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# Roleplayer<sup>®</sup>

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The *GURPS*<sup>®</sup> Magazine



## In This Issue:

Androids for *GURPS Cyberpunk*

Trouble at the High Tide Saloon

Optional Rules for Pacing Combat

Stellar Windjammers:

Magsails for *GURPS Space*

**STEVE JACKSON GAMES**

# Roleplayer®

The *GURPS*  
Magazine

## Waiter, There's an Editor in my Magazine

That's right. Steve has turned over the controls for issue #29 to me, Jeff Koke.

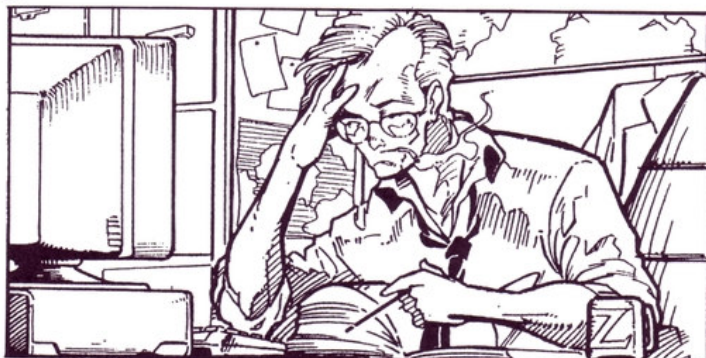
Well, first off I should say that, yes, we know this issue is late . . . okay, *really* late. It has to do with a lot of things, actually. Steve has been writing all the time lately. First it was *Ogre Miniatures*, now *Hot Lead*. To compound that, he's also been out of the office (and out of the *country!*) for weeks at a time. Obviously, Steve hasn't had time to do the editing and writing needed for this magazine. So he decided to pass the editing of the magazine to me for this issue. But just then, I got caught up in one crisis after another. Ah, well. So it goes.

### GenCon Report

GenCon 1992 was our best con in years. It was my first gaming convention, and frankly, I was impressed. It's nice to see so many people interested in the type of products we produce, and specifically *our* products. It was also a pleasure to finally meet the people that I produce for and the writers, artists and playtesters that I work with.

We managed to get some copies of *Ogre Miniatures* to the con in time to sell some . . . and sell some we did – over 150 copies! Ral Partha also did a brisk business with their complementary line of lead figures.

Other hot sellers were *GURPS Cyberpunk Adventures*, *GURPS Illuminati*, and *GURPS Middle Ages 1*.



### New Faces

Things have changed a little here at the office since our last issue. We have a new sales manager, Dana Blankenship (that's Loyd's sister), who comes into the position from Convention Liaison and Playtest Coordinator. She'll still be handling the convention duties, but playtesting has been passed on to our new office assistant, Lauren Hall.

We also acquired a new Print Buyer, Derek Percy, who has been doing an excellent job, and a new Production Artist, Laura Eisenhour (you can see some of her illustrations in *GURPS Bunnies & Burrows* and *GURPS Espionage*).

All in all, the year is winding down to be a good one. We've had lots of new, exciting products come out, and there are more to come. See *New For GURPS* for some more information.

– Jeff Koke

## IN THIS ISSUE

Letters .....	2
Short Notes .....	2
Writing for <i>GURPS</i> (Jeff Koke) .....	3
<i>The Art of Adventure Writing</i>	
New for <i>GURPS</i> .....	5
<i>GURPS Q &amp; A</i> .....	6
Errata .....	7
The Next Best Thing to Human (David Pulver) .....	8
<i>Androids for GURPS Cyberpunk</i>	
The Fight's Over Already? (Chris W. McCubbin) .....	12
<i>Optional Rules for Pacing Combat</i>	
Stellar Windjammers (Sean Barrett) .....	15
<i>The Magnetic Sail Space Drive</i>	
Trouble at the High Tide Saloon (Ann Dupuis) .....	19
<i>Brawling, Western Style</i>	
Mana-pulations (Charles Wheatley) .....	28
<i>Tools &amp; Techniques for Balancing Magical Adventures</i>	
Like the Back of My Hand (S. John Ross) .....	32
<i>Further Definition for the Area Knowledge Skill</i>	
Coming Attractions .....	Back Cover

## Roleplayer®

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# Letters

## Disaster Relief

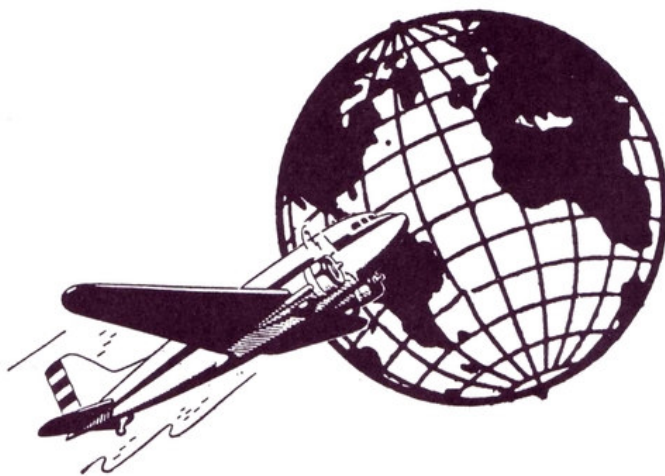
As you might already know, Florida has just suffered one of the worst disasters in ages. The hurricane has left over 200,000 people homeless. I am now also homeless; my trailer is gone, so for the time being I'm staying with my parents. Like others, I have lost *everything*; valuable comics, clothes and my huge collection of roleplaying games (the majority of my gaming friends are in the same boat). My TSR, West End Games, Steve Jackson Games and various other games have all been destroyed. I'm most sad at the loss of my *Sorcery* game books as they are *very* rare and hard to find . . .

I've been playing since I was 13 (1983) so it's no lie when I tell you I had about 3 or 4 thousand dollars worth of games, supplements and comics. But at least I am alive. Still, I'm jobless (worked in the keys), homeless and depressed. Please ask your *ADQ* readers and *Roleplayer* readers to donate to the Red Cross and any other hurricane disaster charities available. Miami is in *very* bad shape. We need all the help we can get. Thanks for taking the time to read this. I recall that your company had trouble with a flood once, so you must know what it's like . . .

— Milton Martin Fernandez  
Miami, FL

Thanks for letting us know how things are going. Hard times are much easier when the burden is shared.

— Jeff Koke



## SHORT NOTES



**Finally: French and Japanese.** The French edition of the *Basic Set* has been released by Corregé Editions; their next project will be a French edition of *GURPS Conan*. The Japanese edition of the *Basic Set* has been released by Kadokawa Media Office (KMO). This is actually their second *GURPS* release, though: the first one was a novel set in their original *GURPS* fantasy background, the World of the Seven Moons. That novel sold out its 70,000 press run almost immediately and went back to press!

**Steve Jackson's Whirlwind World Tour.** In a related note, in the last few months, Steve has been on two overseas trips promoting *GURPS* and other Steve Jackson Games products. The first trip was to Osaka, Japan, where Steve was the guest of Kadokawa Corp., the company who produces the Japanese version of *GURPS*. Then, after a week in Milwaukee for Gen-Con/Origins, Steve flew out to England, as a guest of Contraption, where he demoed products and even ran a highly successful playtest game of the upcoming *Fantasy II: The Mad Lands*.

**Conan Back on the Shelves.** Steve Jackson Games has renewed its *Conan* license, and a reprint of the *GURPS Conan* worldbook is due to hit the stores in time for Christmas. We also plan to produce one or two sourcebooks to support the *Conan* line.

# Writing for GURPS

## The Art of Adventure Writing

By Jeff Koke

In the last year and a half, Steve Jackson Games has produced five collections of adventures, covering genres from fantasy to space to cyberpunk, and more. These books have been modest successes, and the company plans to continue producing them. This creates a high demand for competent adventure writers.

Writing an adventure is one of the best ways to break into the game industry. Adventures are usually short enough to represent little time and risk for the author or the company, yet they provide an opportunity for the company to evaluate a writer's ability – both in style and substance. To the author's advantage, adventures give more creative leeway than sourcebooks and worldbooks, allowing an author to "show off" his flair for characterization, plotting or description.

But what makes a good adventure for *GURPS*? There aren't any sure bets – there are more *bad* ways to write one than good – but there are a few areas that deserve special emphasis.

