Is a firearm *really* two to three times more effective at killing with a chest wound than a sword or axe to the same area? If you have your doubts – or you know some heroes who'd prefer that answer be "no" – check out *Appendix Z*, where David Pulver, co-author of the **Basic Set**, offers a suggestion for *Survivable Guns*. It even includes a table of sample weapons that work this tweak!

This issue's *Random Thought Table* lays down a new perk to ensure everyone in the party gets a day in the sun, while *Murphy's Rules* mixes terrestrial pharmacology and alien physiology for *big* laughs!

You've got the cutting edge of experimental **GURPS** innovation. Be sure to wear your lab coat and *have fun!*

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# FROM THE EDITOR

## FROM THE EDITOR

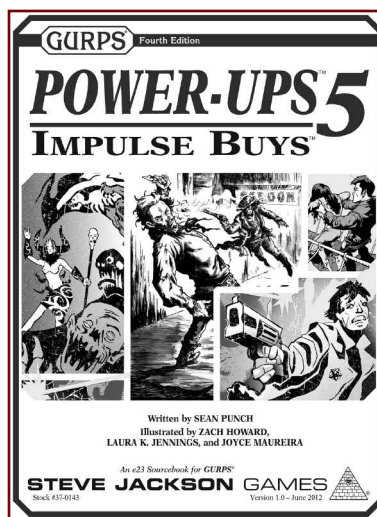
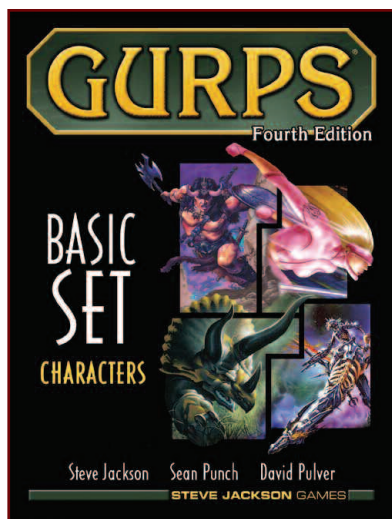
Each new game is an opportunity to reinvent the world . . . sometimes more literally than others. It's like a blank slate – what bits from column A will you be using? What do you want from column B? Fortunately, for those who like their options – and that's most of us – *GURPS* is happy to help.

This month, *Pyramid* offers some awesome possibilities to *really* shake things up. The revised possibilities of Fatigue and the introduction of Action Points (pp. 4-13) lets you make each encounter a tense race to see how gets tired first . . . and become truly terrified of robots and zombies again. New language rules (pp. 18-23) let you add dynamic depth to your communicative capabilities. The expanded *GURPS Mass Combat* options (pp. 24-29) allow you to go from the abstract to the concretely tactical. Revised purchasing possibilities (pp. 30-32) make it quick and *fun* to fling around cash. And there's more; we're not even going to mention one iota of the radical character-creation options (pp. 14-17) penned by Sean Punch. (Whoops . . .)

The right radical rules option can be just what you need to spark something spectacular in a new setting . . . or add pizzazz to a pre-existing campaign. This is a big toy box full of brand new goodies; play with them, smash them together, and have fun!

## WRITE HERE, WRITE NOW

Did you know that the first *Alternate GURPS* issue (*Pyramid* #3/34, for those of you keeping track) was suggested by someone on the Steve Jackson Games forums? Or that many other issue topics and article ideas have come directly from you, the reader? (Well, maybe not you, *specifically* . . . we're talking the abstract "you," here.) We read your mail! Feel free to send us private feedback and insight to [pyramid@sjgames.com](mailto:pyramid@sjgames.com), or join public the discussion online at [forums.sjgames.com](http://forums.sjgames.com). The only way we can get you what you want is if you ask for it!



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# THE LAST GASP

BY DOUGLAS H. COLE

**GURPS** offers two scales for how adventurers get worn down. *Injury* is quantified in Hit Points (HP) – physical insult that requires repair. *Weariness* is measured in Fatigue Points (FP), representing exhaustion and non-structural depletion of a body's resilience.

Many mundane activities cause FP loss, including long-distance movement, suffocation, lack of sleep, exposure to extremes of heat and cold, and carrying heavy loads, especially in combat. The adventurers may also expend FP by using *Extra Effort* (pp. B356-357) in or out of combat, as well

as to power magical spells or other exotic powers. It is quite possible to exhaust, cast, or work yourself to death (*Lost Fatigue Points*, p. B426)!

Fatigue Points are a valuable aid to narrative. Every resource-management challenge provides an opportunity for the GM and players to tell better stories.

Here is a more detailed look at fatigue, allowing finer distinctions as well an alternate take on recovering fatigue that makes expending them a more serious matter. These concepts are, of course, highly optional, and exhausting rather than exhaustive.

## LONG-TERM FATIGUE

“Regular” fatigue in **GURPS** as presented in the *Basic Set* is *long-term* fatigue. . . but there's really not much long-term about it unless you work yourself so hard you start to lose Hit Points (see *Painful Recovery*, p. 6). The term is used here to distinguish it from *short-term* fatigue, introduced as Action Points (see p. 7) in this article. To make fatigue scary, it has to last longer, with more immediate consequences impacting behavior. Spending FP should never be a trivial event.

### THE FACE OF ADVERSITY

In the standard **GURPS** rules (p. B328), having fewer than 1/3 of starting FP remaining is a serious condition that manifests very abruptly. When you drop to beyond 0 FP, fatigue can kill you, and you must make a Will roll to do anything besides talk or rest. In combat, you must make such a roll *every turn* if you select any maneuver but Do Nothing.

The following rules take a higher resolution approach to ability loss, shift some breakpoints around, and suggest *additional* Will and HT rolls to heighten drama as well as providing a reason why Joe Average might feel the urge to stop jogging before he reaches one of two FP breakpoints.

#### *Gradual Impairment Due to Fatigue*

When you have lost FP, you are clumsier, weaker, and not as focused as you are when fully rested. Therefore, instead of one breakpoint at 1/3×FP remaining, depletion causes a gradual reduction in *all* attribute scores – ST, DX, IQ, and HT. Other quantities impacted are mostly a secondary result of the reduction in attributes.

Each time you pass a breakpoint by spending more than starting FP/5, you suffer -1 to DX, IQ, and HT, plus a 10% reduction in ST (round normally). Thus, you take no penalties

if your FP are between full starting FP and 4/5×FP; you take -1 to DX, IQ, and HT, and -10% to ST from 4/5×FP down to more than 3/5×FP; -2 to your attributes and -20% to ST once you hit 3/5×FP; and so on. (Minimum 0 for all attributes.)

The reductions in DX, IQ, and HT impact all derived abilities. Skills go down one for one (influencing derived Parry or Block scores), and Basic Speed and Move fall by -0.5 per each -1 to DX and HT, also affecting Dodge. Will and Per are reduced along with IQ, making you less likely to notice things or persevere in the face of mental stress.

The reduction in ST will impact damage and Basic Lift. In addition to the Move reduction brought on by the decrease in DX and HT, lowering Basic Lift may increase your encumbrance level for carried gear, slowing you further!

*Exceptions:* HP represent mass and resistance to damage; they are based on ST, but should *not* be reduced due to ST loss. Likewise, FP are not double-dipped when HT is reduced due to exhaustion.

Upon reaching 0 FP, you will have suffered a four-fold reduction in Basic Lift, greatly increasing encumbrance level. Someone at 1×BL (no encumbrance) will face an increase to 4×BL, resulting in Heavy encumbrance, and a *further* reduction in Move by 60%!

The GM may wish to stop assessing penalties at this point. Further losses of FP will also *automatically* cause HP of damage – unless using the optional rules in *Hitting the Wall* (pp. 5-6). Additionally, the reduction in capabilities by this point are significant enough to persuade anyone but a desperate adventurer to pursue a nap. Continuing to give penalties for further FP drain will limit out at -10 to DX, IQ, and HT and a reduction of effective ST to zero. At this point, the average person can't move or think coherently, and probably can't even *use* any skill not bought to DX+4 or IQ+4.

The fact that penalties – though smaller ones – start accruing sooner than the abrupt change on hitting less than 1/3 of starting FP remaining is balanced by the fact that the equivalent amount of suffering doesn't occur until 0 FP. The GM may obviously tweak this (though the numbers may be less convenient) by altering the increment at which each penalty increases.

For ease of play, the thresholds for starting FP 8 to 20 are shown in the *FP Penalty Threshold Table* (below).

### High-Resolution ST Loss

Loss of ST due to fatigue is tied to the same thresholds as the "chunky" loss of the other attributes: -10% ST loss for each 20% of starting FP spent. For higher resolution, reduce ST by half the percentage of FP loss, *regardless* of whether other penalty thresholds have been surpassed. (Round to the nearest whole number.) A ST 14 (BL 39 lbs.) warrior who starts with 17 FP and spends 2 FP (reducing FP by about 12%) would take no penalties to DX, IQ, or HT, but would suffer a 6% reduction in ST, bringing him to ST 13. His new Basic Lift of 34 lbs. is a slight reduction, but enough to matter if his carried gear now places him on the other side of an encumbrance threshold. If that same warrior were at -3 FP (having spent 20 FP), he'd have spent 118% of his starting FP, and he would suffer -59% to ST!

### Persistence Is Futile

Losing an FP can be made traumatic – even if done voluntarily, the drain on your body's resources makes itself known. Your arms and legs feel leaden, and in the extreme, nausea or vomiting are possible!

To simulate this, the turn *after* voluntarily losing or spending a FP, or *immediately* after an involuntary FP loss (such as getting hit by a FP-draining spell or power), roll vs. Will+3.

If you fail this check, you feel the urge to stop doing whatever it is you're doing. If you're sprinting, you'll want to stop – or at least slow down. If you're fighting, you'll want to back off and recover some wind, maybe take a few Evaluate maneuvers, Wait instead of an aggressive attack, or perhaps look for an excuse to end the fight entirely. This can either be voluntarily roleplayed or mandatory, depending on genre expectations; this treatment is particularly appropriate for NPCs.

Training and practice help deal with this urge, and being in a life-threatening situation is certainly a motivator to keep going! Consult the *Training Bonus Table* (below); if you have a

*Relative Skill Level* (p. B171) of +1 or higher in the most relevant skill that you're using while spending or losing FP, add the training bonus to your Will when rolling.

You get an *additional* +5 to this roll if your maneuver is key to your survival (being in life-or-death combat should almost always qualify!) *and* you haven't failed a recent Fright Check. If this bonus is the only reason you make your roll, something uncontrollable and grotesquely biological might occur . . . but you *keep going*. Unhealed injury or pain *always* penalizes the Will roll to persist, and the GM might wish to uncap the IQ penalty for this roll.

Don't bother rolling if your adjusted Will is 17 or higher unless the consequences of failure are dramatically significant and the GM is fishing for the rare critical failure. A competent combatant with his weapon skill at DX+2 (+2 training bonus) will thus roll vs. Will+10 when expending FP in combat. If his Will is 7 or higher, he can do so freely. Only if he is tired, demoralized, or terrified will rolling for persistence in a combat situation be required.

*Example:* A sprinter with Running at HT+4 and a Will of 11 would normally roll vs. 17 upon losing his first FP: a base of Will+3, and an additional +3 for his relative skill at Running. This would be treated as a nuisance roll unless he's in a race and having him slow down is a key plot point. He may thus spend FP freely until he accumulates his first IQ penalty (reducing Will) after dropping below 4/5×FP, which will force him to roll vs. an adjusted Will of 16. If he were being chased by something horrible, he'd receive +5 for being extremely motivated to continue running unless he failed a Fright Check.

### Training Bonus Table

Relative Skill Level	+1	+2	+4	+7	+10
Training Bonus	+1	+2	+3	+4	+5

### Hitting the Wall

Instead of making it *automatic* that you lose HP at 0 FP or less, roll vs. HT+5 *any* time you lose FP. You still get your training bonus if you lose FP while performing a skill you're really good at, but you don't get any slack for being scared or in combat. On a failure, you suffer 1 HP of *injury*. On a critical failure, the injury is thrust crushing (minimum 1 point).

### FP Penalty Threshold Table

FP Remaining	IQ, DX, and HT Penalty	ST Penalty	Calculated FP Remaining															
			8	9	10	11	12	13	14	15	16	17	18	19	20			
Starting FP			8	9	10	11	12	13	14	15	16	17	18	19	20			
FP	0	0%	8	9	10	11	12	13	14	15	16	17	18	19	20			
4/5×FP	-1	-10%	6	7	8	8	9	10	11	12	12	13	14	15	16			
3/5×FP	-2	-20%	4	5	6	6	7	7	8	9	9	10	10	11	12			
2/5×FP	-3	-30%	3	3	4	4	4	5	5	6	6	6	7	7	8			
1/5×FP	-4	-40%	1	1	2	2	2	2	2	3	3	3	3	3	4			
0 FP	-5	-50%	0	0	0	0	0	0	0	0	0	0	0	0	0			
-1/5×FP	-6	-60%	-2	-2	-2	-3	-3	-3	-3	-3	-4	-4	-4	-4	-4			
-2/5×FP	-7	-70%	-4	-4	-4	-5	-5	-6	-6	-6	-7	-7	-8	-8	-8			
-3/5×FP	-8	-80%	-5	-6	-6	-7	-8	-8	-9	-9	-10	-11	-11	-12	-12			
-4/5×FP	-9	-90%	-7	-8	-8	-9	-10	-11	-12	-12	-13	-14	-15	-16	-16			
-1×FP	-10	-100%	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20			

Injury is *always* dramatically important, so treating this as a nuisance roll should be reserved for if your adjusted HT score is 19 or higher, *and* where real-but-annoying occurrences (such as a pro athlete spraining an ankle on a training run) can ruin the spirit of the game.

Since HT is reduced as you spend more and more FP, the chance of injury increases. Even if the GM decides to cap attribute loss at 0 FP for every other purpose, do *not* apply that cap to *this* roll: If you are at  $-2/5 \times \text{FP}$ , your HT roll to avoid injury is at an extra -7!

Even at  $-2/5 \times \text{FP}$ , a tired adventurer would only be rolling at HT-2, and accumulated HP loss may be fairly minimal for hardy types (most PCs). After reaching  $-1 \times \text{FP}$ , you *automatically* lose 1 HP, *and* must still make the HT-based roll described here for each FP lost. Combined with the rules for *Painful Recovery* (p. 6), such exertion will still put the poor sap on the injured reserve for weeks.

If you elect to roll to determine if FP depletion causes injury but are *not* using the rules for painful recovery – which greatly extend the time to recover from fatigue – lower the base roll to avoid injury from HT+5 to HT+1 to keep it risky.

*Example:* Sergeant Collins (HT 13, Running at HT+1) is sprinting under fire for cover – after spending more than two days in the field. He expends a FP, bringing him to 3 FP, and suffers -4 to HT (among other deleterious effects!) for hitting the threshold for  $1/5 \times \text{FP}$  remaining. He must check for injury. His Running skill provides a +1 training bonus, so he'll roll vs. an adjusted HT 15 ( $13+5-4+1$ ) or take 1 HP of injury.

## PAINFUL RECOVERY

In the *Basic Set*, FP are recovered at a rate of 1 FP per 10 minutes, or 1 FP per five minutes if you have Fit or Very Fit (p. B55). Modest FP losses – up to and including draining yourself to 0 FP – can be recovered by the time a *GURPS Dungeon Fantasy* party has finished looting the bodies and arguing over treasure! This understates how debilitating deep fatigue can be and how long it can take to recover.

This optional rule suggestion tweaks fatigue recovery from a linear to a somewhat geometric time scale, where FP take longer to recover depending on how many you have lost. Recovery from 0 FP to “fully charged” takes about two days, but recuperation from  $-1 \times \text{FP}$  can take two *weeks* for full recovery!

### FP Recovery

The more FP you spend, the harder your body has to work to repair itself. If you get deeply fatigued, you can recover enough FP to limp around pretty rapidly, but full recovery can take a long time.

Each FP you lose between starting FP and starting FP/2 represents *mild fatigue*, and recovers at the rate of 1 FP per 20/(starting FP) hours. Each FP lost from starting FP/2 to 0 FP is *severe fatigue* and takes 80/(starting FP) hours to recover. Once you drop below 0 FP, that's *deep fatigue* – the point where

you're risking injury; each FP lost will only recover 1 FP per 240/(starting FP) hours!

When recovering, you always recover any FP classified as mild fatigue first, and then you restore losses due to severe fatigue. Finally, you recover FP lost from deep fatigue.

If you are forced to spend FP again while recovering, each FP spent “reverses” a recent recovery period (see *Recovery Criteria*, below). If this expenditure dips you to severe fatigue or deep fatigue, those lost points will need to recover at the rates for severe fatigue or deep fatigue (as appropriate . . . and only after all points for less-serious fatigue are recovered).

The *Recovery Rate Table* (below) shows how many hours are required to recover 1 FP at each threshold of fatigue.

Note that it *always* takes 10 hours to recover from complete mild fatigue, it always takes 40 hours to recover from all severe fatigue, and it always takes 10 days to recover from deep fatigue. (The table rounds for convenience's sake.) In other words, if you're suffering from severe fatigue, your recovery is 10 hours to get through the “mild” stage, *plus* a certain number of hours per FP for severe. If you're in *deep* fatigue, it's 10 hours to clear the mild fatigue, 40 hours to recover the severe fatigue, and then a number of hours per FP to regain the deep fatigue, depending on your starting FP.

*Example:* Your first 13 FP will take 50 hours to recover: 10 hours for your first 6 FP, and then 40 hours for your next 7 FP. By this point, you've rested 50 hours, and have regained 13 FP, fully recovering through severe fatigue. It will take about 18.5 hours for each of your 5 remaining spent FP to be recovered as you work through deep fatigue.

*I do feel tired. More fatigued, really. I don't know if it's from being right or . . .*

– Adrian Monk, *Monk* #3.15

### Recovery Criteria

You must rest in order to recover FP. While sitting around and drinking tea certainly qualifies, absolute stillness isn't a requirement. You can move around at a speed of up to 20% of your encumbered Move and still recover fatigue. For example, if your Move is lowered from 6 to 4 due to being below FP/5 remaining, *and* you're at  $0.8 \times \text{Move}$  due to encumbrance, you may only recover FP if you limit yourself to 20% of Move 3 – only 0.6 yards (about 2') per second!

If during any recovery interval, you expend FP for *any* reason – extra effort, missing a meal, casting a spell, heat exhaustion, arguing with a troll on an Internet forum – any time already spent resting for that interval is lost.

### Recovery Rate Table

Starting FP	Hours per FP Recovered												
	8	9	10	11	12	13	14	15	16	17	18	19	20
Mild Fatigue	2.5	2.25	2	1.75	1.75	1.5	1.5	1.25	1.25	1.25	1	1	1
Severe Fatigue	10	8.75	8	7.5	6.75	6.25	5.75	5.5	5	4.75	4.5	4.25	4
Deep Fatigue	30	26.75	24	21.75	20	18.5	17.25	16	15	14	13.25	12.75	12

## Long Recovery and the Rule of Awesome

Having FP recover more slowly potentially violates the *Wendler-Dell'Orto Rule of Awesome: Anything that enhances the potential for something to be Awesome is good. If what you're doing isn't Awesome, stop doing it and do something else.*

Making FP recover more slowly *can* be awesome, though. Being down a few levels of skill or strength because you've been on the run from Bad Guys, and succeeding anyway? Awesome. Having to make the dramatic choice between sleep/recovery and beating your rival to the Holy Grail Grenade? Also awesome. Making massive FP

expenditures for spell casting or extra effort a bit more strategic due to higher cost in recovery time? That can definitely enhance storytelling, and therefore be awesome.

Still, fair warning: This concept makes FP more valuable in games where they're used a lot, and requires more bookkeeping. This will need to be balanced against the potential dramatic impact of having to manage resources. The GM will need to make such expenditures have high Awesomeness potential. Adventurers built around massive and continuous expenditure of FP for extra effort in combat will need much more recovery time after each battle.

# SHORT-TERM FATIGUE

All-out, anaerobic thrash action will leave nearly anyone breathless. Fights often have an ebb and flow to them that does not arise naturally from the *GURPS* rules – there's nothing to prevent, or even discourage, a Move or an Attack every second. This section offers some options to encourage conditioning to matter, to provide for lulls and flurries in a battle to present themselves organically, and for full-throttle action to result in quick exhaustion, but equally quick recovery if you can shepherd your resources and take sufficient short breaks.

## ACTION POINTS

Mimicking these situations invites a system representing short-term energy reserves. The reserves are depleted – and replenished – on the *GURPS* time scale of *seconds*. Here, this store of short-term energy is called *Action Points (AP)*.

Everyone starts with AP equal to his *HT* – not FP. Action Points are expended every time you do something physical: move, attack, defend, lift something heavy (including drawing a bow), etc.

### *Extra Action Points*

**2 points/level**

Action Points can be bought up (but not down), limited to 150% of the character's *HT* in realistic games. Cinematic games could increase those limits, and superheroes have no limits, though a bottomless bag of AP might not be the best way to achieve your goal.

### *Hitting Bottom*

Action Points represent a store of short-term energy, and may never be reduced below zero. When you reach 0 AP, you're too drained to do anything that *costs* AP – you must opt for zero-cost events (pp. 10-11), or use recovery events (p. 11) to gain them back. You *may* burn either a Fatigue Point or a Destiny/Wildcard point (see *GURPS Monster Hunters 1: Champions*, p. 31, or *GURPS Power-Ups 5: Impulse Buys*, p. 5) for a *Second Wind* (p. 12), recovering AP equal to 50% of *HT* (round up).

*Example:* A fighter with *HT* 13 would start with 13 AP. If during the course of a combat, he dropped to 0 AP, he would not be able to do anything that costs AP. He could Evaluate, take *one* step per turn (best saved for a retreat!), All-Out Defend (p. 10), or perform any other recovery or zero-cost event. He may elect to burn a FP or (if the game has them) a bonus point to regain 7 AP.

A cinematic adventurer may start with a large number of AP, allowing a very intense initial burst of exertion – perhaps enough to win a fight. This flurry of activity, if matched point for point by a less-conditioned rival, could force his unfortunate rival to spend FP in order to do anything but mount a limited defense. This becomes a fight strategy based on exhaustion, especially if using *Gradual Impairment Due to Fatigue* (pp. 4-5).

### *Mighty Warriors and Action Points*

Another option borrows and modifies the concept of bonus points. Each 12 points in relevant skills or advantages gives an extra AP per *flurry*. A flurry begins when you start spending AP, and ends when you have completely recovered back to your starting AP total.

You may only spend these AP on an appropriate action during that time. If you had Broadsword at DX+4 [16], during each flurry, your skill would give one extra AP while performing an action using a broadsword, such as an attack or parry. Karate at DX+5 [24] would give an extra 2 AP per flurry, where your extensive training allows you to perform actions that others cannot. Advantages such as Weapon Master (All Bladed Weapons) [40] (p. B99) would grant 3 AP to actions performed with blades, while if you *also* had Trained By a Master [30] (p. B93) and Shortsword at DX+4 [16], you would have spent 86 points on things benefitting Shortsword, providing a flurry pool of 7 AP.

## STRENUOUS EVENTS

Most combat actions will cause a reduction in AP. The topics below give guidance for the cost of typical events.

## Action Points, Machines, and the Undead

Creatures and constructs that *just keep going* will refill back to their starting AP fully each turn. They can spend all of their AP each turn, but no more. They cannot push themselves by burning FP (they don't have any) and receive no bonus points either. The instant refill *does* make them worthier adversaries.

Give them enough *Regeneration (AP Recovery)* (p. 12) to completely replenish their starting AP pool every second. Such recovery may be tied to an appropriate limitation, such as Trigger (Fuel, Consumes a dose of fuel for each AP recovery) or Electrical (AP recovery can be disrupted by Surge-based powers).

It will be a campaign-specific decision on how damage impacts such creatures. If they have enough AP to move,

attack, defend a few times, and aim each turn, damage to a particular limb (or system, for a machine) would just disallow that action, and lower AP accordingly. If structural damage reduces its ability to propel itself, or reduces power plant output, AP should be reduced proportionately.

This could make such foes *really* scary, since – unlike normal bags of flesh and protoplasm that have digestion, a pulse, and whatever equivalent to glycogen is appropriate – they will never need to rest or pause. The AP rules will *force* most PCs to take a few breaks in the action, but like the android in *The Terminator*, such a creature “doesn't feel pity, or remorse, or fear. And it absolutely will not stop, ever, until you are dead.”

### Active Defense (1 AP)

p. B374

Any active defense, whether it be a block, dodge, or parry, costs 1 AP to execute.

### Active Defense Option: Retreat (0 AP or 1 AP)

p. B377

You are allowed to move up to your step (p. B368) on your turn without spending AP. *Any* movement beyond that limit (see *Move*, p. 9) costs AP. For most adventurers, this means you get one free yard of movement per turn, and then it starts costing you AP.

### All-Out Attack (0 AP or 2 AP)

p. B365

All-Out Attack (Determined) for *ranged* weapons costs 0 AP. All varieties of *melee* All-Out Attack cost 2 AP, including All-Out Attack (Determined). Most variants of All-Out Attack stack two regular maneuvers together: All-Out Attack (Double) is two attacks; All-Out Attack (Feint) is a Feint plus an Attack, etc.

*The strongest have their  
moments of fatigue.*

– Friedrich Nietzsche

### Attack (0 AP or 1 AP)

p. B365

Taking a *melee* Attack maneuver costs 1 AP; *ranged* attacks, such as firing a gun or crossbow, or releasing an arrow from a

drawn bow do *not* cost AP. *Drawing* a bow, however *does* cost 1 AP per Ready maneuver required to pull back a bowstring or span a crossbow.

### Committed Attack (2 AP)

*Martial Arts*, pp. 99-100

Committed Attacks cost 2 AP, just like All-Out Attacks. You're trading some offensive oomph for the ability to defend yourself.

### Defensive Attack (1 AP)

*Martial Arts*, p. 100

A Defensive Attack costs 1 AP. You trade damage for the ability to defend yourself more successfully, but the effort to strike the foe is present.

### Fast-Draw, Quick-Readying, and Quick-Whatever (1 AP)

pp. B194-195 and *Martial Arts*, pp. 103-104

The burst of energy required to draw a weapon or load a weapon in zero time requires the expenditure of 1 AP. For genres such as *Dungeon Fantasy* where a fighter might draw and nock two arrows at once, you only pay the AP cost *once*, for each discrete motion.

Quick Reload (*GURPS Gun Fu*, p. 21, and *GURPS Tactical Shooting*, p. 39) and quick-reading each cost 1 AP as well. Note that if you speed-draw a bow, you'll pay 2 AP to do it in “zero” time: 1 AP for the speed-draw attempt, and the usual 1 AP to Ready the weapon.

### Feint (1 AP)

p. B365 and *Martial Arts*, p. 100

A Feint looks and feels like an attack to your opponent, and costs 1 AP. Beats and Ruses (see *Martial Arts*, pp. 100-101) are feints based off of a different attribute, but cost the same. Resisting a Feint costs nothing *if you win*, but costs 1 AP otherwise.

## Grappling Actions (1 AP or 2 AP)

pp. B370-371 and *Close-Combat Options, Martial Arts*, pp. 114-119

Each *Action After a Grapple* requires an Attack or All-Out Attack maneuver; they burn AP accordingly. Engaging in a Quick Contest to *resist* a grappling attack or technique costs AP similar to an active defense. Rolls to inflict damage or pain with an Arm Lock are “completely passive,” and do not cost AP. Applying *Throws from Locks* (see *Martial Arts*, pp. 118-119) counts as an attack, and costs 1 AP. Attempting to break free (or resisting an attempt!) also costs 1 AP.

## Injury and Damage (Varies)

Getting punched, kicked, folded, spindled, or mutilated costs you 1 AP per HP of injury sustained, but this can be resisted with a HT roll to lessen the effects. This is applied after all modifiers for damage type and hit location are assessed. Subtract the margin of victory from the AP loss; this can completely mitigate the AP-based effects. A critical success results in no AP loss regardless of margin of victory. High Pain Threshold gives +3 to the roll; Low Pain Threshold is -4.

## Injury (1 AP lost per HP)

Apply the usual shock penalty as a modifier to the HT roll to mitigate AP loss.

## Pain (Varies)

Every second you are in pain costs you AP. Lose 2 AP per second for mild pain, 4 per second for moderate pain, 8 per second for severe pain, 12 per second for terrible pain, and 20 AP per second for agony. High Pain Threshold and Low Pain Threshold have their usual effects on the HT roll, but additionally, High Pain Threshold halves the AP losses, while Low Pain Threshold doubles them! The AP loss occurs at the start of each turn you are in pain. Note that the worst that you can suffer is being brought down to 0 AP; you cannot go negative. The massive AP loss for Low Pain Threshold will force frequent recovery or zero-cost events, or burning FP to scrape up enough Action Points for a short crawl . . . before you go unconscious due to FP loss.

## Shock

The impact to DX and IQ after injury are quite real, but with the penalties to AP often providing suitable encouragement to back off and fight defensively for one or more turns after an injury, it might be desirable to halve injury (round down) when figuring shock, or let the same HT roll mitigate both shock and AP loss. In both cases, shock should be capped at the same -4 to DX and IQ.

## Strangulation (1 AP per second)

When strangled, you usually lose 1 FP per second (see pp. B370-371). Instead, lose 1 AP per second. When you drop to 0 AP, each second thereafter, make a HT roll. Failure results in unconsciousness. If the stranglehold is maintained – as per *Suffocation* (pp. B436-437) – after two minutes, you must roll vs. HT or suffer -1 IQ due to permanent brain damage. After four minutes, you're dead.

If the stranglehold is released and you're not dead yet, roll vs. HT-4 each turn to regain consciousness. Even when you do, you

wake up *stunned* (p. B420). You may take Do Nothing recovery actions while you're stunned, but you roll vs. HT, not HT+4.

Note that you do *not* get an additional mitigation roll for strangulation if you have already lost the Quick Contest of ST or HT for chokes or strangles in combat. The Quick Contest was your opportunity to avoid the effects!

## Movement (Varies)

Movement is *very* tiring, especially as it is performed in *GURPS* combat! A typical Move 5 warrior can, from a standing start, cover five yards and arrive *totally still* and be ready to defend himself. This is pretty intense acceleration and deceleration! Here are some suggestions for AP costs for body movement.

## Step (First step free; 1 AP per additional step)

p. B368

Your step gives a “free” movement allowance for a given turn . . . for adventurers with Move of 10 or less, it's equal to one yard. Any movement in excess of this – including Retreats! – costs AP. Speedster superheroes with many-yard steps can do a *lot* of combat motion before they burn their full allowance!

## Maneuvers vs. Actions

The GM will need to determine if Action Points are spent per action (such as an individual attack or Fast-Draw sequence) or per maneuver; either could be appropriate for a campaign. Dual-Weapon Attack, Rapid Strike, and Extra Attack all add extra attack *events* to an Attack *maneuver*. Several Quick-Whatever actions followed by an attack are all part of one maneuver as well. You may be fast enough to attack three times in one Attack maneuver, but it might be pretty realistic to say that it tires you out that much faster. Thus, in realistic games, each individual attack, defense, or other discrete action should cost AP.

## Move (Varies)

p. B364

You may always move up to your step for free. Movement after that costs 1 AP per 10% of your Move (round normally to the nearest 10%). An unencumbered human with Move 5 and a one-yard step that wants to take his whole move gets his first yard free, as his step. To move four more yards (80% of his Move) costs 8 AP. A warhorse with Enhanced Move 1 and a Ground Move of 16 would have a two-yard step. The remaining 14 yards of movement (87.5% of Move, rounded to 90%) would cost 9 AP.

If you made a Move maneuver last turn, you don't need to spend additional AP to maintain or decrease your speed, but pay full cost for additional acceleration.

## Variant Move: Acceleration

For more detail, replace the simple rules above with costs based on acceleration instead of pure movement. What costs AP is a change in your *residual velocity*: the speed you moved on your previous turn. Increasing your velocity by 100% of your encumbered Move costs 5 AP (1 AP per 20% Move); decreasing it by 100% costs 3 AP (1 AP per 33% Move).

*Example:* A mounted warrior is traveling on a horse with Move 7 and Enhanced Move 1 (max speed Move 14). He moved 4 yards in the previous turn. He wants to kick it into high gear, and he can accelerate his horse from 4 yards per second to 11 yards per second by spending 5 AP. The following turn, he wants to increase by 3 yards per second, roughly 43% of Move; this costs 2 AP.

This matches *GURPS* rules fairly well, allowing acceleration equal to Move. To match real-world sprinting records, have acceleration cost 1 AP per 10% Move, to a maximum of Move/2!

### Move and Attack (Varies)

pp. B365-366

The AP cost for a Move and Attack maneuver is the sum of a Move (as above), plus the cost of a regular Attack.

### Runaround Attacks

A “runaround” attack (p. B391) combines at least three yards of movement with many facing changes (only your first 60° is free!) and tops it off with an Attack. Executed by a warrior with encumbered Move 5 on an opponent in an adjacent hex, the first facing change and step are free. Two yards of additional movement is 4 AP, four additional 60° rotations are 4 AP, and the attack costs him 1 AP, for 9 AP total!

### Sprinting (1 AP per turn)

p. B354

Moving at more than 100% of your encumbrance-adjusted Move costs 1 AP per turn! There is no extra adjustment or AP cost for the weight carried; the speed reduction is sufficient. If you don't spend the AP for that turn, you drop back to 100% move.

### Facing and Posture Changes

Altering your positioning, especially with extreme changes, can cost AP.

#### Change Facing (0 AP for first 60° rotation, 1 AP per additional 60°)

*Movement and Facing*, pp. B386-387

Changing facing in combat does not cost AP for your first 60° rotation. To rotate more costs 1 AP for each hex-side facing change.

#### Change Posture (1 AP per level going up; 1/2 AP per level going down)

p. B364 and *Martial Arts*, p. 98

Changing posture should be visualized in levels. Standing and crouching occupy the top level, kneeling the second level, sitting or crawling the third, and lying down is the fourth. *Raising* yourself one level costs 1 AP per level. *Lowering* yourself is half-cost, rounding *down*. Thus, dropping from standing to prone in one move (three levels) is 1 AP. Standing up from prone is 3 AP, and likely involves an *Acrobatic Stand* (*Martial Arts*, p. 98); you spend the AP whether you succeed or fail!

### Ready (1 AP)

p. B366 and *Martial Arts*, pp. 101-104

Any Ready maneuver that represents real exertion – such as drawing a bow or spanning a crossbow, changing grips or Reach on a weapon, or quick sheathing – costs 1 AP. *Exception:* A full-second ready does not cost AP for actions such as drawing a sword, cocking or unholstering a gun, etc.

The GM should use his discretion here. If the motions could be considered aerobic exercise or strength training when performed repetitively (such as the rapid grip and Reach changes in a martial-arts staff form), he should probably charge AP for executing them as a Ready maneuver.

### Techniques (1 AP or 2 AP)

Most combat techniques are variants of attacks themselves. A technique that counts as an attack costs at least 1 AP.

Techniques such as Sacrifice Throw (*Martial Arts*, p. 78) that are explicitly All-Out Attacks cost 2 AP.

### Telegraphic Attack (Same as parent attack)

*Martial Arts*, p. 113

This attack option does not change the AP cost of the attack that it modifies.

## ZERO-COST EVENTS

Here is the list of instances and maneuvers that *don't* cause a loss in short-term fatigue.