### Characterization

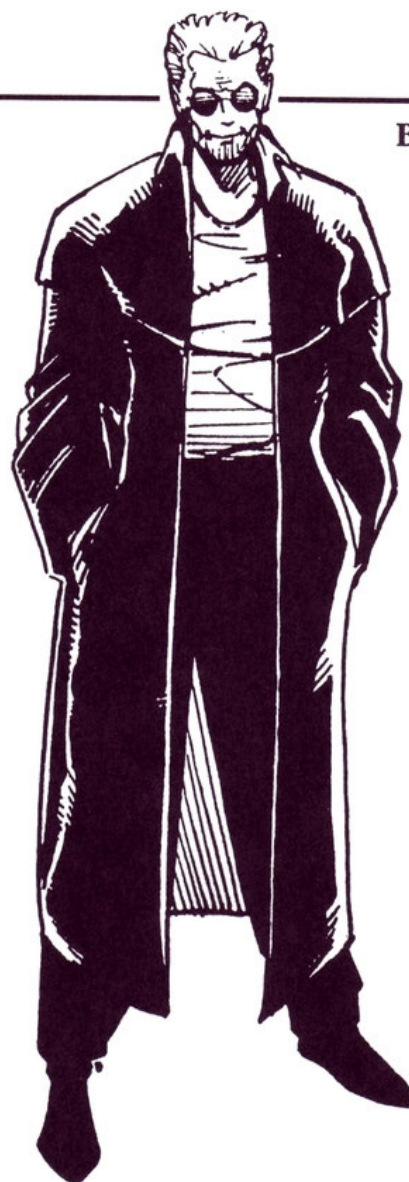
An adventure should read like a good story, and most good stories are built on well-defined, interesting characters. In fact, if the characters are good enough, they can save a bad plot. In an adventure, the non-player characters that the PCs interact with need to be fully developed and memorable. Here are a few ways to develop strong, intriguing characters.

#### *Eccentricities*

Everyone is weird in his own little way. We all have personality traits that stray from the norm. For NPCs, this can be achieved through a liberal sprinkling of unique disadvantages (Phobias, Odious Personal Habits, Delusions, Secrets, etc.) and quirks. Quirks are especially good for showing off an interesting trait. For example, "Carries a lucky penny" is an uninteresting quirk that would rarely come into play. But "Rarely passes up a chance to go swimming" could make the character annoying, funny or both.

#### *Background and Motivations*

Believable characters are motivated to do what they do. Without good background stories, characters seem like cardboard cutouts, or simple tools for the GM to manipulate the players. When creating an NPC's history, the writer should think about the character's role in the adventure and then work backward, developing a past that would logically lead up to the time of the story. Although the players may never find out that Dr. Ludicro was abused as a child, the GM will *know* that this is part of his motivation for torturing his prisoners, and will portray the good doctor more realistically.

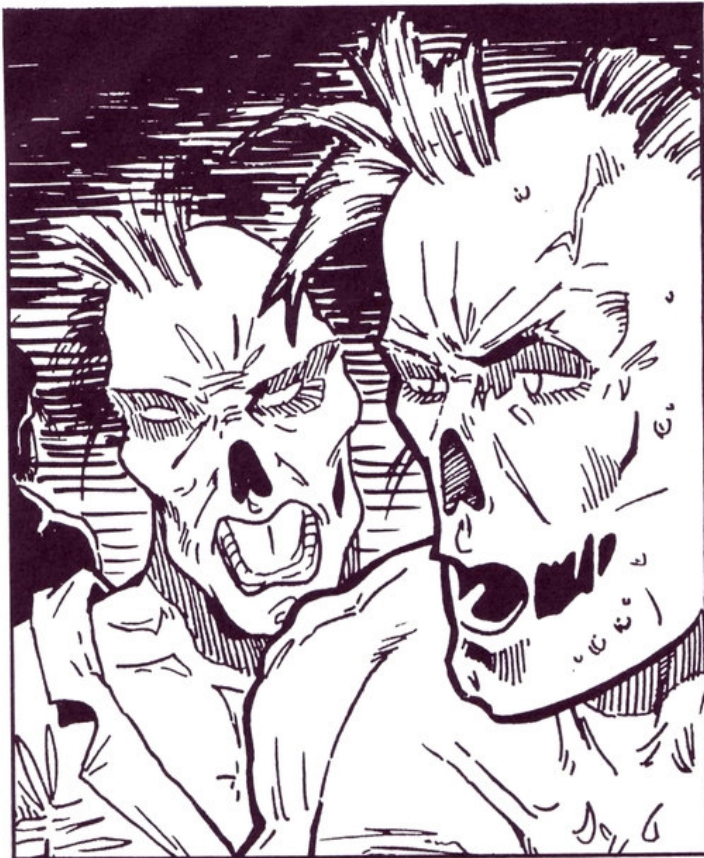


#### *Appearance*

As in life, players in an adventure often first judge the people their characters meet by their appearance. The adventure writer needs to use this to his advantage. If he wants the players to be wary of the undercover agent, he'll give the man dark features, a bad suit and a crooked nose. But if he wants them to trust the agent completely, so they will be ripe for betrayal, he'll paint the person as attractive and well-groomed. One of the most important things to avoid with appearance is cliché. Not all villains are male with black hair and dark eyes. In fact, some of the most sinister villains are those who look the part the least: children, repairmen, cats . . .

#### *Plotting*

Good characters, however, can only go so far. If all the PCs do is interact with interesting people, the adventure will end up pretty boring. This is where plotting comes in. All adventures have a central objective; the plot is what moves the characters from the introduction to the finale.



### Linear Plots

The most common type of *GURPS* adventure uses the linear plot. This type of story moves the PCs along from one scene to the next, giving the GM information for a specific number of encounters and puzzles. If the players stray from the plot, the GM has to rely on his wits and skill to either ad-lib or manipulate the players back into the plot line.

The advantage to linear plots is that they read and, more important, *play* like stories. The players are the protagonists, and the scenes are well-defined and (if the adventure is good) exciting. Players feel at the end like they've been a part of a dynamic, professional story.

The problem with linear plots is simple: players are unpredictable. There's no way the writer can foresee what the PCs will try in any given situation. Scenes must be written to *appear* flexible, yet only provide one or two possible outcomes – a very difficult thing to do. The best way to prepare a GM for the inevitable straying of the PCs is to write a section on debugging the plot: tips for the GM on how to return wandering players to the main story line.

### Non-Linear Plots

Non-linear plots are less like stories and more like detailed, well-described settings. A background setup is presented, along with an objective, and the PCs are let loose in a certain limited area – perhaps one city, an underground complex or a point in time.

The advantage to this type of plot is that it gives the players and GM a great amount of freedom to explore the area, and each time the adventure is run, the objective can be achieved in a different way.

The disadvantage is that the objective may never be achieved. With no defined plot, the players may just wander, leaving it up to the GM to spur them in the right direction. This is the biggest difficulty in writing this type of adventure: how to provide enough freedom without allowing the PCs to get lost – leaving them confused and unsatisfied.

### Description

Regardless of the type of plot, each adventure will be made up of a collection of scenes. One of the writer's jobs is to describe the scenes in enough detail and style that the GM can convey an appropriate feel for the scene. Some descriptions can be short and still provide the necessary elements: "On the road to the left is a Midwestern truck stop."

Others need much more detail, especially if they vary from what most people would expect: "On the road to the left is what appears to be a Midwestern truck stop, except that closer examination reveals that it hasn't been in use for years. Cobwebs decorate broken window panes, and the front door is leaning slightly to one side. The usual smell of gasoline and food is absent, replaced by a stale, musty aroma that seems somewhat unnatural. From within comes the sound of an old turntable, perhaps a jukebox, sputtering out the scratchy sound of a Patsy Cline record."

Descriptions should also include the full range of senses. Most writers describe things that are seen, which is important, but often the things that the PCs hear or smell are what convey the essence of a scene perfectly.

### Game Mechanics

Finally, it's very important that a writer realize that although an adventure should read like a story, it is still part of a game – a game that has rules. Players like to make skill rolls, and an adventure with few skill rolls is usually boring. Statistics and game mechanics need to be present and obvious enough to make it easy for the GM to use the adventure. If a scene calls for the PCs to sneak past a guard, the text should be specific as to whether Stealth or IQ rolls are required, how alert the guard is, and whether the time of day or weather has any effect on the situation.

However, the scenario should not read like a rulebook. The GM should not try to come up with a new game mechanic every time a novel situation comes up. The *Basic Set* covers nearly every possible occurrence, one way or another. The writer can usually figure out a way to cover any situation with the existing rules.