### Aim

p. B364

This action is primarily mental, but requires control of the body for breathing, heart rate, and careful motion. While Aim does not cost you AP, you don't recover AP while aiming, either.

### All-Out Defense

p. B366

You gain 2 AP that can *only* be spent on defensive actions. Parries, blocks, dodges, and retreats (including slips and sideslips) all count, as would resisting Quick Contests in grappling. *Nothing* that counts as an attack may utilize these extra points – Aggressive Parry is forbidden, for example. If unused, these AP disappear at the start of your next turn.

### Concentrate

p. B366

As with Aim, this maneuver may be primarily mental, but it's *not* relaxing!

### Critical Success

p. B347

Many actions that cost AP involve die rolls: attacks, defenses, or DX rolls to change posture. If any of these rolls is a critical success, the AP cost for that part of the action is zero.

This results in effortless flying kicks, smooth and painless acceleration, or a seamless retreating defense. To give high-skill characters even more punch in cinematic genres such as **GURPS Action** or **Dungeon Fantasy**, the GM could decide that any skill roll made by 10 or more costs no AP, even if it's technically not a critical success.

## RECOVERY EVENTS

Just as taking physical actions causes expenditure of Action Points, pausing in the action can recover them. This can result in lulls in combat, as one or both fighters circle and evaluate each other after a flurry of blows, to recover short-term fatigue.

On your next turn after you chose a recovery event, immediately make a HT roll – this roll is *definitely* penalized for *Gradual Impairment Due to Fatigue* (pp. 4-5) if using those rules! If you succeed, you gain back 1 AP, plus an additional AP for every four *full* points by which you make the roll.

The following events may provide the opportunity to recover AP. Recovery of AP *never* regains FP; if you take enough recovery actions to be at max AP, good for you . . . but you need downtime to recover lost fatigue.

### Do Nothing

p. B364

If uninterrupted during a turn in which you Do Nothing, roll at +4 to HT when recovering AP. This is the fastest way to catch your breath.

*Example:* Someone with HT 12 takes a Do Nothing maneuver and is uninterrupted. At the beginning of his *next* turn, he rolls vs. HT, and gets an 8. His margin of success is 8: He recovers 3 AP that turn.

### Evaluate

pp. B364-365 and *Martial Arts*, p. 100

The classic in-combat recovery maneuver. Each second of study and deliberation allows a roll for recovering AP. This

isn't quite as passive as Do Nothing, so you roll vs. HT with no bonus instead of HT+4. This may or may not be a net win; it will depend on your ability to avoid being struck without many active defenses – especially retreating ones – so that, on balance, you gain back more AP than you spend.

*Coach Boone: What are you?*

*Team: Mobile, agile, hostile!*

*Coach Boone: What is pain?*

*Team: French bread!*

*Coach Boone: What is fatigue?*

*Team: Army clothes!*

*Coach Boone: Will you ever quit?*

*Team: No! We want some more, we want some more, we want some more!*

– *Remember the Titans*

### Wait

pp. B366 and *Martial Arts*, p. 108

This maneuver doesn't cost you any AP . . . unless it becomes something else, at which point, you pay the full AP cost for whatever moves are being tried. If you pass the turn *without* your Wait being triggered, you may roll vs. HT to recover AP.

# ADVANTAGES, DISADVANTAGES, AND SKILLS

Some advantages and disadvantages (including powers and some cinematic abilities) need to be considered, perhaps carefully, when looking at the new concepts for FP recovery and Action Points. Certain skills also require examination.

### Altered Time Rate

pp. B38-39

You get to take extra maneuvers per turn for each level of Altered Time Rate. You can act *and* take a recovery action each turn, or act twice. Whatever the choice, you pay full AP cost for each event. Though the cost is similar to regaining 1 FP per turn (100 points), Altered Time Rate is more flexible in terms of other combat actions.

### Breath Control

p. B182

When used with the long-term fatigue rules, you may make a Breath Control roll at the midpoint of any recovery interval (one hour into a two-hour recovery period). If successful, you recover 1 FP and begin the next interval. This *stacks* with the halving of FP intervals given by Fit.

Using the Action Point rules, rolling vs. Breath Control allows recovery of an extra AP per 2 full points by which you make a recovery roll, instead of the usual 4. This will lower the time to recovery AP by about 1/3.

This skill as written is basically a cinematic super-skill, since it's more than twice as effective as Fit and has no down side.

The GM may wish to only allow it for those with appropriate advantages (Trained By a Master is always a popular choice), since recovery of AP may dictate the pace of combat.

## Cosmic (Enhancement)

p. B103 and

**GURPS Power-Ups 4: Enhancements**, pp. 6-9

Cosmic can play merry havoc with play-balance, by design. The most obvious use for the Cosmic enhancement when spending AP is to declare an ability to have no AP cost. The tricky part here is that many things that someone would enhance, such as an attack or movement, have no point value to adjust. A player doesn't have to pay anything to give his character a punch (1 AP for an attack) or to take his basic Move (often about 8 AP for a full Move). In these cases, to achieve zero-cost "basic" abilities, buy Regeneration (AP Recovery) (see below) sufficient to allow the adventurer to do what he wants him to. Free movement of up to 8 AP per round would cost 200 points for regeneration, but possibly with a Limitation (Move only), -50%.

When enhancing extra abilities that would be modified to cost 0 AP, such as Enhanced Move or Innate Attack, the GM should consider that this gives three benefits: It breaks the usual rule, it saves AP for other uses, and it provides actions the character can do and not have to spend down time in recovery events. That is likely worth *at least* +150%, potentially up to the level of *Godlike Tricks* (+300%) (see **Power-Ups 4**, p. 8) . . . or more.

## Fit and Very Fit

p. B55

These two advantages give bonuses to HT rolls for most purposes (but don't increase the underlying attribute or skills). They also alter the rate at which FP are recovered and lost. Logically, being more fit should apply to Action Points as well . . . but Fit only costs 5 points, and AP are purchased for 2 points each. Fit and Very Fit thus add their HT bonuses (+1 for Fit, and +2 for Very Fit) to recovery rolls, but that's the only benefit they give to AP recovery.

## Metabolism Control

p. B68

Each level of Metabolism Control gives +1 to HT rolls for recovering AP. Realistic games can keep this pricing for the HT bonus, and drop being able to feign death.

## Regeneration (Fatigue Recovery)

p. B80 and **Powers**, p. 70.

With the smallest increment of FP recovery being on the order of hours rather than minutes, the GM should reduce the lower limit at which purchasing Fatigue Recovery makes sense, and allow intermediate recovery rates. Consult the table below for suggested point costs.

Points	FP/hour	Points	FP/min.	Points	FP/sec.
25	1	50	1	100	1
30	2	60	2	110	2
35	5	70	5	120	3
40	15	80	15	130	4
45	30	90	30	140	6

## Regeneration (AP Recovery)

25 points/level

You automatically regain 1 AP per turn. Maybe you're a machine. Maybe you're recharged by a yellow sun. No matter what the source, at the end of your turn, you recover 1 AP/level. This is a good trait for constructs and creatures that can burn through their entire allotment of AP every turn without slowing down or needing to rest. As such, it's very expensive (a machine with HT 12 that recovers to its starting AP every turn would cost 300 points!), but represents the amount of "unfairness" that being the only creature on the field that doesn't have to rest and recover AP entails. The GM should be very careful about allowing this to normal humans without a good reason, likely tied to some sort of power modifier that limits the regeneration or offers some sort of countermeasure (see *Evaluating Power Modifiers*, **Powers**, p. 20).

## Second Wind

5 points/level

This advantage increases the AP you receive when spending a FP, by 10% of your HT per level. That is, you recover AP equal to 60% of HT with level 1, 70% of HT with level 2, and so on. (Always round up.) The GM may wish to limit this advantage to five levels (100% of HT).

## Unfit and Very Unfit

p. B160

These two disadvantages penalize rolls to recover AP, at -1 for Unfit and -2 for Very Unfit, but that's all. Their effects on FP are unchanged.

*One cannot rest except  
after steady practice.*

– George Ade

## SPENDING FP ON ADVANTAGES, SPELLS, AND SKILLS

Many advantages – such as Healing, Jumper, Snatcher, Warp, and others – cost FP to use. Spells burn FP unless the GM assigns a special mana pool, separate from the normal trait. Some skills – such as Entrhancement skills, Flying Leap, and Power Blow – cost FP to attempt.

The GM will need to decide if he wants to leave those costs unchanged, or alter them. Remember that FP are recovered geometrically using the *FP Recovery* rules (p. 6). Thus, using Captivate for 8 FP (severe fatigue for a HT 10/FP 10 Bard) would take almost 34 hours to fully recover, rather than the 80 minutes assumed at a rate of 10 minutes per FP.

The following options can tweak this other than by just leaving the extended costs alone.

*Constant Duration:* For high-cost abilities such as Captivate, setting the cost to 1 FP instead of 8 would allow total recovery in two hours, which is more than the default, but not insane.

*Costs Action Points:* For rapid-use abilities like spells or power blow that define a character, altering 1 FP to be (for example) 10 AP would allow a caster or martial artist – both of whom will expect to make a lot of 1 FP expenditures – to

either risk long recovery times by burning FP, or to pause to recover for several seconds in battle to recover AP. Extra effort can likewise be changed to an AP scale for the same reason. If the GM wishes to increase the use of such abilities (or if the typical spell cast is 3 FP instead of 1 FP), altering the exchange rate of FP to AP would provide a method to balance the casting rate.

# PARTING SHOT: PLAY IMPLICATIONS

The rules here give a menu of options to allow fatigue to play a larger role in games. Running “all options on” might be appropriate for some games, but not others, and the GM will need to carefully consider – as always! – his players’ expectations.

Warriors especially will want to play a few test combats to see how long they can press an engagement in a flurry before they have to back off to recover AP. Without some experience, it will be all too easy to expend AP so fast that the person is left exhausted, penalized, and unable to do much other than defend.

In any sort of combat-heavy game, the participants will likely be gaining or losing AP *every turn*. This means tracking them can potentially dominate the game. Tokens of some sort – such as poker chips, numbered dice, or an *Epic Munchkin* level counter – are *strongly* recommended to keep track of the ebb and flow of action points. The last few (maybe enough for two retreating active defenses) might even be alternate colors, as a warning that pretty soon the character will either need to recover or burn a FP.

One potentially interesting outcome of fights that have more ebb and flow is that the battle may well become more mobile. With fighters taking time to rest and save up AP for flurries, it may be possible to use some of that “downtime” for repositioning. It also encourages partnership tactics, such as front-line fighters taking turns resting by dropping back from the line.

## WENSLER-DELL’ORTO RULE OF AWESOME, REVISITED

The key, of course, is to keep it Awesome. High-powered PCs can and will use superior numbers of AP, faster recovery rates, and greater stores of FP to battle foes into exhaustion, inducing penalties or forcing Will rolls as their opponent tires. Flurries are moments of high action, and it should be quite possible to drive an opponent so hard he is forced to All-Out Defend just to recover enough AP to flee!

Of course, that will be less fun when General Evil does that to *you* . . .

## 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.

## NPCs and Action Points: Keeping the GM Sane

For the GM, while keeping track of AP for one or two “boss monsters” wouldn’t be too bad, tracking AP for 20 goblins constitutes cruel and unusual punishment in 47 U.S. States.

Rather than keep track of AP for a legion of troops, each turn, roll 1d. If the roll comes up 1-5, the character takes his turn normally, and attacks, defends, moves, or uses any abilities he has normally. If the die roll comes up a 6, roll again. On a 1-2, he still acts normally; on a 3-4, he spends 1 FP; and on a 5-6, he backs off and recovers AP for 3d seconds. Consider him to be All-Out Defending or Evaluating during this time, as appropriate.

If he’s forced to alter this strategy and elects any strenuous event (pp. 7-10), he automatically spends 1 FP and may re-engage.

This should keep the GM from having to track AP individually, and will result, on the average in about a 10-second burst of activity, followed either by a loss in FP, or backing off for an equal amount of time.

He would like to offer profuse thanks for critical examination, playtest, and comments by Antoni Ten Monró, Emily Smirle, Richard Bing, Jonathan Helland, Jeromy French, David Nichols, Peter Dell’Orto, Rory Fansler, Nathan Joy, Theodore Briggs, and Mark Langsdorf.

# FROM SKILLS TO ADVANTAGES

BY SEAN PUNCH

When you can't find the advantage you want for a character, one solution is to create an ability that meets your needs by putting modifiers on an existing advantage (perhaps even bringing out *GURPS Powers*). If that fails, there's always the option of inventing a new trait (see *New Advantages*, pp. B117-118). Another possibility is to check whether the desired capability exists as a cinematic or supernatural *skill*. However, a skill might be unsatisfactory for any of several reasons:

- A skill is learned and improvable, while you want an innate, static trait.
- The skill has many applications, while you have one specific feat in mind.
- The skill has prerequisites (advantages or other skills) that are unsuitable or simply too expensive.

## Mundane Skills to Advantages

These rules are for turning cinematic and supernatural skills into advantages. *Mundane* skills don't lend themselves well to this treatment: they lack specialized advantage prerequisites (like Trained by a Master); anyone can attempt them at default, so they aren't very advantage-like; and someone who's good at a single aspect of the skill could simply use *Optional Specialties* (p. B169). Being able to carry off an extremely minor feat covered by an ordinary skill is just a perk:

*One-Task Wonder*: There's one specific trick you can do with a particular skill – but without knowing the skill! This can't be the skill's *primary* use, a combat move, or anything done at a penalty. Any other task is acceptable. To perform your trick, roll against the skill's controlling attribute. *1 point*.

*Example*: A crook who can hotwire a car without knowing *Mechanic* could take OTW (*Hotwiring Cars*), because that's a near-trivial use of *Mechanic*, not a primary application, and not combat-relevant. *Mechanic* is IQ-based, so he must roll vs. IQ for the deed.

At the GM's option, One-Task Wonder can be acquired as an advantage and associated with a power. It doesn't need major restrictions beyond "works for just one task." Being a perk, though, it can never have enhancements or limitations.

- You want an advantage to incorporate into a power or a set of alternative abilities, or to which you can apply modifiers.
- You simply don't picture the ability as a skill!

In that case, it can be tempting to convert the skill to an advantage – but how? To get around the "learned and improvable" problem, just select a relative skill level, freeze it, and price it. Many advantages require a roll against an attribute or a secondary characteristic (like the Perception roll to benefit from Danger Sense), so this is a simple matter of buying the skill at attribute level; see the *Skill Cost Table* (p. B170).

To solve the puzzle of applications and prerequisites, use the following perk (which comes from *GURPS Martial Arts* and *GURPS Power-Ups 2*):

*Unusual Training*: You may have one specific cinematic or supernatural skill *without* its standard prerequisites – simply buy this perk and then learn the skill. In return for this freedom, you have to specify a narrow set of circumstances that must hold in order to use the skill: a particular application, a specialized environment, an especially arduous set of preparations, etc. This is a separate perk for each skill and set of conditions! *1 point*.

Combining a skill at attribute level with an Unusual Training perk yields a "package" that you can treat as an advantage, as explained in *Implications* (below). Advantage cost is just the sum of the costs:

Skill Difficulty	Easy	Average	Hard	Very Hard
Advantage Cost	2	3	5	9

It's important to set *real* limitations on skill use, though. If advantages of comparable scope would cost more than this – even with sizeable limitations that emulate the skill's inherent drawbacks, such as an attribute roll, preparation time, or FP cost – then that's a signal that the skill's original prerequisites helped pay for its capabilities. For instance, skills that require Trained by a Master have a 30-point buy-in, and might be unbalanced without it. To justify a discount in such cases, the GM should strictly circumscribe use and/or add a significant preparation requirement.

## IMPLICATIONS

The original skill write-up *plus* the stipulations of the Unusual Training perk define the effects and function of a skill-turned-advantage. Ignore any part of the skill text that discusses concepts that only make sense for skills (e.g., study times and equipment bonuses).

Where Unusual Training establishes stricter conditions for skill use than the rules for the original skill, these take precedent.

When “being a skill” is what matters for game purposes, the ability no longer counts as a skill. It can’t be taught to others. Spells, powers, and technologies (such as ultra-tech teaching aids) that let the user loan skills to others *cannot* transfer these gifts. If the campaign uses professional templates, the trait can’t be bought using points set aside for skills, but must come out of the advantage budget.

Conversely, when “being an advantage” is important, the knack is an advantage for all purposes. This is especially significant when it comes to frameworks such as racial templates (pp. B260-262), meta-traits (pp. B262-263), and alternative abilities (**Powers**, p. 11) – and when capabilities like Modular Abilities (p. B71) and Morph (pp. B84-85) specifically add advantages. Skills-turned-advantages can also be modified (*Applying Enhancements and Limitations*, below) and added to powers (*Applying Power Modifiers*, below). Some might even be available through ultra-tech surgery.

Either way, this means taking the good with the bad! If a group of alternative abilities burns out or is neutralized, then a skill-turned-advantage that belongs to that set is affected, and the owner can’t avoid this by claiming it’s a skill. On the other hand, if black magic or an infernal machine steals skills, it won’t remove *these* traits – the owner *can* escape the effect by pointing out that his gift is an advantage.

## Applying Enhancements and Limitations

Skills-turned-advantages can be modified, but not every modifier applies unconditionally:

*Accessibility* (p. B110), *Aspected* (**Powers**, p. 110), *Environmental* (**Powers**, p. 110), *Preparation Required* (p. B114), *Requires Concentrate or Ready* (**Powers**, p. 112), *Specific* (**Powers**, p. 112), and *Takes Extra Time* (p. B115): These limitations are off-limits. To get their effects, adjust the conditions that Unusual Training specifies. This perk always restricts circumstances, target, and/or time required, and costs 1 point however strict it is.

*Attack Enhancements and Limitations* (p. B102): These aren’t permitted.

*Based on (Different Attribute)* (p. B102): If you want the roll to be against a score other than that which controls the skill, use this *instead of* the Attribute Substitution perk from **Power-Ups 2**. Moving the roll between any two of DX, IQ, HT, Will, or Per is fine; shifting to ST is not.

*Cosmic* (p. B103): Used to give a skill broader applicability within the constraints of its Unusual Training, this is worth +50%. As an attack modifier, it’s off-limits.

*Extended Duration* (p. B105), *Increased Range* (p. B106), *Long-Range* (**Powers**, p. 108), *Ranged* (p. B107), *Reduced Fatigue Cost* (p. B108), and *Reduced Time* (p. B108): A skill’s duration, FP cost, preparation time, range, and similar parameters are among the things that keep it balanced and enable skill cost to work as the basis for valuation. The GM should look long and hard at these modifiers before allowing them.

*Fickle* (**Powers**, p. 110), *Requires (Attribute) Roll* (**Powers**, p. 112), and *Unreliable* (p. B116): All skills-turned-advantages require a roll, and these limitations add a *second* roll. Although not strictly off-limits, they’re best avoided as a hassle.

*Reliable* (**Powers**, p. 109): This modifier is strictly forbidden! To adjust the odds of the new advantage working, buy a different skill level.

## Applying Power Modifiers

Power modifiers are allowed on skills-turned-advantages provided that the GM signs off on them and they don’t incorporate modifiers prohibited above. Anything that affects the power affects the modified trait, of course! For instance, slapping on a psionic power modifier allows Neutralize (p. B71) and Psi Static (p. B78) to interfere with the ability, as it’s no longer a learned skill but an innate psychic gift.

## EXAMPLES

Below are some illustrative examples. By varying the Unusual Training conditions, the GM could use the same skills as the basis of entirely different traits. Other skills are possible, too – although it’s best to avoid anything easily emulated with advantages, particularly Enthralment skills (pp. B191-192) and Flying Leap (p. B196), which work best as modified Mind Control (pp. B68-69) and Super Jump (p. B89), respectively.

### Beast-Charmer

9 points

By humming or singing to a mundane animal or a swarm of tiny ones (like rats) with IQ 1-5, you can improve their reaction toward you, per Musical Influence (p. B210). Make an IQ roll after a minute. Success gives a reaction bonus equal to the margin, to a maximum of +3 (+4 on a critical success).

**Traits:** Unusual Training (Musical Influence, Only on mundane animals, with one minute of preparation, to improve reaction toward self) [1] + Musical Influence (VH) IQ [8].

### Burst of Power

5 points

You’re capable of brief-but-impressive feats of strength out of combat. After a minute of preparation, you may pay 1 FP and roll vs. Will. Success doubles your ST for the next second – long enough to make one attempt to shift something heavy, kick in a door, etc. Anything that would affect Power Blow (p. B215) also affects this gift, which cannot be combined with ordinary extra effort.

**Traits:** Unusual Training (Power Blow, Only after lengthy preparation out of combat) [1] + Power Blow (H) Will [4].

### Crypto Kid

9 points

You’re remarkably good at guessing passwords! In a world where Computer Hacking (p. B184) is too cinematic to exist, you may make one IQ roll per computer system, ever, to guess a password that will give you access. The usual penalties for security measures apply to your roll. Success gives a password that lets you log in on *some* account – the greater the success, the better the access. Only critical success gives an *administrator’s* password!

**Traits:** Unusual Training (Computer Hacking, Only to guess a password, one attempt ever) [1] + Computer Hacking (VH) IQ [8].

## Echolocation

9 points

By making noise – clicking your tongue, tapping a cane, etc. – you can interpret the reflected sound to deduce where things are. This requires a Hearing roll every second, with the modifiers listed for Blind Fighting (p. B180), and works like that skill with two exceptions. First, you *cannot* be stealthy while doing this; you always emit detectable sounds. Second, this trick doesn't allow ranged attacks, only blows in melee combat. For fuller-featured echolocation, take Sonar (p. B81).

**Traits:** Unusual Training (Blind Fighting, Only in melee, never when being stealthy) [1] + Blind Fighting (VH) Per [8].

### A Nice Price

Most **GURPS** advantages cost a whole-numbered multiple of 5 points, and many gamers like this – it makes evaluating modifiers easier, particularly with *even* multiples (10 points, 20 points, etc.). Conveniently, advantages built from Hard skills cost 5 points! To get 5 points in all cases, the GM can simply use a flat 4 points in the skill, giving attribute+2 for Easy, attribute+1 for Average, or attribute-1 for Very Hard skills. Alternatively, he might give Very Hard skills more generous Unusual Training conditions worth 2 points, bringing the package cost to 10 points; e.g., Beast-Charmer might affect unnatural animals (like *giant* rats), or Feign Death may also resist *magical* attempts to sense life.

## Eye for the Arcane

9 points

In some settings, Ritual Magic (p. B218) or Thaumatology (p. B225) is the basis of actual magic-working, and only those with Magery and/or an Unusual Background may learn it. This gift lets its possessor recognize magic as if he had such training. The GM will secretly roll vs. the user's IQ whenever he witnesses magic. Success means that he realizes that it's magic *and* knows what the casting will do. Unlike Detect (p. B48), this represents a native understanding that relies on mundane senses; it *isn't* a supernatural sense.

**Traits:** Unusual Training (Ritual Magic or Thaumatology, Only to recognize magic on sight, always rolled in secret) [1] + Ritual Magic or Thaumatology, both (VH) IQ [8].

## Feign Death

9 points

By taking a minute and making a HT roll, you can enter a deathlike trance. This is indistinguishable from death by the untrained, but those with Diagnosis can penetrate the deception by winning a Quick Contest against your HT. This is a limited version of Body Control (p. B181).

**Traits:** Unusual Training (Body Control, Only to enter a trance after extensive preparation) [1] + Body Control (VH) HT [8].

## Find Weakness

5 points

You have an eye for flaws in objects – or perhaps your touch softens matter! After a minute of studying an object, you may pay 1 FP and attempt an IQ roll. Success lets you benefit from the rules for Breaking Blow (p. B182) with your next barehanded attack on that item: your armor divisor is (5), and your target is considered Fragile (Brittle). This doesn't work in combat.

**Traits:** Unusual Training (Breaking Blow, Only after lengthy preparation out of combat) [1] + Breaking Blow (H) IQ [4].

## Healer's Touch

5 points

You have an innate ability to see the flow of life energy and manipulate it by touch. Whenever a First Aid roll is required, you may roll vs. Per instead; success produces the same benefits without any need for equipment. This may seem like a questionable deal next to putting a point in First Aid, but that skill is at -10 without equipment (p. B345)!

**Traits:** Unusual Training (Esoteric Medicine, Only to simulate First Aid) [1] + Esoteric Medicine (H) Per [4].

## Hypnotic Gaze

5 points

In a campaign where the ability to use Hypnotism (p. B201) as an attack is ruled out as "highly cinematic," you can do just that! After five seconds of eye contact (five Concentrate maneuvers in combat), roll a Quick Contest: your IQ vs. your subject's Will. He resists at +5 in combat. If you win, he falls asleep and will stay that way for 1d hours unless awakened.

**Traits:** Unusual Training (Hypnotism, Only as a cinematic sleep attack) [1] + Hypnotism (H) IQ [4].

## Master's Voice

5 points

You can freeze an animal in its tracks with the power of your speech. This works like Kiai (p. B203), but uses a basic HT roll and can only affect a single, mundane animal. It has no effect, not even an Intimidation bonus, against IQ 6+ or supernatural beings.

**Traits:** Unusual Training (Kiai, Only on mundane animals) [1] + Kiai (H) HT [4].

## Outside the Box

9 points

In most settings, Weird Science (p. B228) is a little too much; in particular, its huge bonus on invention rolls can get out of hand. This knack grants only the ability to assist investigations of technology, weird or not. On an IQ roll, you get +2 to all rolls made to examine a given device, and receive a default roll to operate it *if* the GM permits this. This represents a mind for the bizarre, not study or training

**Traits:** Unusual Training (Weird Science, Only to investigate artifacts) [1] + Weird Science (VH) IQ [8].

## Painful Grip

5 points

You can use the rules for Pressure Points (p. B215) – but only when targeting limbs, and only when grappling. After successfully grappling someone’s arm, leg, hand, or foot, you can opt to roll a Quick Contest of IQ vs. his HT. Victory cripples that body part for 5d seconds.

**Traits:** Unusual Training (Pressure Points, Only vs. limbs while grappling) [1] + Pressure Points (H) IQ [4].

## Somebody Else’s Problem

9 points

You can pick one subject and hide from him while remaining in plain sight! You must be out of combat and motionless, and win a Quick Contest of IQ vs. his Vision roll each second. Penalties for darkness, distraction, etc. apply to his roll – but if he’s specifically looking for or alerted to trouble, he gets +3. If you move at all, attack, or do anything but observe, he sees you. This is superior to Stealth in that it requires no actual concealment; you could sit in the back of a car and remain unseen to the driver, elude a lone watchman in a well-lit hallway, etc.

**Traits:** Unusual Training (Invisibility Art, Only vs. one subject while motionless) [1] + Invisibility Art (VH) IQ [8].

## Stupendous Shove

5 points

You’re capable of shoving opponents around with barehanded attack. You must stand still to do so – you cannot step, let alone run, and you may not retreat on a turn when you use this attack. Make a DX roll to hit. On a hit, effective ST for the shove is the *higher* of your ST or DX; roll *swing* damage for that ST and double the result. This damage causes knockback only, never injury.

**Traits:** Unusual Training (Push, May not step or move while doing so) [1] + Push (H) DX [4].

## Taste for the Uncanny

9 points

In most worlds where Alchemy (p. B174) makes sense, anybody can learn it. In secret- and rare-magic settings, though, it commonly requires an Unusual Background or is off-limits to PCs. This knack bypasses that restriction! Whenever you taste a potion, the GM will roll against your IQ in secret. Success means he’ll reveal what the stuff will do *before* you swallow enough to be affected.

**Traits:** Unusual Training (Alchemy, Only to analyze by taste, always rolled in secret) [1] + Alchemy (VH) IQ [8].

## Traceless Step

5 points

On a successful DX roll, you leave no visible tracks. Tracking rolls to follow you fail automatically unless they involve a sense other than sight (e.g., scent or psychic residue).

**Traits:** Unusual Training (Light Walk, Only to hide trail) [1] + Light Walk (H) DX [4].

## Spells?

In principle, spells could be converted like other supernatural skills. There is a major game-balance consideration lurking here, though: Many spells would cost tens to hundreds of points built as advantages! Thus, the GM should create all spell-based advantages, if he even allows them.

**GURPS Power-Ups 2** offers a Charm perk, each instance of which enables a character to learn one spell without meeting its spell and Magery prerequisites. However, Charm *doesn’t* bestow the capacity to cast spells in normal or lower mana. That demands at least Magery 0, which could be given the One-Spell Magery limitation from **GURPS Thaumatology**, yielding Magery 0 (One-Spell Magery, -80%) [1]. To keep spell-based advantages balanced, it would be fair to add this to every Charm-enabled spell.

Thus, spells that meet the GM’s standards as reasonable end up using these costs:

Charm [1] + Magery 0 (One-Spell Magery, -80%) [1] + Spell (H) IQ [4] = 6 points

Charm [1] + Magery 0 (One-Spell Magery, -80%) [1] + Spell (VH) IQ [8] = 10 points

Such spells have their usual casting time, energy cost, duration, etc., and are affected normally by mana level. High effective skill never reduces time to cast or FP cost!

Spell-based advantages might be balanced in a common-magic campaign, where high Magery and dozens of spells are cheaper in bulk (e.g., a wizard with Magery 2 [25] and 10 spells at IQ level pays 35 points, which is far less than 60-100 points). Elsewhere, the GM may wish to allow only spells that don’t require Magery 1+ in their prerequisite chains – or to forbid spell-based advantages. If combat effectiveness is the only issue, though, then declaring that such spells treat casting times given in seconds as minutes (extra time is common for skills enabled with Unusual Training) should solve the problem.

## Unshakeable Balance

5 points

You can root yourself in place. This requires your undivided attention; you must take a Concentrate maneuver, may not move at all (not even a step!), and cannot retreat until next turn. Whenever you’re hit by an attack that causes knockback, make a DX roll at -1 per yard of knockback; add +4 if you have Perfect Balance (p. B74). Success means you won’t budge or fall; failure means you’re affected normally.

**Traits:** Unusual Training (Immovable Stance, Can do nothing else simultaneously) [1] + Immovable Stance (H) DX [4].

## ABOUT THE AUTHOR

Sean “Dr. Kromm” Punch set out to become a particle physicist in 1985, ended up the **GURPS** Line Editor in 1995, and has engineered rules for almost every **GURPS** product since. He developed, edited, or wrote dozens of **GURPS Third Edition** projects between 1995 and 2002. In 2004, he produced the **GURPS Basic Set, Fourth Edition** with David Pulver. . . and the list keeps growing. He lives in Montréal, Québec with his wife.

# COLORLESS GREEN IDEAS SLEEP FURIOUSLY

BY ROGER BURTON WEST

*GURPS Fourth Edition* treats languages as a specialized form of advantage, with three levels of fluency in a spoken or written form. Here is a slightly more complex approach, useful in campaigns where modeling mutual comprehensibility is important.

Note that languages, like most biological phenomena, are not as neatly sorted into groups as this article would imply. In many places, it is a matter of political affiliation whether something is regarded as a language in its own right or a “mere” dialect of another. For example, the very existence of the Altaic language family is considered a matter for scholarly dispute.

## Terms

For purposes of these rules, “speaker” should be understood to refer to both speakers and writers, and “listener” to both listeners and readers. A “message” may be spoken or written.

## LEARNING AND USING LANGUAGES

Under this system, languages have three components: the spoken form, the written form, and the specific script system (or systems) used to write it. The first two of these are Average difficulty skills bought from a base of 10 (not IQ); see p. B170 for the cost progression. These skills are used to compose or understand the language; they will often also give defaults to understanding other languages. Each script system is a perk.

Under the *Basic Set* rules, a person receives IQ+2 in his native language (spoken and written), and any appropriate script perks; these may be bought up or down at character creation. The GM may wish to increase a campaign’s starting point total because, using the new system, a native English

speaker with IQ 12 would have to spend 33 points on English (Spoken)-14 [16], English (Written)-14 [16], and the Latin script perk [1] to have the same abilities he would get under the standard *GURPS* rules for free. Remember that not all native speakers of a language are equally fluent in it!

Language Talent is now a leveled advantage. Each level costs 5 points, and gives +1 to all spoken and written language skills. It is cinematic above level 2.

The GM may wish to allow a Language Anti-Talent (*Power-Ups 3: Talents*, pp. 19-20). A playable PC will have at least a native language, so this Anti-Talent prevent the person from learning any others. It is -5 points/level, and will adversely affect the reaction rolls of anyone who is aware of that he is attempting to use a foreign language – which might take the form of speaking English *very slowly and clearly*.

Major dialects and accents are treated somewhat like familiarities (p. B169): They are free to learn, but must be noted, and a character normally receives -1 to skill when working with a dialect with which he is unfamiliar. These would cover (for example) British, American, and Canadian English; the Bokmål and Nynorsk variants of Norwegian; or Classical, Ecclesiastical, and Legal Latin.

Knowledge of a particular language often helps a person understand more languages; this is represented by defaults. Some languages in the table on pp. 20-23 default directly to each other; if there is no direct default, use -6 for languages in the same subfamily, or -8 for languages in the same family.

*Example:* Michael’s sole language skill is English-15. He can understand Dutch at 11 (listed with the language), Danish at 9 (also Indo-European/Germanic), and Urdu at 7 (also Indo-European, but not Germanic).

Some who has spent points in multiple languages that give a default to the one he’s trying to understand should take the best default, then add 1 for every two additional languages in the same subfamily, never exceeding the highest skill level -1.

*Example:* John has English-15, but has also learned a little German, Icelandic, Danish, and Swedish; his default in Dutch is raised from 11 to 13. However, no matter how many other Indo-European/Germanic languages he learns, his Dutch skill will never be better than the highest of those language skills -1 unless he spends points on it.

These costs reflect the difficulty of learning languages as an adult. A child character will pick them up much faster. The child counts daily life as eight hours per day for this purpose, and doubles all points gained from language training, until he reaches IQ+2 levels in both spoken and written languages. See pp. B292-B294.

## MAKING YOURSELF UNDERSTOOD

Failing language skill rolls should be a rare event for most people. An average native speaker has a skill of 12; with the usual +4 for routine use, he will readily make himself understood in everyday life.

Language skills serve as caps to skills that depend on language (see p. B24 under the Broken comprehension level). Artistic skills, also noted there, require a roll against the artistic skill *and* another against the language skill, using the worse result.

*Example:* Someone with Poetry-16 rolls an 8 to write his poem, but rolls a 10 against his English (Written)-12, so the overall result is only a success by 2.

A person who knows at least one script can use it to write down any language he hears, even if he doesn't understand it – but this will be a rough record at best. Any artistic effect is automatically lost when recorded this way. (Truly phonetic systems such as IPA, the International Phonetic Alphabet, are learned as scripts and do not suffer this problem.)

When considering a message that must be understood in isolation, such as a recorded speech or a piece of writing where the author is not available, note the skill level of the author as well as the margin by which any relevant artistic skill roll was made. It is possible to speak or write *below* your skill level, if you want your message to be understood by people who don't speak the language well. In this case, your effective language skill is the average of your own skill and the target level, rounded down.

## UNDERSTANDING OTHERS

Roll your language skill to understand a typical short communication – at +4 if the situation is not stressful, or +8 if in an interactive situation where the speaker is willing to cooperate and take extra time. If you have never encountered the language before, apply a -2 familiarity penalty until you have heard enough to get a feel for the structure of it; this will take the usual eight hours (see *Familiarity*, p. B169).