In the few cases where a new mechanic or rule really is needed, common sense and simplicity should act as a guide – the easier a rule is to understand, the less likely a player will screw it up.

No writing is easy, and adventure writing is doubly hard. The writer must balance plot, characters, descriptions and mechanics – all the time keeping the story entertaining and the plot consistent. In the end, though, there are few things more satisfying for a writer than to know that people will take his creation and use it to inspire their own stories and create their own adventures.



# NEW FOR GURPS

Because of the time since the last issue, this list is *long!* Check your local retailer for these items, released since the last issue of *Roleplayer*:

**GURPS Callahan's Crosstime Saloon.** Based on the award-winning stories by Spider Robinson, this book describes the most amazing bar in the universe . . . where *anything* can happen. The regulars include a super-powerful cyborg, several time travelers, a couple of telepaths and a talking dog . . . and now you and your fellow players.

This is a book for adult players; it's not for hack-and-slash roleplaying, but for people who like to examine characters, solve problems, and put themselves in others' shoes. Sometimes *very strange* shoes! Written by Chris McCubbin; illustrated by Donna Barr. 128 pages; \$16.95.

**GURPS Middle Ages I.** Roleplaying in medieval England. A detailed look at the days of knight-errantry as they really were – and as they could have been – for historical campaigning, cinematic roleplaying or time traveling. Includes maps, castle floor plans and more. Written by Graeme Davis and Michael Hurst. 128 pages; \$16.95.

**GURPS Supers Adventures.** A collection of four super-powered campaign vignettes: two linked undersea adventures, one on a moon of Jupiter, and one even farther off. Written by David Pulver (*GURPS Ultra-Tech*, *GURPS Psionics*), Jeff Koke, Robert Schroeck (*GURPS I.S.T.*, *GURPS Robin Hood*), J.B. Sanders and Chris McCubbin (*GURPS Fantasy Folk*). 128 pages; \$16.95.

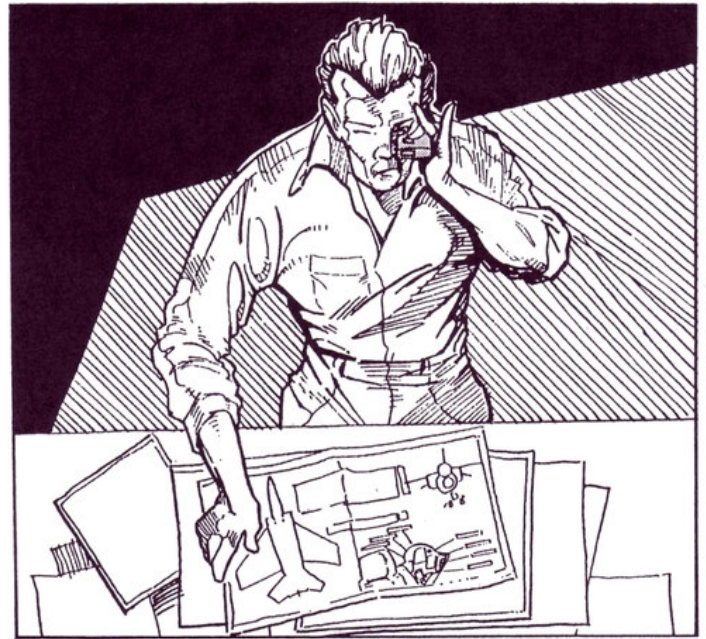
**GURPS Mixed Doubles.** A book of super-characters – with a difference. All these supers are presented in pairs: rivals, mentor and student, linked origins . . . even “bosom enemies.” Thus, each pair of characters is also a detailed adventure seed, ready to drop into your campaign. Written by Spike Y. Jones. 128 pages; \$16.95.

**GURPS Cyberpunk Adventures.** Three new trips into high-tech low-life (and sometimes ultra-tech ultraviolence), suitable for any c-punk campaign. Written by David Pulver (who's been prolific recently), Jak Koke (not a typo – he's Jeff's brother) and Timothy Keating. 128 pages; \$16.95.

**GURPS Bunnies & Burrows.** The classic game of rabbit adventure – yes, *rabbit* adventure – returns in the *GURPS* format. Each PC is a furry animal (cuteness optional) in a world where everything *eats* furry animals. Based on the original game by B. Dennis Sustare and Scott Robinson, the *GURPS* version is by Steffan O'Sullivan (*GURPS Swashbucklers*, *GURPS Bestiary*). 128 pages; \$16.95.

**Ogre Miniatures.** This is *not* a *GURPS* book . . . but for years, gamers have been asking for a roleplaying version of *Ogre*, and it's getting closer. This rulebook includes lots of background information on the world of cybertanks and GEVs, and the full roleplaying writeup *will* follow . . . someday. In the meantime, if you like pushing metal, check this out. Written by Steve Jackson. 64 *full-color* pages; \$14.95.

**GURPS High-Tech, Second Edition.** A detailed reference book for technology, knowledge, gadgets and weapons – especially weapons – from the introduction of gunpowder to the end of the 20th century. A hit when first released, this book has been out of print and under revision for more than a year. Written by Michael Hurst. 128 pages; \$16.95.



**GURPS Espionage.** This book brings the world of spies and secret agents to *GURPS*, with rules, gadgets and background for either a realistic game or a cinematic adventure in the spirit of James Bond or Napoleon Solo. It includes an extensive glossary of spy terminology and a comprehensive discussion of real-world espionage organizations past and present. Written by Thomas Kane. 128 pages; \$16.95.

**GURPS Timeline.** This is the ultimate reference book for *Time Travel* Game Masters. It presents all of human history (and we mean *all*) in a simple format the gamer can use – with adventure seeds and cultural descriptions for many of history's turning points. Written by Chris McCubbin. 128 pages; \$16.95.



# GURPS Q&A

I just bought the *GURPS Supers Mixed Doubles*, and I have a few comments regarding it. The Squall and Lightning Bug (pp. 60-64) characters are wrong. In Squall's story, you give the impression that it was her Jinx [disadvantage] that allowed the Firefly to kill the rest of the Weathermen. Also, in Lightning Bug's story, it was because of his surprising luck (mostly as a result of Squall's jinx) that he was able to kill the Weathermen. Well, this is simply not true; if you read the description of Jinxed in the *GURPS Supers, Second Edition*, (p. 19), you will note some difference.

It says, and I quote: "If you are Jinxed, anyone in your immediate vicinity suffers a -1 through -3 penalty on any roll the GM makes for them. They have no penalties on rolls they make themselves." Obviously, only the characters that the GM is running as NPCs will be making any rolls for.

— Jeff Brumfield

*You're forgetting that the GM makes rolls for player-characters as well as NPCs — certain perception rolls to notice things, Stealth rolls, etc. The GM usually rolls for a player when he feels that the character wouldn't know if his attempt were successful or not.*

*Whether the Weathermen were PCs or NPCs, the GM would be making some rolls for them, and Squall's jinx would affect them.*

— Jeff Koke



1) Could you please list the abbreviations for all the current (and maybe near-future) worldbooks?

2) Can a person do a "controlled fall" (say, off of a roof) and reduce the damage they might take by rolling when they hit the ground?

3) If your HT is 0 or negative, what can you do without needing to make a HT roll every second to stay conscious? Can you talk? Walk or crawl to shelter? Perform first aid on yourself? Cast spells?

4) What happens if more than one person in the party has a Survival skill for that area? Does only the highest-skilled person roll? Or are the skill rolls maybe modified because they are "pooling" their knowledge of the area?

5) Since a very fine weapon will not break on a parry, does this really mean that a very fine rapier (1.5 lbs.) can actually parry a maul (12 lbs.) all it wants without penalty?

— Rick Malavasic

1) Well, that would take up quite a bit of space; there are over 50 worldbooks and sourcebooks currently in print. However, any book that uses abbreviations will have those abbreviations listed under the **About GURPS** sidebar at the beginning of the book.

2) Yes, but it requires a successful Acrobatics roll (defaults to DX-6). This takes 5 yards off the effective distance of the fall for computing damage.

3) If your HT is 0 or negative, you **are** unconscious unless you make a HT roll. You can't do anything but lie there and sleep.

4) One person can provide for up to ten others with a successful Survival roll. Everyone in the party can attempt the roll.

5) Yes, that's what it really means. That rapier would cost \$10,000 and be very hard to acquire.

— Jeff Koke

For 60 points you can buy Eidetic Memory that allows you to count all points you put into "regular" mental skills as quadruple. What are "regular" mental skills?