If you are listening to a noninteractive message, and the communication was composed at a higher language skill level than you understand, take a penalty of the difference between the author's skill level and your own. If you do not have the perk for the script a message is written in, you automatically fail.

*Example:* Michael, with his (defaulted) Danish-9, is trying to read a piece of poetry intended for native speakers – it's a

communication written to target skill 12. He rolls at 9 - (12 - 9), 6. If he tries to read a children's book (target skill 9), he can roll against his full skill of 9.

When listening to a message, language skills still serve as caps to skills that depend on language, but artistic skills are more complex. Where the quality of your understanding is important – for example, if you are attempting to appreciate an artistic piece of speech or writing with the Connoisseur skill or analyze some foreign propaganda – roll against the lower of the relevant evaluation skill and your language skill. If the language skill of the piece is higher than your skill in the language, take a penalty equal to the difference.

## TRANSLATION

To translate a message from language to another, work out your effective skill for comprehending the message as above. Then make two rolls: one against that, and another against your skill in the language you're translating into. If you fail the first roll, you get nowhere. If you make the first roll but not the second, your translation is comprehensible but not idiomatic, and will lose any artistic effect it might have had.

This normally takes about twice as long as reading the text at a normal pace. To translate on the fly (e.g., to act as an interpreter), make both rolls at -5.

*A shprakh iz a dialekt mit an armey un flot.*

– Max Weinreich

## THE WRITTEN WORD

Many languages have been, or still are, written in more than one script, depending on the writer and context. Most literate people learn only one script when growing up.

The script perks used in this system are broadly defined. Turkish uses different accented letters from Danish, although both are based on the Latin character set, and the Persian version of Arabic is visibly different from the Middle Eastern version. However, learning all of these would be covered by the Latin and Arabic script perks respectively.

Some script usages have changed over time; historical researchers will need to know all scripts. For example, Acehnese – spoken primarily in the Aceh province of Sumatra – was originally written in Arabic, but is now written in Latin. (This a common tendency once movable-type printing and typewriters arrive in a country, and even more so in the computer age.) Tajik was written in the Persian alphabet (very close to Arabic) before the 1920s, in Latin in the 1930s, and in Cyrillic from World War II onward.

Many languages that did not develop a written form before missionaries and conquerors arrived, or which had one that did not readily lend itself to printing, have come to be recorded in the script of the colonial power. Colonial regimes have attempted to suppress or destroy native languages and particularly literature, with varying degrees of success. Modern linguists try to preserve or resurrect languages, and their cause is often taken up by independence movements.

# TABLE OF LANGUAGES

This list shows those languages with more than around 3,000,000 native speakers at the time of writing, and some others likely to be relevant to gamers. The table indicates language family, the script forms most commonly used, and comprehension defaults from other languages.

<i>Language</i>	<i>Family</i>	<i>Scripts</i>	<i>Comprehension</i>	<i>Notes</i>
Acehnese	Austronesian/Malayo-Polynesian	Latin		
Afrikaans	Indo-European/Germanic	Latin	Dutch-3	
Akan	Niger-Congo/Atlantic-Congo	Latin		
Albanian	Indo-European/Albanian	Latin		
Amharic	Afro-Asiatic/Semitic	Ge'ez		
Arabic	Afro-Asiatic/Semitic	Arabic		
Armenian	Indo-European/Armenian	Armenian		
Assamese	Indo-European/Indo-Iranian	Assamese		
Austro-Bavarian	Indo-European/Germanic	Latin	German-2	
Awadhi	Indo-European/Indo-Iranian	Devanagari		
Azerbaijani	Altaic/Turkic	Latin, Cyrillic, Arabic	Turkish-5	
Bagheli	Indo-European/Indo-Iranian	Devanagari	Hindi-2	
Balinese	Austronesian/Malayo-Polynesian	Latin, Balinese		
Balochi	Indo-European/Indo-Iranian	Latin, Arabic		
Bambara	Niger-Congo/Mande	Latin		
Batak	Indo-European/Indo-Iranian	Latin, Batak		
Belarusian	Indo-European/Balto-Slavic	Cyrillic	Russian-5, Ukrainian-5	
Bengali	Indo-European/Indo-Iranian	Bengali		
Bhili	Indo-European/Indo-Iranian	Devanagari		
Bhojpuri	Indo-European/Indo-Iranian	Devanagari		
Bikol	Austronesian/Malayo-Polynesian	Latin		
Buginese	Austronesian/Malayo-Polynesian	Latin, Lontara		
Bulgarian	Indo-European/Balto-Slavic	Cyrillic	Macedonian-1, Torlakian-1	
Burmese	Sino-Tibetan/Tibeto-Burman	Burmese		
Cebuano	Austronesian/Malayo-Polynesian	Latin, Cebuano		
Chewa	Niger-Congo/Atlantic-Congo	Latin		
Chhattisgarhi	Indo-European/Indo-Iranian	Devanagari		
ChiBemba	Niger-Congo/Atlantic-Congo	Latin		
Chittagonian	Indo-European/Indo-Iranian	Bengali		[1]
Czech	Indo-European/Balto-Slavic	Latin	Slovak-1	
Dakhini	Indo-European/Indo-Aryan	Urdu		
Danish	Indo-European/Germanic	Latin	Norwegian-5, Swedish-5	
Dari	Indo-European/Indo-Iranian	Persian	Persian-2, Tajik-2	
Dholuo	Nilo-Saharan/Eastern Sudanic	Latin		
Dutch	Indo-European/Germanic	Latin	Afrikaans-3, English-4, German-5	
Efik	Niger-Congo/Atlantic-Congo	Latin		
English	Indo-European/Germanic	Latin	Dutch-4, Jamaican Creole-5	
Estonian	Uralic/Finnic	Latin	Finnish-5	
Ewe	Niger-Congo/Atlantic-Congo	Latin		
Faroese	Indo-European/Germanic	Latin	Icelandic-1/-3	[2]
Finnish	Uralic/Finnic	Latin	Estonian-5, Karelian-5	
French	Indo-European/Italic	Latin	Haitian Creole-5, Italian-4, Latin-5	
Fula	Niger-Congo/Atlantic-Congo	Latin, Arabic		
Galician	Indo-European/Italic	Latin	Portugese-1, Portuguese-1, Spanish-1	
Gan	Sino-Tibetan/Sinitic	Hanzi		[3]
Georgian	Kartvelian/Karto-Zan	Georgian		
German	Indo-European/Germanic	Latin	Austro-Bavarian-2, Bavarian-2, Dutch-5, Yiddish-3	
Gikuyu	Niger-Congo/Atlantic-Congo	Latin		
Greek	Indo-European/Hellenic	Greek		
Guarani	Tupian/Tupi-Guarani	Latin		
Gujarati	Indo-European/Indo-Iranian	Gujarati, Arabic		
Haitian Creole	French Creole/Antillean Creoles	Latin	French-5	
Hakka	Sino-Tibetan/Sinitic	Hanzi		[3]
Haryanvi	Indo-European/Indo-Iranian	Devanagari		[4]

<i>Language</i>	<i>Family</i>	<i>Scripts</i>	<i>Comprehension</i>	<i>Notes</i>
Hausa	Afro-Asiatic/Chadic	Latin, Arabic		
Hebrew	Afro-Asiatic/Semitic	Hebrew		
Hiligaynon	Austronesian/Malayo-Polynesian	Latin		
Hindi	Indo-European/Indo-Iranian	Devanagari	Bagheli-2, Urdu-2	
Hungarian	Uralic/Ugric	Latin		
Icelandic	Indo-European/Germanic	Latin	Faroese-1/-3	[2]
Igbo	Niger-Congo/Atlantic-Congo	Latin		
Ilokano	Austronesian/Malayo-Polynesian	Latin		
Indonesian	Austronesian/Malayo-Polynesian	Latin	Malay-1	
Italian	Indo-European/Italic	Latin	French-4, Latin-3, Piedmontese-2, Sicilian-2, Spanish-4, Venetian-2	
Jamaican Creole	English Creole/Atlantic	Latin	English-5	[5]
Japanese	Altaic/Japonic	Katakana, Hiragana, Hanzi, Latin		[6]
Kamba	Niger-Congo/Atlantic-Congo	Latin		[5]
Kanauji	Indo-European/Indo-Iranian	Devanagari		
Kannada	Dravidian/Southern	Kannada		
Kashmiri	Indo-European/Indo-Iranian	Arabic, Devanagari		
Kazakh	Altaic/Turkic	Cyrillic		
Khmer	Austro-Asiatic/Mon-Khmer	Khmer	Lao-3, Thai-3, Vietnamese-5	
Kimbundu	Niger-Congo/Atlantic-Congo	Latin		
Kinyarwanda	Niger-Congo/Atlantic-Congo	Latin	Kirundi-1	
Kirundi	Niger-Congo/Atlantic-Congo	Latin	Kinyarwanda-1	
Kongo	Niger-Congo/Atlantic-Congo	Latin		[5]
Konkani	Indo-European/Indo-Iranian	Devanagari		[7]
Korean	Altaic/Korean	Korean		
Kurdish	Indo-European/Indo-Iranian	Arabic, Latin, Cyrillic		[8]
Kyrgyz	Altaic/Turkic	Cyrillic		
Lao	Tai-Kadai/Tai	Lao	Khmer-3, Thai-2	
Latin	Indo-European/Italic	Latin	French-5, Italian-3, Piedmontese-4, Sicilian-4, Spanish-4, Venetian-4	
Lithuanian	Indo-European/Balto-Slavic	Latin		
Lombard	Indo-European/Italic	Latin		
Luba-Kasai	Niger-Congo/Atlantic-Congo	Latin		
Macedonian	Indo-European/Balto-Slavic	Cyrillic	Bulgarian-1, Torlakian-1	
Madurese	Austronesian/Malayo-Polynesian	Latin		
Magahi	Indo-European/Indo-Iranian	Devanagari		
Maithili	Indo-European/Indo-Iranian	Devanagari, Mithilakshar		
Makhuwa	Niger-Congo/Atlantic-Congo			
Malagasy	Austronesian/Malayo-Polynesian			
Malay	Austronesian/Malayo-Polynesian	Latin, Arabic	Indonesian-1	
Malayalam	Dravidian/Southern	Malayalam		
Mandarin	Sino-Tibetan/Sinitic	Hanzi	Xiang-3	[3]
Mandinka	Niger-Congo/Mande			[5]
Marathi	Indo-European/Indo-Iranian	Devanagari		
Marwari	Indo-European/Indo-Iranian	Devanagari		
Mazanderani-Gilaki	Indo-European/Indo-Iranian	Arabic		
Min Bei	Sino-Tibetan/Sinitic	Hanzi		[3]
Min Dong	Sino-Tibetan/Sinitic	Hanzi		[3]
Min Nan	Sino-Tibetan/Sinitic	Hanzi		[3]
Minangkabau	Austronesian/Malayo-Polynesian	Latin		
Mongolian	Altaic/Mongolic	Mongolian, Cyrillic		
Mossi-Dagbani	Niger-Congo/Atlantic-Congo	Latin		
Neapolitan	Indo-European/Italic	Latin		
Nepali	Indo-European/Indo-Iranian	Devanagari		
Northern Berber	Afro-Asiatic/Berber	Tifinagh, Latin, Arabic		[9]
Norwegian	Indo-European/Germanic	Latin	Danish-5, Swedish-3	
Oriya	Indo-European/Indo-Iranian	Oriya		
Oromo	Afro-Asiatic/Cushitic	Latin		
Pashto	Indo-European/Indo-Iranian	Pashto		

<i>Language</i>	<i>Family</i>	<i>Scripts</i>	<i>Comprehension</i>	<i>Notes</i>
Persian	Indo-European/Indo-Iranian	Arabic	Dari-2, Tajik-2	
Piedmontese	Indo-European/Italic	Latin	Italian-2, Latin-4	
Polish	Indo-European/Balto-Slavic	Latin		
Portuguese	Indo-European/Italic	Latin	Galician-1, Spanish-5	
Punjabi	Indo-European/Indo-Iranian	Gurmukhi, Sharmukhi		
Quechua	Quechumaran/Quechua	Latin		
Rajasthani	Indo-European/Indo-Iranian	Devanagari		
Rangpuri	Indo-European/Indo-Iranian	Devanagari, Bengali		
Romanian	Indo-European/Italic	Latin		
Russian	Indo-European/Balto-Slavic	Cyrillic	Belarusian-5, Ukrainian-5	
Rwanda-Rundi	Niger-Congo/Atlantic-Congo			[5]
Santali	Austro-Asiatic/Munda	Latin, Ol Chiki		
Serbo-Croatian	Indo-European/Balto-Slavic	Latin, Cyrillic		[10]
Shan	Tai-Kadai/Tai	Shan		
Shona	Niger-Congo/Atlantic-Congo			[5]
Sicilian	Indo-European/Italic	Latin	Italian-2, Latin-4	
Sindhi	Indo-European/Indo-Iranian	Devanagari, Arabic		
Sinhala	Indo-European/Indo-Iranian	Sinhala		
Slovak	Indo-European/Balto-Slavic	Latin	Czech-1	
Somali	Afro-Asiatic/Cushitic	Latin		
Sotho-Tswana	Niger-Congo/Atlantic-Congo			[5]
Spanish	Indo-European/Italic	Latin	Galician-1, Italian-4, Latin-4, Portuguese-5	
Sukuma-Nyamwezi	Niger-Congo/Atlantic-Congo			[5]
Sundanese	Austronesian/Malayo-Polynesian			
Swahili	Niger-Congo/Atlantic-Congo	Latin, Arabic		[11]
Swedish	Indo-European/Germanic	Latin	Danish-5, Norwegian-3	
Sylheti	Indo-European/Indo-Iranian	Sylheti Nagari, Bengali		
Tagalog	Austronesian/Malayo-Polynesian	Latin		
Tajik	Indo-European/Indo-Iranian	Cyrillic, Latin, Arabic	Dari-2, Persian-2	
Tamil	Dravidian/Southern	Tamil		
Tatar-Bashkir	Altaic/Turkic	Cyrillic, Latin, Arabic		
Telugu	Dravidian/Central	Telugu		
Thai	Tai-Kadai/Tai	Thai	Khmer-3, Lao-2	
Tigrinya	Afro-Asiatic/Semitic			
Tokelauan	Austronesian/Malayo-Polynesian	Latin	Tuvaluan-1	
Torlakian	Indo-European/Balto-Slavic	Latin, Cyrillic	Bulgarian-1, Macedonian-1, Serbian-1	
Tsonga	Niger-Congo/Atlantic-Congo	Latin		
Turkish	Altaic/Turkic	Latin	Azerbaijani-5	
Turkmen	Altaic/Turkic	Latin, Cyrillic		
Tuvaluan	Austronesian/Malayo-Polynesian	Latin	Tokelauan-1	
Ukrainian	Indo-European/Balto-Slavic	Cyrillic	Belarusian-5, Russian-5	
Urdu	Indo-European/Indo-Iranian	Urdu	Hindi-2	
Uyghur	Altaic/Turkic	Uyghur	Uzbek-2	
Uzbek	Altaic/Turkic	Latin, Cyrillic	Uyghur-2	
Venetian	Indo-European/Italic	Latin	Italian-2, Latin-4	
Vietnamese	Austro-Asiatic/Mon-Khmer	Latin	Khmer-5	
Wolof	Niger-Congo/Atlantic-Congo	Latin, Arabic		
Wu	Sino-Tibetan/Sinitic	Hanzi		[3, 12]
Xhosa	Niger-Congo/Atlantic-Congo	Latin		
Xiang	Sino-Tibetan/Sinitic	Hanzi	Mandarin-3	[3]
Yiddish	Indo-European/Germanic	Hebrew	German-3	
Yoruba	Niger-Congo/Atlantic-Congo	Latin		
Yue/Cantonese	Sino-Tibetan/Sinitic	Hanzi		[3]
Zulu	Niger-Congo/Atlantic-Congo	Latin		

*Languages, like most biological phenomena, are not actually neatly sorted into groups.*

## Notes

[1] Chittagonian is rarely written; most educated speakers also speak, and prefer to write, in Bengali.

[2] Better default only applies to written form.

[3] Most Chinese writing is in the Mandarin language, even if the writer's preferred language is one of the others spoken in China. This has given rise to the myth that Chinese languages are mutually comprehensible in written form; a native Cantonese speaker may in fact have learned Cantonese (Spoken) and Mandarin (Written).

[4] Most writing by native speakers is in Hindi.

[5] No standardized written form.

[6] Native speakers learn all script forms.

[7] Occasionally also written in Latin, Kannada, Malayalam, and Arabic.

[8] Arabic in Iraq, Iran; Latin in Turkey, Syria, and Armenia; Cyrillic in former Soviet countries.

[9] Script choice is often political; Arabic and Latin are associated with being part of a greater cultural movement, while Tifinagh is preferred by the young.

[10] Bosnian, Croatian, Montenegrin, and Serbian are all mutually intelligible in their standard forms, whether spoken or written (if the Latin alphabet is used), and are considered separate languages primarily for political reasons. The Latin alphabet is used except in Serbia, where Cyrillic predominates.

[11] Very common as a second language in East Africa.

[12] Dialects can differ from each other by as much as -4.

*There was speech  
in their dumbness,  
language in their  
very gesture.*

*—William  
Shakespeare,  
The Winter's Tale*

## SIGN LANGUAGES

As with other human languages, signed languages have both a spoken (signed, actually) and a written form, though many speakers choose not to learn the latter. Sign languages often have little or no structural commonality with spoken languages; because the first American to promote a language for the deaf happened to study in Paris rather than in London, American Sign Language shares some 60% of its vocabulary with French Sign Language, and very little with British Sign Language.

Signing systems within the same family default to each other at -6, and those within the same subfamily at -4. Many

sign languages are developed in isolation, and have no useful defaults to each other. The broad families are British (with the Swedish subfamily), French (with subfamilies American, Austro-Hungarian, Danish, and Italian), German, and Japanese.

Most countries have their own sign languages, but the family usually depends on the training of whomever first started teaching deaf people to sign there, rather than on geographical location. In the Americas, French/American is the usual subfamily. Africa mostly uses French/American languages, but South Africa relies on a British variant and there are many isolates. Asia has a patchwork of Chinese, Indian, French/American, British, and Japanese. Europe largely uses French-derived languages, though Sweden and Finland use British/Swedish systems.

## THE SIMPLE APPROACH

If linguistics is not the major focus of the campaign, the table in this article can be combined with the language similarity rules from Demi Benson's article "Languages, Culture and the Common Tongue" from *Pyramid* #3/16: *Historical Exploration*. Languages with a listed default are considered "closely related"; others in the same subfamily are "distantly related"; and others in the same family "very distantly related."

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## ABOUT THE AUTHOR

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# EIDETIC MEMORY

## TACTICAL MASS COMBAT

BY DAVID L. PULVER

*GURPS Mass Combat* can resolve large battles with a few die rolls, but every so often, my players want to demonstrate their tactical genius in greater detail. The rules in this article describe how to turn *Mass Combat* into a simple tactical game without changing unit statistics.

This variant works best for battles involving 4-40 elements per side – platoons to battalions. It is designed for land battles between two groups; for siege, air, or naval combat, rely on the existing rules. For land confrontations with more than two factions, see the guidelines on p. 35.

### PRIOR TO THE BATTLE

Use the *Campaigning* (*GURPS Mass Combat*, pp. 26-29) rules to determine how forces move and whether a battle occurs. Replace the *Before the Battle* and *Fighting the Battle* with the following rules.

#### Map

Fight the battle on a hex-grid map. The hex size should be big enough for whatever counters or figures are available. Any hex map suitable for normal *GURPS* tactical battles is fine, or borrow one from a board game. (I used the *G.E.V.* map.)

If making your own map, 30 × 40 hexes suits a battalion-size battle (40+ elements). For smaller battles 2/3 to 1/2 that size is good.

The GM should draw or specify the terrain on the map appropriate to wherever the battle is fought. Each hex is 100 yards. To keep things simple, elevation and detail of built-up areas like towns are abstracted; terrain features are assumed to fill an entire hex. This simplified terrain scheme is used in the following rules.

*Clear:* Open ground, desert, plains, ice. Usually the majority of the map.

*Woods:* Forest, woods, or jungle (color a hex dark green!).

*Built-Up:* Buildings or entrenchments. Draw a building symbol.

*High Ground:* Hilly or mountainous terrain. Brown hexes or hill symbols.

*Swampland:* Swamp or marsh, heavily plowed fields, or mud. Light-green hexes.

*Water:* Wide river, ocean, etc. that can't easily be forded. Blue hexes!

*Stream:* A narrow watercourse. Draw a blue line along the borders of a hex.

*Road:* A line connecting one hex to another. If it crosses water, it's a bridge or ford.

If borrowing a map from a game, make sure the group agrees on what the map's features represent.

#### Light

Roll 1d; add +1 if either side is TL7+. On 1-4, it's day; on 5 or more, it's night.

#### Elements

Represent each element with a single counter or miniature. Pick something that can fit the hex-size used – create counters, borrow from other games, or use *Cardboard Heroes* or figures. Single 1/300 scale miniatures or infantry stands work nicely.

### SETUP OF BATTLEFIELD ELEMENTS

Setup depends on the Reconnaissance Contest (*GURPS Mass Combat*, pp. 28-29). It indicates initiative and determines if an encounter or pitched battle or ambush occurs.

#### *Pitched Battle (Neither Side Ambushed)*

The GM designates each force as having a "home map edge" on opposite sides of the map. The faction that *lost* initiative sets up first. (On a tie, roll to see which force does so.) Each participant must set up no further from their home side's map edge than 1/4 the map's shortest dimension (round up). For instance, on a 20 × 30 hex map, each must set up within five hexes of their home edge.

#### *Pitched Battle (One Side Ambushed)*

The ambushed side sets up first. Its elements must set up in the center of the map within a radius equal to 1/4 the map's shortest dimension (round up).

The ambushing side then sets up. Place elements anywhere that is at least 1/4 the map's shortest dimension distant from all enemy elements.

### *Encounter Battle (No Side Ambushed)*

The GM assigns each side a home map edge, usually on opposite sides of the map. The side that lost initiative sets up its elements on the map no further from their home edge than 10% the map's shortest dimension. The side that won initiative than sets up in the same way. If both sides tied, roll a die to see who sets up first.

### *Encounter Battle (One Side Ambushed)*

The GM gives the ambushed side a home edge. That faction sets up first. Elements must be placed at least 1/4 but no more than 1/2 the map's shortest dimension (round up) from their side's home edge. The ambushing side then sets up. Elements may be placed within 1/4 the map's shortest dimension from any map edge *except* the ambushed side's home edge.

### *Special Situations*

The following circumstances could affect setup.

#### **Confusion**

If a side was surprised or ambushed its forces are confused. They cannot move or attack on their first turn.

#### **Stacking and Transport**

Up to four friendly elements may be stacked in the same hex when setting up. Stacking is an advantage in close combat

but a disadvantage against ranged fire. If an element can transport other elements, it may optionally begin with them loaded aboard, up to its Transport weight limit. Stack the carried tokens under the one transporting them.

#### **Earthworks**

In a pitched battle, the side with initiative may have established earthworks (such as trenches). On a tie, both sides may have them. In an encounter battle, a defender that was encamped and hunkered down may use earthworks. Earthworks can go in any friendly element's hex.

If a side has earthworks, it gets one per four Foot or Mechanized elements, plus one per engineering element; round up.

*Exception:* Impetuous and Fanatic elements do not count for creating earthworks unless engineers.

Earthworks protect the entire hex. Only one can be placed in each hex. They can't be placed in Water, Built-Up, or Swamp-land hexes. They don't move. Draw them on the map or use a counter to mark them; I used large coins, like quarters.

A Foot or Mechanized element in an earthwork has TS doubled when defending.

#### **Off-Map Elements**

Certain elements can support the battle without being present on the map, so no counters may be needed for them. If a side is not ambushed, it may place any TL6+ artillery as located "off map" (up to half its maximum range distant from a home map edge). Note its range. In addition, all Fast or Slow Air elements that lack some other type of mobility also start off-map (no range need be specified).

# FIGHTING THE BATTLE

The battle is fought in rounds of about five minutes each. A round is divided into turns; each side gets one turn. The side that won initiative in the Reconnaissance Contest takes its turn first. If initiative was tied, the side that set up first takes the first turn. Each turn has five phases.

1. Air Phase (below).
2. Fire Combat Phase (below).
3. Movement Phase (pp. 26-27).
4. Enemy Air Exit Phase (p. 27).
5. Close Combat Phase (p. 28).
6. Pin Recovery (p. 28).

It is then the other force's turn. Once each force has its turn, the round ends and another begins, repeating the sequence. "Acting side" is the side whose turn it is.

## **AIR PHASE**

The acting side's commander may optionally move any of his Slow Air or Fast Air elements that are available off the map onto the battlefield. They can be placed at any point on the battlefield, ideally in range of targets they intend to attack (or spot).

## **FIRE COMBAT PHASE**

Any of the acting side's elements with Air, Artillery, Fire, Neutralize Armor, or Neutralize Air classes may make Fire attacks once during this phase (but a "DO" on the *Fire Combat Results Table*, p. 27, may allow more attacks). The target must be a specific enemy element that is at least two hexes distant and within range (see p. 26).

Elements can attack in whatever order is desired. No element is *required* to attack. Up to four elements of identical type (e.g., four APCs) within two hexes of each other (or all off map) may combine TS in a single attack. Other restrictions are:

- Fast Air elements can only be attacked by elements with the Neutralize Air class.
- If an element *lacks* the Fire classes but is able to attack because it has Air, Neutralize Armor, Artillery, or Neutralize Air classes, restrictions apply (see below). Should an element have a combination of Air, Neutralize Armor, Neutralize Air, and Artillery classes (but lack Fire class), use whichever is most favorable against the target.

*Neutralize Armor:* An element with the (Arm) class lacking Fire only gets its full Troop Strength (TS) if its target is of Armor class. Otherwise it gets 10% of TS.

*Neutralize Air Attack:* An element with the (Air) support class lacking Fire can only attack targets with Fast or Slow Air mobility.

*Artillery:* An element with the Artillery class lacking Fire can only attack targets at least three hexes distant.

*Air:* An Air element lacking Fire uses only 50% of TS.

## Fire Range

Range depends on the Weight (WT) of the element, its firing class, and TL.

If a weapon falls under multiple classes use the best range.

*Example:* A main battle tank at TL7+ is Fire class. It has WT 8 and is Mechanized mobility, so range is  $4 \times 8 = 32$  hexes. A TL6 light artillery element has a TS 60; it is Artillery class, so range is 30 hexes. A TL6 HSW is Fire class and WT 0.5, but since it has Foot mobility, treat it as WT 2; the range is  $3 \times 2 = 6$  hexes.

## Fire Range Table

Firing Class	TL0-4	TL5	TL6	TL7+
Element has Fire class	WT	2 × WT	3 × WT	4 × WT
Element has Air or Neutralize Air class	WT	2 × WT	3 × WT	10 × WT
Element has Neutralize Armor class	WT	2 × WT	3 × WT	5 × WT
Element has Artillery class	2 × WT	TS/2	TS/2	TS/2

# × WT means the hex range is based on the Transport Weight statistic. However, treat all Mounted or Foot elements as WT 2 regardless of their actual WT.

TS means the hex range is based on the TS as modified by TL but no other factors.

## Fire Combat Resolution

Add the TS of the firing element(s) attacking the target element, and apply modifiers to TS (see below). Then calculate a fire combat ratio by dividing the attacker's modified TS by the target's modified TS. Find that odds ratio on the *Fire Combat Results Table* (p. 27); if the ratio falls between two columns, round in the defender's favor.

### Modifiers to the Firing Element TS

- Halve attacking TS of an element using fire combat at night unless it has the Night feature. (The reverse applies to Nocturnal elements firing at day.)
- Halve TS of an element using fire combat to attack into a Woods or Built-Up hex unless target has Fast Air or Slow Air mobility.

### Modifiers to the Target Element TS

- Double the defending TS of Foot elements in Built-Up terrain.
- Double the defending TS of Mechanized or Foot elements in earthworks.
- Defending *land* support elements use 50% of TS.

### Example

An element of TL7 riflemen with TS 80 and Fire class attacks a TL2 heavy infantry element with TS 4. There are also three other such elements in the same hex, but only one is attacked. The odds are 20:1! The player rolls a 6, getting a "DO" result. This obliterates the element and allows an immediate second attack at half TS, or 10:1; the roll is 8, another "DO." It then makes a third attack at 1/4 TS, using TS 5:1 odds, and gets a 7, a mere "DE" result. The third target is eliminated, but the riflemen must stop attacking now.

## Artillery and Fast-Air Spotting Restrictions

Artillery can only engage ground targets that are also within "spotting range" of themselves (unless they are also off-map) or another friendly "spotting" element.

Trace a path between the spotting and target element. Spotting range is 10 hexes. Add 10 hexes for C3I or Recon elements; add 10 hexes for elements that occupy High Ground or are Fast or Slow Air elements. The spotting range path can pass into but not through Woods, Built-Up, or High Ground hexes.

## Engaging Off-Map Elements

Artillery may be used to attack any enemy off-map artillery that fired on the previous turn. Calculate range to the map edge and then add the recorded distance the targets are off of the map.

## MOVEMENT PHASE

The acting side's commander may move some, none, or all of his elements. Each moving element may travel through a number of consecutive hexes by spending Movement Points. As in the tactical combat system in the *Basic Set*, Movement Points determine the maximum hexes of clear terrain the element can enter in a turn.

The number of Movement Points an element has depends on its mobility, as shown on the *Movement Table*, below. An element cannot transfer Movement Points nor accumulate them from round to round. A side can advance or retreat off a map edge, but if it does so, it can't reenter later. The GM can make exceptions if willing to extend the map board as the battle progresses.

### Movement Table

Mobility	Movement Points
Foot	2
Mounted	3
Mechanized	6
Motor	5
0	Cannot move
Slow or Fast Air	Moves in Air phase

### Other Movement Rules

*Stacking:* No more than four friendly elements may end their movement phase in the hex at the same time (excluding Slow or Fast Air elements, or Hero elements).

*Friendly Elements:* An element may freely move through a hex occupied by friendly elements. It may end its movement in such a hex subject to stacking limits.

## Fire Combat Results Table

Roll 2d to resolve fire combat. If a ratio falls between two values use the lower; e.g., 7:1 is treated as 5:1. If the ratio is less than 1:10 on this table, there is no effect.

2d	1:10	1:5	1:3	1:2	1:1	2:1	3:1	4:1	5:1	10:1	20:1+
2-	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	P
3	NE	NE	NE	NE	NE	NE	NE	NE	NE	P	P
4	NE	NE	NE	NE	NE	NE	NE	NE	P	P	DE
5	NE	NE	NE	NE	NE	NE	NE	P	P	DE	DE
6	NE	NE	NE	NE	NE	NE	P	P	DE	DE	DO
7	NE	NE	NE	NE	NE	P	P	DE	DE	DO	DO
8	NE	NE	NE	NE	P	P	DE	DE	DO	DO	DO
9	NE	NE	NE	P	P	DE	DE	DO	DO	DO	DO
10	NE	NE	P	P	DE	DE	DO	DO	DO	DO	DO
11	NE	P	P	DE	DE	DO	DO	DO	DO	DO	DO
12+	P	P	DE	DE	DO	DO	DO	DO	DO	DO	DO

### Table Abbreviations

*NE*: No effect.

*P*: Defender Pinned. The target element is pinned down or (if flying) forced to evade. Place marker (e.g., a coin) or flip it over to show its status. If an element receives a second “P” result while still pinned, treat it as “DE” (below).

*DE*: Defender Eliminated. The element is destroyed; all personnel are casualties or run away.

*DO*: Defender Obliterated. As “DE” result, but the defending element also is wiped out so rapidly that the same firing element or element may attack *again* against any additional enemy target that occupies either the same or an adjacent hex. However, this attack is at half TS, rounding down. Repeated “DO” results are possible until TS drops to zero, until a result other than “DO” is scored, or until there are no valid targets.

*Enemy Elements*: An element must *stop* upon moving adjacent to a hex occupied by enemy elements. It may not enter an enemy element’s hex. It may leave a hex adjacent to an enemy if it began there at the start of its movement phase, unless Impetuous or Fanatic.

*Mounting a Transport*: If an element yet to move starts its Movement phase in the same hex as a friendly Transport element that has also not yet moved, it may board it. It can’t exceed the transport’s weight capacity. This uses up all the boarding element’s Movement Points. The transport may move after being boarded, but is considered to have expended half (round up) its Movement Points that turn.

*Elements on a Transport*: An element aboard a Transport element moves with that element, is destroyed if the Transport element is eliminated, and cannot contribute TS when attacking or defending.

*Dismounting a Transport*: It costs the transport one Movement Point to disembark one or more elements in a given hex. An element that disembarks cannot move that turn.

*Terrain*: Terrain other than Clear may cost more than 1 Movement Points to enter. See the *Terrain Effects Table* (below). If an element cannot pay the cost, it may not enter. Elements with the Hovercraft feature ignore Stream effects, and treat Water as Road terrain and Swampland as Clear terrain, but pay +1 MP to enter High Ground or Woods terrain.

*Road*: An element may use the Road cost if it followed the road, moving from one Road hex to adjacent Road hex, ignoring underlying terrain.

*Stream*: Adds to the cost of entering the hex when crossing the Stream hex side.

*Water*: Full Water hexes are impassable unless a road crosses them (representing a bridge).

## ENEMY AIR EXIT PHASE

In this phase the other side’s Air elements are removed from the map. When an element is removed from the map, roll 1d. On a 1-3, it may *not* reenter again during this battle, though it is not destroyed. Otherwise, it may do so in its next Air phase.

## Terrain Effects Table

This table shows the Movement Point (MP) cost to enter a hex with that terrain.

Mobility	Clear	High Ground*	Stream	Woods*	Built-Up	Road	Swampland*
Foot	1	2	+1†	2	1	1	2
Mechanized	1	2	+1	2	2	1	5
Motorized	1	3	+1	3	1	1/2	4
Mounted	1	3	+1	2	1	1/2	2

\* Treat as Clear if element has terrain advantage (Mountain for High Ground, and Jungle or Woodlands for Woods, as appropriate).

† To maximum 2 MP.

## CLOSE COMBAT PHASE

In this phase, elements of the acting side may attack any adjacent enemy-occupied hexes using the *Close Combat* rules.

*Exception:* Support elements (parenthetical TS) may not attack in close combat.

Unlike fire combat, in close combat, an entire enemy hex is the target, rather than a specific element. All enemy elements occupying that hex are attacked at once.

Attacking elements may attack in any order. Multiple elements may join together as a combined attack against the same hex, combining TS. Attacking is optional, with one exception: Impetuous or Fanatic elements must attack if they can do so.

Defending elements in the same hex add their TS together.

### Close Combat Attacker Modifiers to TS

- Elements with Mounted, Motorized, or Mechanized mobility halve TS when attacking into Built-Up or Swamp land.
- Elements with Foot or Mounted mobility halve TS if attacking into High Ground terrain (unless also in High Ground) or across a stream.

### Close Combat Defender Modifiers to TS

- Elements with Foot mobility double TS if defending Woods hexes and triple TS when defending Built-Up hexes.
- Foot and Mechanized elements defending hexes with earthworks double their TS.
- Defending support elements (parenthetical TS) use only 10% of their TS.