— Sonja Holmes

*Regular skills include all those on the skill table. This phrasing is intended to exclude such mental skills as magic spells and psionics.*

— Loyd Blankenship

Do you get a higher starting wealth if you have higher status? In *GURPS Space*, it implies that is so.

— Tony Archer

Actually, it's the other way around. High levels of Wealth allow a character to purchase Status at a discount (-5 points for a Wealth level of Wealthy or better). What this amounts to is one level of Status free for Wealthy individuals.

—Jeff Koke

How does armor take damage?

—Kevin Robbins, Jr.

Unfortunately, the bookkeeping involved in tracking the damage to armor makes any realistic rules system for it complex and unwieldy. (It would make a great *Roleplayer* article, though.) In general, it is up to the GM to decide how much damage armor takes and whether and when it needs repairing or replacing.

—Jeff Koke

Can you use the Test Food spell to check food for other organisms? For instance, a buzzard would really love some four-day-old carrion. Would the spell, if cast with buzzards in mind, approve it?

—Nathan Helfinstine

Nathan, you're not a well person. I'd say a provisional yes, provided the mage was familiar with the creature's habits and had an actual creature, or at least a piece of fur, feather, etc., to help him focus his concentration away from his own dietary preferences. This will only test for organic suitability — it can't be used as a Detect Virgin spell with Dragons in mind, for instance! Likewise, it couldn't be used to tell rubies from glass fakes by visualizing some imaginary Ruby-Eater.

—Lloyd Blankenship

Why is Passive Defense so expensive in *Fantasy Folk*?

—Steve Zullo

Because PD adds into *all* defenses — active and passive! With a high enough PD, DR becomes almost unnecessary!

—Lloyd Blankenship

How would knack-type magic, as described in *GURPS Magic*, work in a no-mana area? In general, how would mana levels affect knacks? What about racial knacks, as suggested in *Fantasy Folk*?

—Hannes van der Koln

Knacks do not function in no-mana areas. Other levels of mana have no effect on knacks — no bonus for high mana and no penalty for low mana. The same is true for racial knacks.

—Jeff Koke

*GURPS Uplift* gives several devices which have psionic powers or which give psionic powers to their wearers. Power levels are given, but what skill do they confer?

—Mark Mohrfield

For the Psi Detectors, the skill roll is made by the operator of the device vs. his Electronic Operations (Psi Devices) skill, except for the Biomonitor, which requires no skill roll.

The Psionic Amplifiers only boost the wearer's psionic power. The user rolls vs. his normal skill level in the boosted Psionic skill.

—Jeff Koke



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## ERATA

### *GURPS Basic Set*

p. 176. Psionic Resistance is listed as a psionic skill under Antipsi. Actually, psionic resistance is a special advantage available only in games that allow psionics. It costs 2 points per level of resistance. The description reads exactly the same.

### *GURPS Bunnies & Burrows*

p. 19. Under *Encumbrance and Weight*, add "Each level of encumbrance reduces a rabbit's Move score by 2, not 1 as in the *Basic Set*."

### *GURPS Middle Ages 1*

p. 90. The enchantment costs for Create Charm are wrong. They should be 20 for the first and second points, and 50 for the third and fourth.

p. 103. The "Kelpie" caption for the illustration should read "Water-Horse." It's a similar creature, but the Kelpie name doesn't appear in the description . . .

### *GURPS Space*

p. 70. Under the description of the *Medical Pouch*: the pouch does not necessarily contain the contents of two Emergency Med Kits, but has room for them; they must be purchased separately. A Med Pouch *does* carry a full set of physician's and surgeon's tools for the appropriate tech level. The correct cost and weight for the pouch is \$900 and 4 lbs.

### *GURPS Supers*

p. 40. Add under *Flight*: Anyone capable of self-propelled flight (not Winged Flight) can "fly" at half speed underwater.





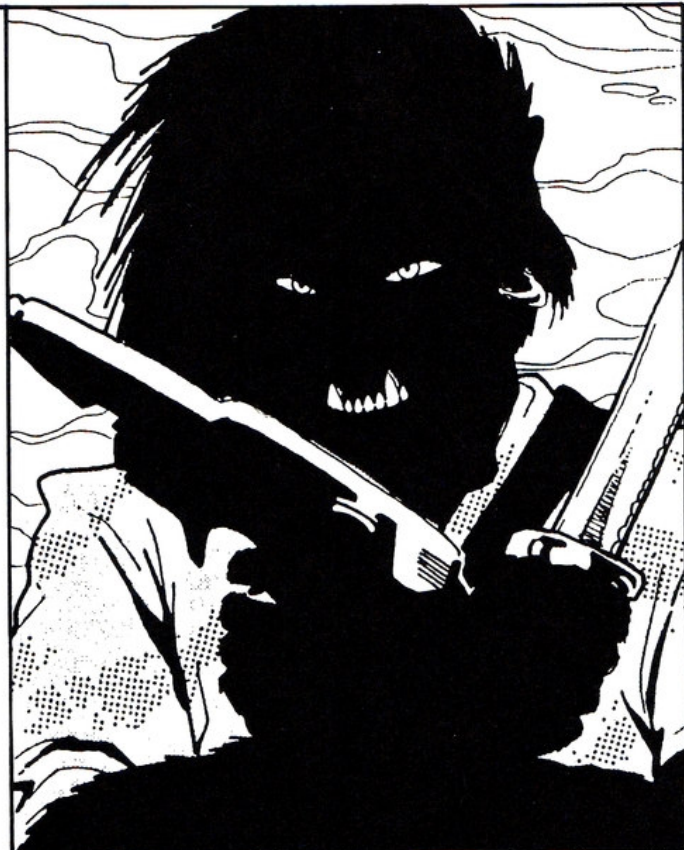
# The Next Best Thing to Human

Androids for *GURPS Cyberpunk*

By David L. Pulver

An android is a synthetic humanoid created from biological materials – don't confuse them with robots! Androids are also called gene-splices, vat-humans, replicants and artificial people. Some resemble humans while others are more exotic, often with animal features due to the splicing of animal and human DNA. Androids cost from about \$200,000 to \$1,000,000 each, more for custom-designed prototypes. Because of the expense involved in android creation, most are either ordered by very wealthy individuals to satisfy private whimsy or by major corporations to fulfill a need for specialized personnel. It's not yet cost-effective to replace regular human workers with androids.

Androids are produced by tinkering with human DNA to produce the desired results, then using normal in-vitro fertilization techniques and artificial wombs to produce a child. After the first prototypes are produced, mass production is initiated using clone-tank, force-growth techniques to grow the embryo to adulthood in a matter of a few months. As it floats in the clone tank its brain is hooked up to a mainframe computer running sophisticated dream simulation programs. The android grows up in virtual reality and experiences simulated childhood, education and on-the-job training. Six months to a year after entering the tank, the android's socialization and education is complete, and it is released, a thinking being.



The legal status of androids remains hazy. In some areas they are citizens with full human rights, but many of the companies who produce them for sale maintain they are not human (most androids use a sizable quotient of artificial or animal DNA, if only for this reason), and laws governing Artificial Intelligences apply to them instead: they can be owned and trademarked. International conventions adhered to in Europe, North America and Japan agree that androids are artificial life forms in the same category as AIs: they may have limited citizenship, but belong to the creator corporation (or whoever purchased them). They must contain a certain amount of nonhuman DNA, must be sterile, and may only be contracted to corporations (not individuals). Of course, there is a thriving trade in black-market androids sold to individuals.

Because androids are produced using fast-growth clone tanks, their actual ages differ from their biological ages – they'll usually be about 15-17 years younger than they look. Furthermore, some androids are designed to age more rapidly than humans. Normal skill limits for age do not apply to androids, since many of their skills are "programmed" into them through dream-game simulations.

## Advantages and Disadvantages

Several "racial" advantages and disadvantages are used to create androids. Android disadvantages do not apply to the standard 40-point limit on disadvantages. Some of the advantages are biological variants of cyberware: *Claws* are natural equivalents of short or long claws (p. CY32). *Perfect Balance* is the equivalent of Gyrobalance (p. CY35). *Ultrasonic Hearing* is the same as the cyberware implant on p. CY37. Others are described below.

### New Advantages

#### **Bioelectric Shock** 10 points

You can generate an electric current in your body, much like an electric eel or ray. This inflicts 1d electrical damage if you touch a person who is not grounded. It costs 2 Fatigue. You can also use the ability to *save* lives – add +3 to First Aid skill when making CPR rolls!