## Resolving Close Combat

Total the TS of all friendly elements attacking into the hex. Total the TS of all defending elements in the hex; apply the above TS modifiers.

Divide the attackers' TS by the defenders' TS to find a combat ratio. Round in the defender's favor. Look up that

ratio and roll 2d on the *Close Combat Table* (below) to determine the combat result. "AE" or "AR" results affect all attacking elements. "DE" or "DR" results affect all defending elements. Fanatic elements ignore "DR" results but treat "AR" results as "AE."

*Advance After Combat:* If defending elements were forced to retreat or were eliminated, attackers may advance into the vacated hex, to a maximum of its stacking limit. Fanatic and Impetuous elements always advance (and must do so first) if stacking permits.

### Example

Ten elements of TL2 heavy infantry with TS 4 each and two of Impetuous TL2 heavy cavalry with TS 5 are adjacent an enemy-held High Ground hex. The cavalry, being impetuous, must attack. The commander decides the others will also. The enemy has one element of TL7 riflemen with TS 80 and a TL7 command post with TS (100).

The attackers total TS 50. As they attack into High Ground, their strength is halved to TS 25. The defending riflemen get full TS 80 but the command post, with parenthetical TS, drops to TS 10, for a total TS of 90. The odds are 25:90, which rounds in the defender's favor to 1:5. The acting side's player rolls 11: "DR." The riflemen and command post must retreat two hexes. The defenders were not surrounded, so the riflemen can do so, but the command post has mobility 0 and can't retreat. It is eliminated.

The two heavy cavalry must advance into the vacated hex since they are Impetuous; the commander also has two infantry do so. No more can due to the stacking limit.

## PIN RECOVERY PHASE

Friendly Pinned elements recover (and are free to attack on the next turn) unless adjacent to enemy elements.

## Close Combat Table

If the ratio is less than 1:20 on this table, treat as 1:20. If more than 20:1, treat as 20:1.

2d	1:20	1:10	1:5	1:3	1:2	1:1	2:1	3:1	4:1	5:1	10:1	20:1+
2-	AE	AE	AE	AE	AE	AE	AE	AR	AR	AR	NE	DR
3	AE	AE	AE	AE	AE	AE	AR	AR	AR	NE	DR	DR
4	AE	AE	AE	AE	AE	AR	AR	AR	NE	DR	DR	DR
5	AE	AE	AE	AE	AR	AR	AR	NE	DR	DR	DR	DE
6	AE	AE	AE	AR	AR	AR	NE	DR	DR	DR	DE	DE
7	AE	AE	AR	AR	AR	NE	DR	DR	DR	DE	DE	DE
8	AE	AR	AR	AR	NE	DR	DR	DR	DE	DE	DE	DE
9	AR	AR	AR	NE	DR	DR	DR	DE	DE	DE	DE	DE
10	AR	AR	NE	DR	DR	DR	DE	DE	DE	DE	DE	DE
11	AR	NE	DR	DR	DR	DE	DE	DE	DE	DE	DE	DE
12+	NE	DR	DR	DR	DE	DE	DE	DE	DE	DE	DE	DE

### Table Abbreviations

*AE:* Attackers Eliminated. Remove them from the battle. PCs in the element take 4d-4 injury.

*AR:* Attackers Retreat. All attacking elements must retreat one hex. If an element has mobility 0 or cannot retreat without moving into or adjacent to an enemy unit's

hex, or into a hex that it cannot enter (e.g., Water), it is eliminated as above.

*NE:* No effect.

*DR:* Defenders Eliminated. As "AR," but applying to all defending elements.

*DE:* Defenders Retreat. As "AE," but applying to all defending elements.

## Force Commander

Each side has one commander. He must accompany an element.

*Starting Command Points (CP):* Divide the commander's (Leadership + Strategy) skill by four, dropping fractions. This is his CP pool to spend on various command tasks. At TL5-, the commander can only affect an element if within 10 hexes of it. At TL6+ he needn't be, but if not, the CP cost triples (at TL6) or doubles (at TL7+).

*CP in Combat:* Before dice are rolled for any particular attack, a commander may announce he is spending a CP to add a +1 modifier (if his side is attacking) or -1 (if his side is defending) to the roll. No further modifier may be applied to a single combat roll, but multiple combats may be influenced. Obviously, if both commanders spend CP, modifiers cancel out.

*Rally:* A commander may spend CP to get a demoralized element on his side to attack or move adjacent a foe, or move in a way that is not closer to his own map edge.

*CP and Movement:* During the Movement phase, a commander may spend a CP to let a given element take its move twice (in that phase only). No single element can do this more than once a turn, but several may be affected.

### Regaining CP

Once spent, CP is not regained unless the commander takes time to *plan*. To plan, he may not have used CP this turn and his element may not have attacked or moved (if Foot or Mounted). In the Pin Recovery phase, make a Strategy roll. Success regains 1 CP; success by 5+ or critical success regains 2 CP. If he is currently with a C3I element, add its TL/2 to his skill.

*C3I Superiority:* If one side has at least twice the TS of the other's C3I element (or the enemy has none) it regains an extra CP each turn.

### Other Rules

If a commander's element is eliminated, a new commander can be appointed. He starts with CP 0. He may recover CP by planning as described previously, up to his normal maximum. (Assume Strategy and Leadership 1d+8 if statistics are unavailable.)

The GM may allow a force to be broken into multiple smaller forces each with their own commanders, which operate independently but are allied. If so, divide the starting CP by the total number of allied commanders to reflect disunity of command!

### General PC Rules

Any PCs or major NPCs on the battlefield – including but not limited to the force commander – must be assigned to specific elements. They may switch elements if both begin the Movement phase in the same hex.

*Non-Hero Elements:* If a PC (including the overall commander) is leading a non-Hero element, multiply its TS by his (sum of Tactics + Leadership)/20, and let the player roll any dice when it is attacking. If eliminated, assume PCs in it take 6d-6 HP of injury.

*Hero Elements:* The element's TS represents the character(s) involved. If it is eliminated, characters in it are assumed reduced to -2d HP and unconscious.

At any time the GM can opt to "pause" the war-game action and switch to regular **GURPS** rules; remember that each "tactical combat" turn is about 300 seconds.

# WINNING AND LOSING

A force loses if all elements are eliminated or retreat off the battlefield. The GM may also rule a demoralized force (see below) has lost, or set other conditions for victory, such as capturing a particular Built-Up area or advancing a certain number of elements off a particular map edge.

*Demoralization:* The first side in the battle with over half its elements eliminated *and* losing more elements than the enemy is demoralized. All elements not Elite, Fanatic, Hero, or accompanied by PCs cannot attack or move adjacent to an enemy element; if their side has a home map edge, any movement must bring them closer to that edge or off it.

## AFTER THE BATTLE

Elements that were eliminated or obliterated are lost. Elements that fled off the map can be retrieved to fight again. When looting the battlefield, use 1/5 of the value of eliminated

elements. If one side is wiped out (100% casualties), so is its logistic force.

## 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*. Upon graduating from university, he decided to become a game designer. Since then, David has written over 70 roleplaying game books, and he has worked as a staff writer, editor, and line developer for Steve Jackson Games and Guardians of Order. 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*, *GURPS Ultra-Tech*, and the *GURPS Spaceships* series.

# ABSTRACT WEALTH

BY JASON BRICK

Quick: How much money do you have?

Not how much cash you have in your pockets, or your monthly take-home. How much, to the penny, could you spend right now if you really needed to? Unless you suffer from severe and focused obsessive-compulsive disorder, you don't know the answer. You have a general idea of how much you can afford, but the sum total of your income, savings, and access to credit is a complex calculation. Worse, it changes day by day as money flows through your various accounts and responsibilities.

Tracking wealth in some campaigns could become just as complex. For example, realistically depicting the finances of a 21st-century secret agent would take bookkeeping on a level that feels like a part-time job. People who want to track finances that carefully become accountants – and even they rarely want to do it as part of a roleplaying game.

The existing *GURPS* wealth rules work fine for settings with simple societies, or for treasure-hunting campaigns where accumulating loot is part of the story. For games in complex cultures, or where money is a background resource supporting the action, an abstract wealth system is a workable solution. It simplifies a less important part of game play while simultaneously better reflecting the reality of modern money.

*Wealth – any income that is at least one hundred dollars more a year than the income of one's wife's sister's husband.*

– H.L. Mencken

## THE WEALTH CHARACTERISTIC

Under these optional rules, Wealth is a secondary attribute, similar to Hit Points or Perception. It represents the sum total of someone's resources: cash on hand, accessible bank accounts, saleable assets, available credit, and money people owe them. The specifics vary from campaign to campaign, according to tech level.

*Example 1:* A TL4 merchant's Wealth characteristic would represent cash reserves, stocks of sales goods, and credit with various banks or other merchants. The wealth of a thief in the same world would include personal treasure, a hoard of easily sold booty, and possibly access to the resources of a local thieves' guild.

*Example 2:* The wealth of a cop in a TL9 society would represent his salary, plus a combination of savings accounts and access to consumer credit. For a petty thief, his wealth would consist almost entirely of cash on hand and money other crooks owe him – plus a small stash of drugs he hasn't used yet.

*Example 3:* A TL12 captain of industry would have a fortune so complex parts of it would be publicly traded on a galaxy-wide net, including dozens of accounts and stock in hundreds of companies. Making large purchases might include liquidating entire corporations.

In all cases, using the Wealth characteristic gives money in-game context and meaning without requiring somebody to track all the cash.

The default Wealth score is 10, and can be increased or decreased like other secondary characteristics. Use the chart below to buy Wealth under this system.

### Abstract Wealth

Score	Cost
5 (Homeless)	-40
6 (Destitute)	-30
7 (Working Poor)	-20
8 (Working Class)	-15
9 (Tradespeople)	-10
10 (Middle Class)	0
11 (Working Rich)	10
12 (Wealthy)	20
13 (Very Wealthy)	30
14 (Millionaire)	50
15 (Multimillionaire)	75
16 (Billionaire)	100
17 (Multibillionaire)	125
18 (Megacorporation)	150
19 (Small Nation)	175
20 (Medium Nation)	200
21 (Large Nation)	225
22 (Wealthy Nation)	250
23 (Multiplanetary Empire)	275
24 (Galactic Empire)	300

# WEALTH ROLLS

Whenever an adventurer wants to buy something, roll against the Wealth score just like any other skill or characteristic. A success means he buys the item. Failure means he can't afford it right now. The particulars of the purchase are up to the player and GM. A successful purchase could mean using a credit card, spending pocket money, or calling in a loan. A failure could mean being refused credit, running out of cash a week before payday, or even identity thieves emptying accounts. In some campaigns, the roll lets a group gloss over the details. In others, the results create color and detail for later action.

Just because somebody can afford something doesn't mean it's a good idea to buy it. Each level of Wealth has a Threshold Value that represents how much someone can spend; see the table below.

Every time a person makes a Wealth roll, compare the purchase price of the item to the Threshold Value for his Wealth to determine how easily he can purchase that item.

## Normal Purchases

These are items that cost enough to hurt, but are normally within the reach of a buyer – so long as doesn't try buying too many in a given pay period. They consist of anything that costs equal to or less than the Threshold Value for the adventurer's Wealth level, but more than half the Threshold Value. A TL9 cop with a Wealth of 10 makes normal purchases for anything costing between \$250 and \$500.

A *critical success* buys the item with no penalty for future purchases.

A *success* buys the item, but gives -1 to Wealth rolls for one month. All penalties for purchases are cumulative – someone who has made three normal purchases is at a -3 to Wealth rolls to make a fourth.

A *failure* doesn't buy the item. Try again after one week.

A *critical failure* doesn't buy the item, but carries the same penalty as a success.

## Cheap Purchases

A lot of things are affordable most of the time, and have only a small effect on an overall budget. These items cost between 1/10th and 1/2 of the Threshold Value for the Wealth level of the person attempting to buy them. A TL8 dockworker with a Wealth of 7 makes cheap purchases for things that cost between \$4 and \$20.

A *critical success* buys the item with no penalty for future purchases.

A *success* buys the item, and gives -1 to Wealth rolls for one week.

A *failure* doesn't buy the item. Try again in a day.

A *critical failure* doesn't buy the item, but carries the same penalty as success.

## Trivial Purchases

At any level of income, people can afford to throw away some amount of money without thinking about it. This represents the beer at the end of the day, that magazine at the check-out stand, and similar acquisitions that have no real effect on everyday spending. Anyone can make trivial purchases for stuff that costs 1/10th or less of their Threshold Value.

A person can easily buy on demand items this inexpensive, or he already has laying around the house. In either case, assume it takes about 10 to 30 minutes to acquire such an item under normal circumstances.

This applies only to regular personal purchases of inexpensive items. Stockpiling small things – ammo, for example – requires a Wealth roll based on the total amount a person wants to buy. A TL9, Wealth 12 bank manager can buy his gourmet latte every day – but would have to stretch to buy one for everybody in the company.

This rule never circumvents logistic, legal, or licensing issues that accompany buying some items. The cost of a surface-to-air missile might be trivial to a billionaire, but waiting periods and legal restrictions still apply. In some cases, the process for getting an item might include licensing fees, bribes, and other expenditures that are themselves individual purchases.

## Expensive Purchases

Sometimes people have to spend more than they have. A car might need emergency repairs. An adventure could require expensive equipment. A favorite dependent might need a rare costly herb to recover from illness. Whatever the reason, this means taking on credit or financial risks that affect spending well into the future.

For items above the Threshold Value for a character's Wealth level, apply -1 to the attempt to buy that item. At double the Threshold Value, and each subsequent doubling, increase the penalty by 1.

## Threshold Values for Abstract Wealth

Score	TL4	TL5	TL6	TL7	TL8	TL9	TL10	TL11	TL12
5	\$0.10	\$0.35	\$0.50	\$0.65	\$0.80	\$1	\$1.50	\$2	\$3
6	\$1	\$3	\$5	\$6	\$8	\$10	\$15	\$20	\$30
7	\$5	\$15	\$25	\$30	\$40	\$50	\$65	\$100	\$150
8	\$10	\$30	\$50	\$60	\$80	\$100	\$130	\$200	\$300
9	\$25	\$85	\$125	\$150	\$200	\$250	\$325	\$500	\$750
10	\$50	\$150	\$250	\$300	\$400	\$500	\$700	\$1k	\$1.5k
11	\$100	\$300	\$500	\$600	\$800	\$1k	\$1.5k	\$2k	\$3k
12	\$250	\$750	\$1.5k	\$1.8k	\$2k	\$2.5k	\$4.5k	\$6k	\$7.5k
13	\$500	\$1.5k	\$3k	\$3.5k	\$4k	\$5k	\$9k	\$12k	\$15k
14	\$1k	\$3k	\$6k	\$7k	\$8k	\$10k	\$20k	\$25k	\$30k
15	\$10k	\$30k	\$60k	\$70k	\$80k	\$100k	\$200k	\$250k	\$300k

Multiply the Threshold Value of the previous level by 10 for Wealth scores above 15.

*Example:* A TL10 computer programmer with a Wealth of 12 has a Threshold Value of \$700. Items costing between \$701 and \$1,399 give -1 to his Wealth roll. Those costing \$1,400 to \$2,799 are at -2. From \$2,800 to \$5,599, purchases are at -3.

A *critical success* gets the item, and imposes -1 on Wealth rolls (cumulative with all other penalties to Wealth) for a number of months equal to the penalty on the attempt. It does not actually reduce your Wealth score – your Threshold Value does not change.

A *success* is treated as a critical success, except the -1 *does* reduce your Wealth score (and thus your Threshold Value).

A *failure* doesn't buy the item. Try again in a month. If the penalty on Wealth was -3 or lower, the attempt inflicts -1 on Wealth rolls for one month.

A *critical failure* doesn't buy the item, but inflicts the same penalties as a critical success.

### *Quirks and Perks*

A +1/-1 modifier to certain kinds of purchases makes for good color and characterization. Somebody with a background in one industry will know the best dealers and values, for +1 to Wealth for that kind of item. A car maven might have -1 for automotive purchases, reflecting a tendency to go for the high-ticket roadsters rather than affordable, reliable transportation.

## **WEALTH IN PLAY**

Buying stuff using abstract wealth can speed play and let groups focus on the aspects of the game they find most interesting. Some special situations call for detailed treatment to avoid bogging down play, or unscrupulous players taking advantage of "loopholes" in the system.

### *Living Below Your Means*

These rules assume the person is living a typical lifestyle for his level of income. Anybody can choose to live below that lifestyle for as long as he likes, rolling all Wealth attempts and making trivial purchases as though his Wealth score was lower.

For each month of living like this, an adventurer gains a one-time +1 to a single purchase attempt for every point of Wealth he lived below his "natural" score. A Wealth 11 spy living at Wealth 8 would get a total of +3 per month.

Players can choose to spread that bonus over multiple rolls, or save for a large bonus on a single important purchase. Like many people in real life, they can also use this bonus to mitigate the penalties from earlier expensive purchases.

If someone has Status, Rank, or Reputation, living below a certain level may reduce or eliminate those benefits until the person returns to living the lifestyle to which he has led others to believe he is accustomed.

### *Windfalls*

Campaigns where loot and other cash infusions are a regular part of the game don't mesh well with these rules. Getting,

splitting, and spending the booty is a reward of the adventure, and abstracting wealth tends to devalue that.

If a game has occasional cash rewards, it's easiest to let the group spend that cash on specific purchases. Just make certain the cash infusions are significant enough to let them buy something normally beyond the reach of their Wealth.

### *Pooling Resources*

Party members will inevitably want to combine their assets to afford larger purchases. Handle this by subdividing the total cost of an item and having individuals make a Wealth roll for their part of the total bill. Let the group split the shares among themselves as they see fit. When pooling resources, it's never possible for a purchase to qualify as trivial. Even a share that would normally qualify as such would instead be treated as cheap.