#### **Drug Factory** varies

Your glands produce natural analogues of one or more of the following drugs: Crediline, Hypercoagulin, Morphazine, Neurovine, Nerve Poison or Rage (see pp. CY57-59). You can administer these drugs to others (but not yourself) via a bite or claws as if they were hypo-injected. Your metabolism is limited to producing HT/2 doses; doses are restored at one per four hours. This is similar to a Poison Reservoir cyberware, but self-regenerating. This advantage costs 20 points for one drug on the list and 10 points per extra drug. Any drugs you can make won't affect you!

#### **Fur** 4 points

You have a coat of fur, providing DR 1 and protection from the elements equivalent to light clothing.

#### **Hyper-Reflexes** 15 points

You can voluntarily initiate and control abnormal levels of adrenaline production, increasing your speed and reflexes. At the start of any turn, you can activate your hyper-reflexes. This costs 1 Fatigue *per turn* but gives you the

Combat Reflexes advantage and +1 to Basic Speed. (If you *normally* have Combat Reflexes, you gain double the usual benefits.) Since Combat Reflexes increases all active defenses by 1 and Speed increases Dodge, Androids with this advantage have two values for each active defense: one when Hyper-reflexes is activated, another when it is not.

#### **Hyper-Strength** 30 points

You can voluntarily duplicate the feats of hysterical strength that normal people sometimes perform. You may increase ST (but not Fatigue) by 50% at a cost of 1 Fatigue *per turn*. Androids with this ability will list "split ST."

#### **Immunity to Poison** 25 points

You are genetically engineered, or different enough biologically, to be immune to most poisons (including sleep and nerve gas) and non-medical drugs. You are still vulnerable to acid and many diseases.

#### **Pheromone Control** 25 points

You can release powerful sex pheromones. Any human (or android) of the opposite sex within 4 yards may breathe them in (unless wearing a sealed suit, etc.). Anyone breathing your pheromones will find you one level more Attractive (+2 on Reaction if already Very Beautiful) and will break into a sweat and become aroused: roll IQ-3 or suffer from Lecherousness for the next ten minutes.

#### **Sonar Vision** 25 points

You can "see" by emitting sound waves like a bat or dolphin with a range of 100 yards. No light is required. Sonar can be jammed by loud noises and is colorblind, but (within a range of 1 yard) you can actually "see" inside living things or other objects of similar density. GMs may give a +2 bonus to skills such as Diagnosis, or to attempts to detect concealed weapons (using Holdout).

#### **Sharp Teeth** 5 points

You can do cutting damage in close combat, using the table on p. B140.



## New Disadvantages

### *Self-Destruct* -20 points

As soon as you reach your aging threshold (50 for a normal human) your organs and immune system begin to fail. You start to age rapidly, making aging rolls every *day* at a -3 to HT. Terminally Ill characters may not take this! This disadvantage ensures a steady demand for new androids . . .

### *Short Lifespan* -25/level

Each level halves the age at which you are mature *and* at which you begin to suffer aging effects. This disadvantage makes production of androids quicker, and ensures a steady demand for new models. It is often found in conjunction with Self-Destruct.

## Sample Androids

### Cassius (Mngwa I)

Age 5 (looks 35), 7' 2", 220 lbs., male, yellow cat-eyes, no hair, spotted skin.

**ST:** 15 (60 points)   **IQ:** 11 (10 points)   **Speed:** 6.74  
**DX:** 14 (45 points)   **HT:** 13 (30 points)   **Move:** 6  
**Dodge:** 7.  
**Damage:** *Thrust* 1d+1; *Swing* 2d+1.

**Point total:** 150

### *Advantages*

Alertness +2 (10 points)  
Claws (40 points)  
Combat Reflexes (15 points)  
Fur (4 points)  
High Pain Threshold (10 points)



### *Sterile* -3 points

All legal androids must take this. You cannot produce offspring, but are otherwise a fully functioning male or female.

Night Vision (10 points)

Sharp Teeth (5 points)

### *Disadvantages*

Bad Temper (-10 points)  
Color Blindness (-5 points)  
Intolerance (Humans; -10 points)  
Gigantism (-10 points)  
Self-Destruct (-20 points)  
Short Lifespan (2 levels; -50 points)  
Social Stigma (Valuable Property; -10 points)  
Sterile (-3 points)

### *Quirks*

Collects guns (-1 point)  
Wears black scarf (-1 point)

### *Skills*

Armoury (Rifles and handguns)-12 (4 points); Beam Weapons (Laser)-15 (2 points); Brawling-18 (16 points); Fast-Draw (Power holster)-13 (½ point); First Aid-10 (½ point); Guns (Gyroc)-15 (2 points); Guns (Needler)-15 (2 points); Sex Appeal-12 (1 point); Stealth-13 (1 point); Survival (Urban)-10 (1 point); Tracking-10 (1 point).

### *Equipment*

Launch pistol (2 magazines Stinger, 1 SLAP) in powerholster; Gauss needler (w/laser sight); medium monocrys (full suit); 1 Gauss magazine; heavy laser pistol.

### *Story*

A hybrid of human and leopard DNA, Cassius is a Mngwa-class combat android grown by Biotech Chulan for the private security market. He doesn't like humans at all. His toothy grin is a challenge, and he'll be the first to make humans feel unwelcome when they cross his path. He works as a private street-op and bodyguard, enjoying getting paid for breaking human heads. He'll bother anyone who tries to bother someone he's protecting.

## Neko (Bast III)

Age 5 (looks 25), 5' 7", 125 lbs., female feline, black and silver fur, white hair, green eyes.

**ST:** 9 (-10 points)    **IQ:** 12 (20 points)    **Speed:** 7  
**DX:** 15 (60 points)    **HT:** 13 (30 points)    **Move:** 7  
**Dodge:** 8            **Parry:** 10 (Karate)  
**Damage:** *Thrust* 1d-2; *Swing* 1d-1.

**Point total:** 200

### Advantages

Alertness +3 (15 points)  
Appearance (Beautiful; 15 points)  
Claws (15 points)  
Combat Reflexes (15 points)  
Flesh Holster (in leg, 3 lbs.; 5 points)  
Fur (4 points)  
Night Vision (10 points)  
Perfect Balance (5 points)  
Pheromone Control (25 points)  
Reputation (+2 android underground, all the time; 5 points)  
Voice (10 points)

### Disadvantages

Enemy (Police, 6 or less; -10 points)  
Impulsiveness (-10 points)  
Sense of Duty (other androids; -10 points)  
Short Lifespan (1 level; -25 points)  
Secret (ex-snuff-rock star; -10 points)  
Self-Destruct (-20 points)  
Social Stigma (Valuable Property; -10 points)  
Sterile (-3 points)

### Quirks

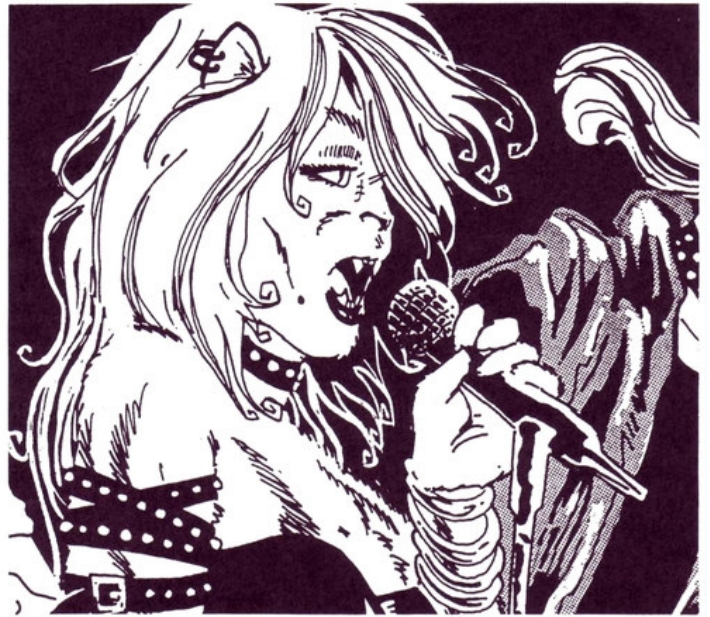
Amused tolerance of humans (-1 point)  
Licks her fur (-1 point)  
Purring voice (-1 point)  
Loves singing (-1 point)  
Won't do "wet work" (-1 point)

### Skills

Acrobatics-13 (1 point); Acting-15 (8 points); Carousing-14 (1 point); Climbing-14 (1 point); Computer Operation-12 (1 point); Dancing-14 (1 point); Detect Lies-12 (4 points); Escape-13 (1 point); Fastdraw (Sword)-14 (½ point); First Aid-11 (½ point); Guns (Needler)-18 (8 points); Holdout-14 (6 points); Karate-15 (4 points); Performance-15 (8 points); Sex Appeal-17 (12 points); Singing-18 (8 points); Shortsword-17 (8 points); Stealth-14 (1 point); Streetwise-11 (1 point); Survival (Urban)-11 (1 point); Throwing-14 (2 points).

### Languages

English-12 (0 points); Japanese-13 (6 points).



### Equipment

Gauss needler; shortsword (superfine, vibro) in flesh holster; medium monocrys (full body); 2 Gauss magazines.

### Story

Neko is a Biotech Chulan-designed Bast III pleasure android: her face is feline, with slit-pupil green eyes and large furry ears. Her athletic body is covered by a tiger-striped black-and-silver pelt of soft fur. She's flamboyant, outgoing, sexy and passionate, just as she was built to be. But underneath the sex-kitten chassis, she's a custom-built killer.

She didn't start out that way. She was created for Music Box, an Osaka rock superstation that wanted a unique DJ. Neko's charm and interviewing skills (male rock stars turned to jelly in her presence) were popular with viewers, but she was the only thing on Music Box worth watching. When the station went out of business, Neko was sold to "snuff-rock" star Andreas Brecht.

Neko worked for Brecht for two years, which she describes as "psychedelic hell." Brecht was a Sin addict, and given to fits of sadistic paranoia; he wanted a unique body-guard-mistress to show off at parties, so Neko was given an implant to keep her enslaved. Usually Neko was the instrument of Brecht's rage – he liked what her claws and fangs did to people, and even used her in his videos: she danced, sang backup vocals and killed. But even as Brecht's favorite pet, Neko could not always escape his anger. One night, Brecht's broadcast satellite was shot down; he flew into a tantrum and his vicious beating fractured her skull.

Brecht didn't want to lose his expensive toy, so he called a doctor. The surgery jarred her control implant loose: Neko was her own woman again. When she recovered, Brecht tried to resume his games. Neko killed him and ran.

Now she sings with her band, Catseye, in underground android clubs like the Twisted Helix and Splicers. She regrets her days of killing, but hasn't forgotten the skills that she learned and remains a dangerous individual.



# The Fight's Over Already?

## Optional Rules for Pacing Combat

In general, *GURPS* has one of the most realistically-paced combat systems available. Watch any boxing or karate match, or SCA tourney combat, and it can be plainly seen that the *GURPS* convention of one exchange of blows each second, under normal conditions, is extremely accurate. The turn-by-turn breakdown of the gunfight at the OK Corral found on pp. 105-108 of *GURPS Old West* demonstrates that the combat system works equally well for ranged weapons.

There is one area, however, where the pacing of *GURPS* combat fails the reality check. In a real combat, the action is not as continuous as in most *GURPS* combats. Normally, there are a few seconds of furious action, followed by a lull of several seconds, during which the combatants catch their breath or maneuver for position, followed by another furious exchange of blows, and so on.

Most of the time, these lulls in combat can be safely ignored. But sometimes it's important to know *exactly* how long a given combat lasts, particularly when reinforcements are on the way – can plucky cub reporter Jimmy Green hold off the gangland thug for the 20 seconds it will take his buddy, the Avenging Vole, to break through the skylight and save the day?

The following optional rules, then, are designed for those who might wish to pace their combats a bit more realistically.

## Exchanges and Lulls

The optional combat pacing rules divide combat up into two alternating modes, called “exchanges” and “lulls.”



By Chris W. McCubbin

During exchanges the combatants are going full out, throwing blows at maximum speed. During lulls combat stops and the combatants basically wait around for the next exchange.

When combat starts, the GM should roll 2d in secret. This is the length, in seconds, of the first exchange. After that many turns, he rolls 1d. This is the length of the first lull. The lengths of all exchanges and lulls after the first are rolled on 1d.

Only the GM should know how long the dice dictate a lull or exchange will last.

## Multiple Combatants

If there's more than one combatant on each side, the GM should break up the fight into a number of one-on-one battles, and roll the duration of exchanges and lulls separately for each fight. If two or more combatants are ganging up on a single opponent, there are no lulls.

For example, if seven Jets ambushed five Sharks on the playground, the GM would allow the attackers to pick their opponents, and divide the fight up into three one-on-one fights (with lulls rolled normally), and two two-on-one fights (with no lulls). Alternately, there could be four one-on-one fights (with lulls) and one three-on-one fight (without).

## Circling for Position

During a lull, the combatants are considered to be circling for position. When circling for position, the combatants prowl warily around each other, looking for an opening and testing defenses. If both combatants are circling for position, at the end of the lull they should roll a Quick Contest of weapon (or hand-to-hand combat) skill. The winner of the contest receives a +1 which he can apply to any combat roll (attack, defense or damage) during the first round of the next exchange. This bonus must be taken before the dice are rolled. There is no bonus if the contest is a tie, or if both combatants roll under their weapon skill. (Note that if the combatant with the bonus chooses to save his +1 for a damage roll, but fails to land a blow, the bonus is lost. Likewise, if he saves the bonus for a defense roll, and his opponent falls or misses his attack, the bonus is lost.)

If one combatant wins the contest of skill by 10 or more points, he gets the +1 bonus, and his opponent *may not attack or all-out defend* during the first second of the new exchange.

## Pressing and Stalling

If the dice indicate it's time for a lull, a combatant may attempt to *press* his opponent if he doesn't want the battle to pause. If one of the combatants is trying to press, the players should roll a Quick Contest of Wills. If the person trying to press wins the contest, the lull never happens. Instead, the opponents immediately start another exchange, with a duration rolled normally by the GM. If the pressing opponent loses the contest of skills, or if it's a tie, the lull occurs normally. If the press attempt is successful, both opponents immediately lose 1 point of fatigue. If both combatants wish to press the battle, success is automatic, but both still lose the point of fatigue.

An opponent can also attempt to stall for time, breaking off exchanges early and forcing a premature lull. If a combatant declares he's trying to stall, during the next second he can defend normally, but he cannot attack or all-out defend. At the end of the turn the combatants roll a Quick Contest of Wills. If the opponent trying to stall wins the contest, the GM immediately rolls a lull, which begins on the next round. If he loses or ties, combat continues normally. If both combatants try to stall on the same turn, the lull occurs automatically; no Will rolls are necessary. A combatant cannot attempt to press if his opponent successfully stalls. A combatant may also substitute a Tactics roll for his Will roll for pressing and stalling.

## Maneuvers During Lulls

During a lull, opponents may not attack, all-out attack, all-out defend, aim or wait.

During a lull, either opponent may move, change position, ready or reload, but if he does so, his opponent has the option of *immediately* beginning another exchange, regardless of how long the lull has gone on, on the same round that his foe maneuvered. If an exchange starts after a maneuver, the attacker does not receive any bonus from circling for position.

If one combatant is taking the concentrate maneuver, his opponent must win a Quick Contest of IQ in order to perceive that his foe is concentrating. If the opponent wins the contest and notices that his enemy is concentrating, he may immediately initiate another exchange, as above.

Either combatant may use the feint maneuver to attempt to end the lull and provoke another exchange. The feint is rolled normally. If the attempt succeeds, a new exchange begins on the next turn (with the attacker gaining normal bonuses from his successful feint). If it fails, the defender has the option of beginning a new exchange, *starting on the same turn* as the feint attempt, or he may allow the lull to proceed normally.



## Interruptions

If a third combatant enters the fight during a lull, the lull immediately ends, and there will be no more lulls until the odds are again one-on-one. If the loner in a two-on-one battle removes one of his foes, there is an immediate lull, while the combatants who are left adjust to the new situation.

If a character is fighting two opponents, and an ally comes to his aid, the fight immediately becomes two one-on-one battles, with lulls and exchanges rolled normally for each.

On a successful Vision roll, a combatant who sees a new enemy coming to the aid of his foe may initiate combat on the round *before* the second opponent arrives, giving him one extra round of even odds.

If a combatant is wounded, for any reason, during a lull, his opponent may begin a new exchange on the next round. There is no bonus for circling for position, but the wounded character takes normal penalties for shock.