### *Time Frame*

Abstracting how much an item costs doesn't mean it appears instantly in a shopper's hand. The GM should assign a reasonable time frame for any given purchase. It only takes half an hour to pick up a nail gun at a big-box hardware store, but even paying cash for a car takes the better part of a day. Buying a house or business can take weeks and even months.

### *GM Discretion*

Like other abstract rules, this variant relies on GM judgment to make it work. A GM is well within his rights to rule that a certain purchase is trivial, impossible, or otherwise handled differently than the system suggests. The GM should also feel free to assign ad-hoc bonuses and penalties to reflect an item's availability, limited access to character wealth, market forces and other factors. A trillionaire alone in a firefight has no more options than a street urchin in the same situation.

Always keep in mind that these rules are intended to streamline accounting in the game, not to sidestep a problem or challenge. An adventure designed around resource management should never get bypassed by a simple Wealth roll. Be sure to build resource challenges fully aware of how much cash the party can bring to the table!

### *Other Resources*

It's easy to apply this idea to nonfinancial resources, creating similar systems to manage someone's influence, social status, or pull within an organization. In a complexly social campaign, each adventurer might have a different score to represent his Status with a dozen or more factions.

## **ABOUT THE AUTHOR**

Jason Brick is a freelance writer whose 30-year gaming habit has included all four versions of *GURPS* and countless other systems. His work can be found in print and dead tree magazines worldwide. In his spare time, he enjoys travel, martial arts, and time with his family. Read more at his blog, [brickcommajason.com](http://brickcommajason.com).

# RANDOM THOUGHT TABLE

## A NICHE TO SCRATCH

BY STEVEN MARSH, *PYRAMID* EDITOR

This is a slightly different *Random Thought Table* for me. It began as a thought exercise that started with me thinking, “How metagamey can I get, yet still have a workable game concept?”

### EVERYONE IS GOOD AT SOMETHING

When I was playing in my early super-gaming days, I’d often have a problem where players would “defy” my expectations by stepping around the dangling plot possibilities I put in front of them. For example, the PCs might know that a crucial secret is in the head of the captured spy, but rather than allow the mind-reader to discover it (as I’d planned), the bruiser – played by someone more assertive – just started trying to beat it out of him.

Here, then, is a modest attempt at codifying an attempt at protecting player-defined roles in a game.

#### *New Perk: Niche Protection*

You have a skill, ability, or aspect that is “yours.” Other people may have that ability – perhaps even at levels better than you – but when the campaign world thinks about someone with that ability, it thinks about *you*. Perhaps the best way to look at this ability is to envision the beginning of a movie where someone is picking up a phone and saying something like, “We need the world’s foremost expert on [BLANK],” or “There’s only one person who knows this much about [BLANK]” . . . or even “Who would be [BLANK] enough to accept this mission?!” The scene then shifts to you, and the filled-in blank is the niche-protected ability.

This perk can be bought multiple times, but it must be purchased separately for each trait: attribute, skill, power, advantage, etc. It can also be purchased for abstract concepts: radiation, metahuman relations, number-based crimes, or xeno-anthropology.

Note that you can have this perk even if you aren’t particularly good at the trait in question!

*Example:* Professor Gizmo has Niche Protection (Detective). However, he only has Detective-12, and he relies on

Serendipity, Klutz, and (unknowingly) his niece Shilling to resolve most cases.

Niche Protection can even be acquired for disadvantages and rules – such as “takes extra time” or “fanning a firearm” – with the GM’s permission.

Each version of this perk is unique in the game world. If one of the PCs has Niche Protection (Diplomacy), then no one else may have Niche Protection (Diplomacy). However, if someone with a Niche Protection dies or somehow relinquishes the title, it’s up for grabs again.

If an ability or skill requires specialization, this perk does *not* require specialization! In that case, it represents the world recognizing you as the foremost expert/authority on the broad skill. (Presumably you have a number of specialized versions of that skill to make it worthwhile.) However, if you don’t buy a specialization, then you open yourself up to some other character having the perk with that specialization. In that case, the world still recognizes both your authorities as best it can; it considers you as the foremost (say) Engineer, but there might still be someone else out there with Niche Protection (Engineer (Clockwork)). This same concept applies if someone has Niche Protection (Dexterity – or Intelligence, etc.); the universe will shine on your efforts involving general Dexterity-based things, but you can still be overshadowed by someone using Dexterity for a nongeneral purpose.

By itself, this perk does not bestow any Reputation (although someone can certainly buy Reputation that covers the same ground); most people simply don’t care that you’re the foremost expert on shuttlecraft piloting. However, the *universe* cares, and it will go out of its way to ensure that you have a moment to shine.

#### Game Effects

This perk doesn’t generally give any bonuses to actions related to the niche protection. Rather, its effects are subtler.

1. At least once an adventure (or once every other adventure, in the case of larger gaming groups), an opportunity will arise that directly relates to one of your Niche Protections. Depending on the niche, it may be a good chance for the adventurer to earn bonus character points for good roleplaying.

This doesn't mean that you will be successful in what you do . . . it merely means that you will get an *opportunity* for you to shine.

2. If anyone attempts to step on the toes of your Niche Protection while within the boundaries of your adventure, they roll as normal; however, if successful, the margin of victory is reduced by 5 (minimum margin of 0). This effect happens even if the two individuals are acting *with* each other! Even if the person without Niche Protection is successful, the universe agrees that you would have done it better. (If you still find yourself being upstaged even as the holder of Niche Protection, those penalties might eventually get worse or more overt . . .) This effect takes place even if different methods are being used to step around your Niche Protection; if a love-seeking guard is watching over a locale, an adventurer with Niche Protection (Seductress) may find this aspect of protection preventing another hero from just effortlessly knocking him out. This ability manifests as needed for any specific Niche Protection, but for broader abilities – a specialty-requiring skill taken without a specialty, an attribute, etc. – it might only show up once per adventure.

3. If circumstances attempt to conspire to toss you out of a role in which you have Niche Protection, the universe will give you ample opportunity to maintain and retain that niche, even if logic dictates otherwise. For example, if you have Niche Protection (Billionaire Playboy), then – in addition to being one of the first names the world thinks of when it thinks of Billionaire Playboy – you'll also be given many opportunities to retain your billionaire-playboy status, even if you ignore your finances, blow off board meetings, and ignore hostile takeovers so you can devote more time to dressing like a ferret and fighting crime.

4. At the GM's discretion, purchasing Niche Protection may be the only way to buy other abilities, such as related Perks from *GURPS Power-Ups 2: Perks*, some (or all) of the point-buy abilities found in *GURPS Power-Ups 5: Impulse Buys*, and the like . . . but only as they relate to the Niche Protection.

*Example:* Hank Solitaire is a very good interplanetary smuggler. He has Niche Protection (Smuggling) and Niche

Protection (Heart of Gold). He doesn't have a wide Reputation for either of these; the former he tries to keep quiet (although enough people know that it gets him in trouble), and he actively denies the latter. He and Dee Pockecz have both been hired – independently – to smuggle contraband past the forces of the Galactic Federation. He and Dee Pockecz both have Smuggling-16; separately, both of them are equally good at what they do, but in this head-to-head situation, Hank will come out on top. The universe (in the abstract sense) thinks of Hank as being the better smuggler.

The GM may require this perk to be purchased in levels. In this case, each level of Niche Protection must be repurchased once each “season” of play (or once per adventure, in the case of an ongoing series of one-shots). Otherwise, the Niche Protection is lost (although it may be purchased again in the future if it's still available). If the Niche Protection isn't paid for, its effects disappear. However, any previously purchased levels of Niche Protection remain on the character sheet; each level serves to counteract -1 of the margin-of-victory penalty bestowed by the Niche Protection of the current holder (to a total of no penalty). Note that under no circumstances does a previously held Niche Protection “trump” the abilities of the current niche-protected character, even if the previous holder has Niche Protection at a higher level; at best, the universe will see the two individuals as both being awesome.

*Example:* Barton Le Var is one of the most renowned starship engineers in the galaxy; he's been doing this for six “seasons,” and has Niche Protection (Starship Engineer) 6 to prove it. In one adventure, he meets Jim Doohney, who was the most renowned starship engineer of the *previous* generation. Doohney had worked his magic far longer than Barton, and had Niche Protection (Starship Engineer) 9 when he got out of the action (and stopped paying for the Niche Protection). In this case, the universe still “smiles” on Barton; the universe will ensure that Barton has a chance to shine, and Doohney and Barton can work together . . . and neither will upstage the other.

## Game Use

Besides the game benefits, Niche Protection provides a way for the heroes to define (and remind) the gaming group of what they find important about their heroes. For example, if you are on a supers team and have Niche Protection (Speedster), then you'll be the go-to person for anything involving “point A to point B, quickly” . . . even if someone else has teleportation (but no Niche Protection), superfast flight, etc. Roleplay it!

In some character concepts, it's also a good way to help define why the universe seems to smile on people in a role, even though they are no good at it. If you're a surly-but-brilliant medical doctor with Niche Protection (Physician), then even as you ignore patients, belittle co-workers, and defy hospital regulations, the universe will still give you opportunities to continue to remain a doctor . . . which could, eventually, mean transferring to *another* hospital.

Finally, Niche Protection works well to help explain why someone *other* than the PCs gets the spotlight (even if it's off-camera). Sure, the heroes are saving the day as world-traveling mystics, but the world will never see them as cool or “go to” as Max Mentallo, world-famous mentalist.

The need to rebuy Niche Protection each “season” is a good way to remind players of their heroes' focus, and – if allowed to lapse – to show how the adventurer is refocusing or moving onto other pursuits. The length of a season is up to the GM and players. British campaigns tend to gravitate toward seasons that are six to 12 adventures in length, while American seasons tend to be 22-24 adventures.

## 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 10 years; during that time, he has won four Origins awards. He lives in Indiana with his wife, Nikola Vrtis, and their son.



# APPENDIX Z

# SURVIVABLE GUNS

BY DAVID L. PULVER

**GURPS** gun damage has been scaled with the weapon's penetration against hard armor. Since guns are so much better at penetrating armor than weapons such as swords or spears, this means modern rifles cause a great deal of injury. A high-power rifle will often do 5d to 7d damage, averaging 17-25.

While long guns are indeed deadly, it's arguable whether being hit by a rifle bullet in the torso is really *two to three times* more lethal than being run through by a sword (which after impaling modifiers averages about 9 points) or cut by an axe (averaging about 7-8 points) in the same location. High damage and the possibility of multiple hits can make shooting rifles a bit too much of a bloodbath for long-lasting campaigns.

Lethal guns do certainly encourage players to have their PCs use every possible tactic to maximize their own odds of surviving a fight, but they are not quite so much fun in more cinematic games where heroes like to trust in their Dodge and charge the enemy firing their pistols. Here is a variant for campaigns that might prefer realistic equipment but more cinematic in its preferred mode of play.

*Guns for cinematic campaigns.*

## REDUCED RIFLE DAMAGE

If much of the damage of high-velocity projectiles like rifle bullets represents penetration rather than injury, rescaling them so that they do less damage but have armor divisors will help keep characters – especially unarmored ones – alive longer in combat.

Guns firing relatively low velocity projectiles (under approximately 1,800' per second) have their dice of damage unchanged. This applies to pistols, shotguns, muskets, and submachine guns, with the exception of a few oddities firing very high-velocity projectiles like the 4.6mm PDW in the *Basic Set* (which was intended to represent the H&K MP7). Higher-velocity weapons – which includes most TL5+ rifles, carbines, and machine guns – have their damage modified. Halve their damage but give them a (2) armor divisor. For simplicity, round 1.5d to 1d+2. For more

detail, when considering weapons with damage adds like 5d+1, calculate the average damage at 3.5 per dice plus adds, halve it, and then assign a new dice + adds that is within a half point or so of this average.

*Example:* A rifle that does 5d+1 damage inflicts an average of 18.5 damage (3.5 per die + 1). Halved, this is 9.25. We could treat it as 2d+2 (average 9 damage) with a (2) armor divisor, but that would be the same as a 5d weapon, and we want to make a distinction. We round up and give the weapon 3d-1(2), an average of 9.5 damage.

The result is that the high-velocity-gun armor penetration stays almost exactly the same, so no changes are needed to basic **GURPS** assumptions or body armor rules, but lethality is significantly reduced when unarmored or lightly armored characters are the ones being shot. However, one shot to the head or vitals should still be more than enough to kill. Don't forget the added armor divisor also applies to the DR 2 of the skull! All modifiers for piercing damage types (e.g., large piercing) also still apply.

## Armor Piercing and Hollow Point Ammunition

When special ammunition is added to weapons with an intrinsic (2) armor divisor the following modifications are used:

*Armor Piercing Hardcore:* The (2) armor divisor becomes a (4) armor divisor.

*Hollow Point:* Instead of giving the attack a (0.5) armor divisor, the armor divisor is simply removed.

Similar rules can be applied to the various armor divisors in **GURPS High-Tech**.

## Gauss Guns

The gauss weapons are something of an outlier with an intrinsic (3) armor divisor that represents their innate use of high-velocity armor-piercing ammunition. To retain continuity with other weapon types, instead of halving damage, multiply gauss weapon damage by 0.75 while raising their armor divisor from (3) to (4).

## DAMAGE EXAMPLES

Here is how the damage of the *Basic Set* weapons would change (other stats are reprinted for your convenience). Note that the dart rifle is an obvious low-velocity weapon, so its damage is unmodified. The majority of *GURPS High-Tech* and *GURPS Ultra-Tech* weapons can be extrapolated from these values and the above guidelines.

### Revised GURPS Basic Set Gun Damages

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
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#### Submachine Guns

##### GUNS (SMG) (DX-4, or most other Guns at -2)

8	PDW, 4.6mm	2d+2(2) pi-	3	200/2,000	3.9/0.5	15	20+1(3)	7†	-3	2	\$800	2	
10	Gauss PDW, 4mm	3d(4) pi-	6+1	700/2,900	4.6/1	16	80(3)	9†	-3	2	\$3,600	2	[1]

#### Rifles

##### GUNS (RIFLE) (DX-4, or most other Guns at -2)

5	Rifle-Musket, .577	2d(2) pi+	4	700/2,100	8.5/0.05	1	1(15)	10†	-6	3	\$150	3	
5	Cartridge Rifle, .45	2d+2(2) pi+	3	600/2,000	6/0.1	1	1(4)	10†	-6	3	\$200	3	
5	Lever-Action Carbine, .30	2d+2(2) pi	4	450/3,000	7/0.3	1	6+1(3i)	10†	-4	2	\$300	3	
6	Bolt-Action Rifle, 7.62mm	3d+2(2) pi	5	1,000/4,200	8.9/0.3	1	5+1(3)	10†	-5	4	\$350	3	
6	Self-Loading Rifle, 7.62mm	3d+2(2) pi	5	1,000/4,200	10/0.5	3	8(3)	10†	-5	3	\$600	3	
7	Assault Rifle, 5.56mm	2d+2(2) pi	5	500/3,500	9/1	12	30+1(3)	9†	-4	2	\$800	2	[2]
7	Assault Rifle, 7.62mmS	3d-1(2) pi	4	400/3,000	10.5/1.8	10	30+1(3)	10†	-4	2	\$300	2	[2]
7	Battle Rifle, 7.62mm	2d+2(2) pi	5	1,000/4,200	11/1.7	11	20+1(3)	11†	-5	3	\$900	2	[2]
8	Assault Carbine, 5.56mm	2d+1(2) pi	4	400/3,000	7.3/1	15	30+1(3)	9†	-3	2	\$900	2	[2]
8	Sniper Rifle, .338	5d-1(2) pi	6+3	1,500/5,500	17.5/0.8	1	4+1(3)	11B†	-6	4	\$5,600	3	
9	ICW, 6.8mm	3d(2) pi	4+2	700/4,000	12/1.5	15	25+1(3)	10†	-5	2	\$7,000	1	[1, 3]
10	Gauss Rifle, 4mm	5d(4) pi-	7+2	1,200/4,800	8.5/1.4	12	60(3)	10†	-4	2	\$7,100	2	[1]

#### Machine Gun

##### GUNNER (MACHINE GUN) (DX-4, or other Gunner at -4)

6	HMG, .50	7d-1(2) pi+	6	1,800/7,400	116/32	8!	100(5)	20M†	-8	2	\$14,000	1	[4]
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##### GUNS (LMG) (DX-4, or most other Guns at -2)

6	Auto Rifle, 7.62mm	3d+2(2) pi	5	1,000/4,200	22/1.6	9!	20(3)	12B†	-6	3	\$6,500	2	
6	LMG, 7.62mm	3d+2(2) pi	5	1,000/4,200	30/6	15!	100(5)	13B†	-6	2	\$6,600	1	
7	SAW, 5.56mm	3d-1(2) pi	5	800/3,500	24/7	12!	200(5)	12B†	-6	2	\$4,800	1	

#### Notes

- [1] Includes "smartgun" electronics (see p. B278).  
 [2] Civilian semi-automatic version is RoF 3, -25% to cost, and +1 to LC.

- [3] Includes an integral 25mm grenade launcher (see p. B281).  
 [4] Detachable tripod weighs an extra 44 lbs.

## ABOUT THE AUTHOR

David L. Pulver has written over 70 roleplaying game books, and he has worked as a staff writer, editor, and line

developer for Steve Jackson Games and Guardians of Order. For more information about him, check out his *Eidetic Memory* column on pp. 24-29.

*Rodney McKay: You shot me.*

*John Sheppard: Yes, Rodney, I shot you, and I said I was sorry.*

*Ronon Dex: You shot me, too.*

*John Sheppard: I'm sorry for shooting everyone!*

– *Stargate: Atlantis* #3.9

## ABOUT *GURPS*

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*GURPS* rules and statistics in this magazine are specifically for the *GURPS Basic Set, Fourth Edition*. Page references that begin with B refer to that book.

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