## Ranged Combat and Snipers

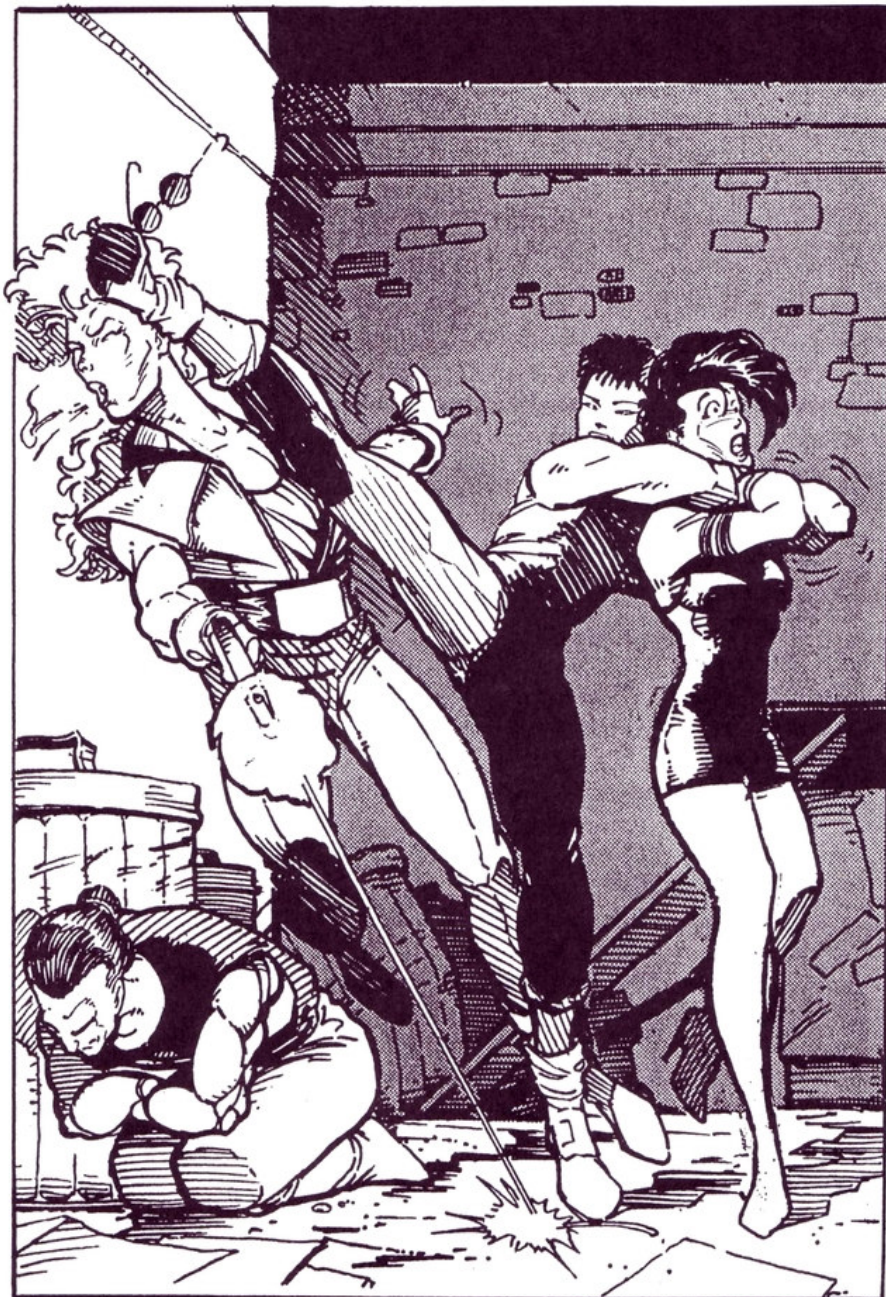
Lulls only occur during ranged combat if all combatants are under cover or concealment. When a lull ends, two combatants are considered to be simultaneously exposed enough to exchange shots at one another. The duration of exchanges is not rolled randomly in ranged combat; instead the exchange continues until one or both of the combatants return to full cover.

An unengaged character with a ready missile attack may attempt "sniper fire" to aid an ally engaged in a melee. Before firing into a hand-to-hand battle, however, the

shooter must roll 1d. On a 1-3, he has a clear shot, and may fire normally at his chosen target. However, on a 4-6 his ally is in the way, and he does not have a clear shot. If he does not have a clear shot, but chooses to fire anyway, his shot is at -5. Furthermore, if he fails his modified skill roll by more than 5, his missile strikes his *ally* (the ally may defend normally).

*Example:* Jak wishes to fire an arrow at the zombie attacking his friend Jil. Jak has a Bow skill of 15, and -2 for range, for a modified skill of 13. His bow is readied. He rolls 1d and gets a 5 – he does not have a clear shot. If he decides to shoot anyway, he must beat an 8 to hit. If he rolls between 9 and 13, his arrow will miss, and if he rolls 14 or higher, his arrow will hit Jil.

The chances for a clear shot are modified by 1 for each additional combatant in the fight. Whether the modifier is positive or negative depends on whether the extra combatants are on the firer's side or not. The more potential targets available, the better the chance for a clear shot. For example, if the firer's ally is being attacked by two foes, he will have a clear shot on a roll of 1-4 on 1d, but if three of his friends are attacking a single enemy, he will have a clear shot only on a roll of 1. No matter what the odds, however, chances for a clear shot are never worse than 1 in 6 or better than 5 in 6.



### Example

Ivan and Rodney are two 150-point swordsmen. One day in the woods they're ambushed by three Minotaurs. Rodney and one of the Minotaurs pair off, while Ivan has to defend himself against the other two.

The GM rolls the duration of Rodney's first exchange on 2d – a 5. Ivan's first exchange will last until he falls or he loses one of his opponents. Ivan begins to all-out defend.

Five rounds later Rodney's opponent is severely wounded, but still fighting. Ivan is slightly wounded, and still all-out defending. The GM declares a lull in Rodney's fight, but Rodney, wishing to rush to the aid of his friend, decides to push the fight. He easily wins his Will roll against the stupid Minotaur, and the GM rolls for another exchange on 1d (it comes out to 4 seconds). Rodney and his opponent both take 1 point of fatigue. Two rounds later, Rodney finishes off his foe and rushes to join Ivan.

Rodney attacks one of Ivan's opponents. The GM rolls 1d for an exchange for Rodney (5), and 1d for a lull for Ivan (6). Five rounds later the GM rolls a lull for Rodney (4).

Ivan is wounded, and wants Rodney's help again. When his lull ends, he sees Rodney is also at a lull in his fight, and tries to stall. He succeeds, and the GM rolls another lull for Ivan (5 seconds).

Rodney finishes off his opponent on round 3 of Ivan's lull, and rushes to his friend's aid. The Minotaur, surprisingly, makes his Vision roll, and restarts the combat the round before Rodney arrives. He manages to hit Ivan before Rodney arrives, knocking him unconscious. Rodney and the Minotaur pair off, and the GM rolls their first exchange on 2d. It comes to 6 seconds, but Rodney's having a good day, and only needs 3. He finishes off the Minotaur and helps his injured friend back to safety.



# Stellar Windjammers

## The Magnetic Sail Space Drive

By Sean Barrett

### Introduction

In late TL7 (1988) a slower-than-light space drive was designed that could maneuver freely within the Solar system – or any other stellar system – while consuming no reaction mass and requiring very little fuel.

The Andrews-Zubrin magsail uses a superconductor loop, miles across, to create a magnetic field that catches and diverts the stellar wind of plasma, very much like a cloth sail uses an atmospheric wind. Because the magnetic field completely surrounds the ship, any payload is completely protected from all charged-particle radiation – alpha and beta. It is *not* protected from x-rays or gamma radiation, nor from neutrons.

### Magsail Metadesign

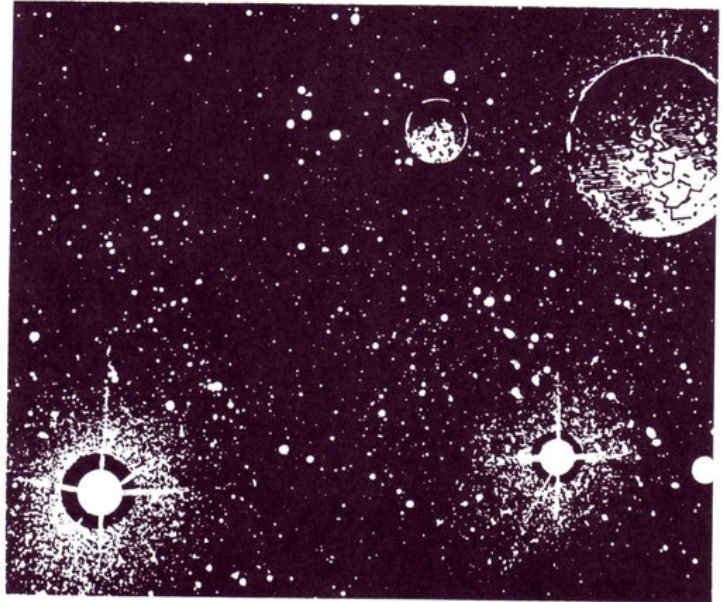
Magsails are very simple devices. At TL7, superconductors which could carry the required current density existed, as did superconductors which could operate at high temperatures. Once superconducting cable becomes available at early TL8 that can *both* carry the current *and* operate at the required temperatures, magsails can be built.

Like the starship chapter in *GURPS Space*, this article is a design *meta-system*. The GM will decide how rapidly superconductor technology will improve after TL8. There is a single optimum design of magsail for a particular current-capacity superconductor. A sufficiently strong magnetic field must be generated to form the requisite magnetospheric boundary, but an unnecessarily strong field is inefficient. Therefore, the only question facing a ship designer is how much he can afford. That and the current capacity of the available superconductor will determine all other parameters of the system.

The equation gives performance as a function of superconductor current capacity. The lowest capacity listed will be achieved very early in TL8. Improvements are at the GM's discretion. Once the GM decides what capacity superconductor is available in his world, that mass-to-thrust ratio is used to design all magsails in that world.

#### Magsail Mass-to-Thrust Ratio

Current capacity (amps/m <sup>2</sup> )	Mass in tons per ton of thrust
$1 \times 10^{10}$	500
$3 \times 10^{10}$	160
$1 \times 10^{11}$	50
$3 \times 10^{11}$	16
$1 \times 10^{12}$	5



#### Mass-to-Thrust Ratio Equation

Mass-to-thrust ratio is current capacity divided by 20,000,000.

#### Magsail Design and Construction

To calculate the mass of the magsail system, multiply the mass-to-thrust ratio (chosen by the GM, above) by the desired thrust. The magsail system (the superconducting wire, shrouds and motors) costs \$1 million per ton.

A magsail must be charged to operate. Energy requirements are given in the table below. Divide the requirement by the power plant's capacity in megawatts (MW) to determine the number of hours it will take to charge the magsail. Once the superconductor loop is carrying its current, it will operate theoretically forever. In actuality, however, every system has losses. The GM must decide how rapidly magsails lose their charge. One percent of the activation energy per hour would be very inefficient. If power is cheap, the GM may simply ignore losses.

Because both the radius and the energy formulae involve a square root, the significant digits in the radius and energy table repeat every two orders of magnitude. For thrusts not listed, multiply (or divide) the thrust by one hundred, then divide (or multiply) the radius by 10 and the energy by 1,000.

For example, a TL8 magsail producing a thrust of 0.01 tons masses 5 tons. The thrust is looked up in the table as  $0.01 \times 100 = 1$ . The radius is then  $200 / 10 = 20$  miles, and the charging energy is 0.026 MW-hrs = 94 MW-secs. A single standard 1 MW solar panel will do the job in a little



over a minute and a half. One percent per hour, 0.26 kW, will maintain the charge.

Magsails are stored on huge reels attached to the outside of the payload's hull. To deploy, the reels are simply freed to turn, and current applied to the wire. The magnetic field created will unfurl it automatically. The time required to deploy the magsail is the time necessary for the power plant to fully charge the wire, or one minute per mile of radius, whichever is greater. To retract a magsail takes one minute per mile of radius. Magsails take no hull volume even when furled, and *can* enter the atmosphere of a planet that has a usable magnetosphere, at very low speed.

Magsails may not be armored. The payload can be, and that armor will protect the magsail when it is furled.

### Magsail Radius and Energy Requirement

Thrust (tons)	Radius (miles)	Energy to activate (MW-hrs)
1	200	26
2	280	73
3	350	134
4	400	210
5	450	290
6	490	389
7	530	472
8	570	580
9	600	690
10	630	810
20	890	2,300
30	1,100	4,200
40	1,300	6,500
50	1,400	9,100
60	1,500	12,000
70	1,700	15,000
80	1,800	18,000
90	1,900	22,000

### Radius Equation

Radius is  $200\sqrt{\text{thrust in tons}}$

### Energy Equation

Energy is  $25.7\sqrt{\text{thrust in tons}^3}$

### Magsail Operation in a Plasma Wind

Thrust obtained from a plasma wind decreases as the four-thirds power of the distance from the source. The figure obtained above is standardized at 1 AU – Earth's orbit about Sol. Elsewhere, thrust can be calculated or interpolated from the thrust and gravitational acceleration table.

In addition to this outward (radial) acceleration, a magsail can also generate a sideways (tangential) thrust of up to 30% of the value calculated above. By changing the angular momentum around the sun, very sophisticated interplanetary orbits can be used that would be impractically expensive for reaction engines, and utterly impossible for solar sails.

A magsail cannot thrust inward, toward the sun. It can "tack," however, using tangential thrust to lower its orbital speed, and fall sunward. The acceleration of Sol's gravity at various distances is given in the table.

### Magsail Operation in a Magnetosphere

Another, equally useful mode of operation involves interaction with a magnetosphere.

From a magnetic point of view, a planet and a magsail can both be thought of as simple bar magnets. The magsail in a polar orbit can be oriented so that it is attracted to the pole it is approaching, thus increasing its orbital velocity. If it then switches off as it passes over the pole (so it won't be slowed by the attraction), it will move to a higher orbit. Alternately, it can orient so as to be repelled by the pole, directly levitating itself upward. This second technique is necessary to ground-launch a magsail, but it is very difficult, because the magsail must be maintained in an unstable orientation to do so. An exact analogy is balancing one bar magnet over another. If their poles are oriented so they attract, they will stay that way, and be pulled together. If the upper one is turned so that they repel, it will feel a lift, but it will also try to flip around to the attractive position. Similarly, a magsail repelled by a planet's magnetic field is extremely unstable, trying to flip over.

### Magsailing in the Solar System

The stellar plasma wind is no gentle zephyr. It is a flux of several million protons and electrons per cubic yard traveling at velocities gusting from 250 to 350 miles per second.

Then there are the *hazardous* environments. Some planets have strong magnetospheres, and some of those planets produce plasma winds of their own. The eddies and currents of these flows can hurl a magsail to tremendous velocities or twist its course sharply. A properly piloted magsail can execute amazing maneuvers while in these volumes. A poorly piloted magsail can be reduced in seconds to a tangle of junk tumbling helplessly out of control. Individual planets vary wildly in their magnetic characteristics, making Area Knowledge (Planet's Magnetosphere) very useful to a magsail ship pilot. Some examples from the Solar system are given in the following sections.

### Sol's Acceleration Equation

$g = 0.6/d^2$



## Earth

Earth has a remarkably strong magnetosphere that extends outward about 60,000 miles from Earth's surface (11 planetary radii). It is the only terrestrial world in the Solar system with an appreciable magnetic field. Magsails that can accelerate at greater than 60 milligees in the Solar wind at 1 AU can land on or take off from Earth's magnetic poles. (One is located on Bathurst Island, Northwest Territories, Canada; the other off the Adèlie Coast of Antarctica.)

## Jupiter

Jupiter's magnetosphere is a particularly exciting volume to sail. Unlike Earth's teardrop-shaped magnetosphere, Jupiter's is much flatter, more like a flounder. It extends about 50 planetary radii in the plane of Jupiter's orbit, but only about half that in the vertical direction. The magnetotail (the portion of the magnetic field drawn out by the Solar wind) periodically engulfs Saturn, a third of a billion miles away. Jupiter and its moons also produce a tremendous plasma wind. The four Galilean satellites together produce so much plasma that it escapes both on the sunward side of the magnetosphere and down the magnetotail as a very fast and very hot "planetary wind," substantially faster than the Solar wind.

Io in particular is very active geologically, spewing out an enormous disk of gas radiating outward from its orbit. The bulging shape of Jupiter's magnetosphere is caused by a billion-amp electric current in that sheet, which also causes the cloud to incandesce so energetically that the glow of its inner 20 million miles is visible from Earth. It is the largest permanently visible feature of the Solar system.

Magsails that can accelerate at greater than 5 milligees at 1 AU can maneuver as close to Jupiter's magnetic poles as desired, even entering the atmosphere – if the pilot's skill and nerves are up to the challenge.

## Saturn

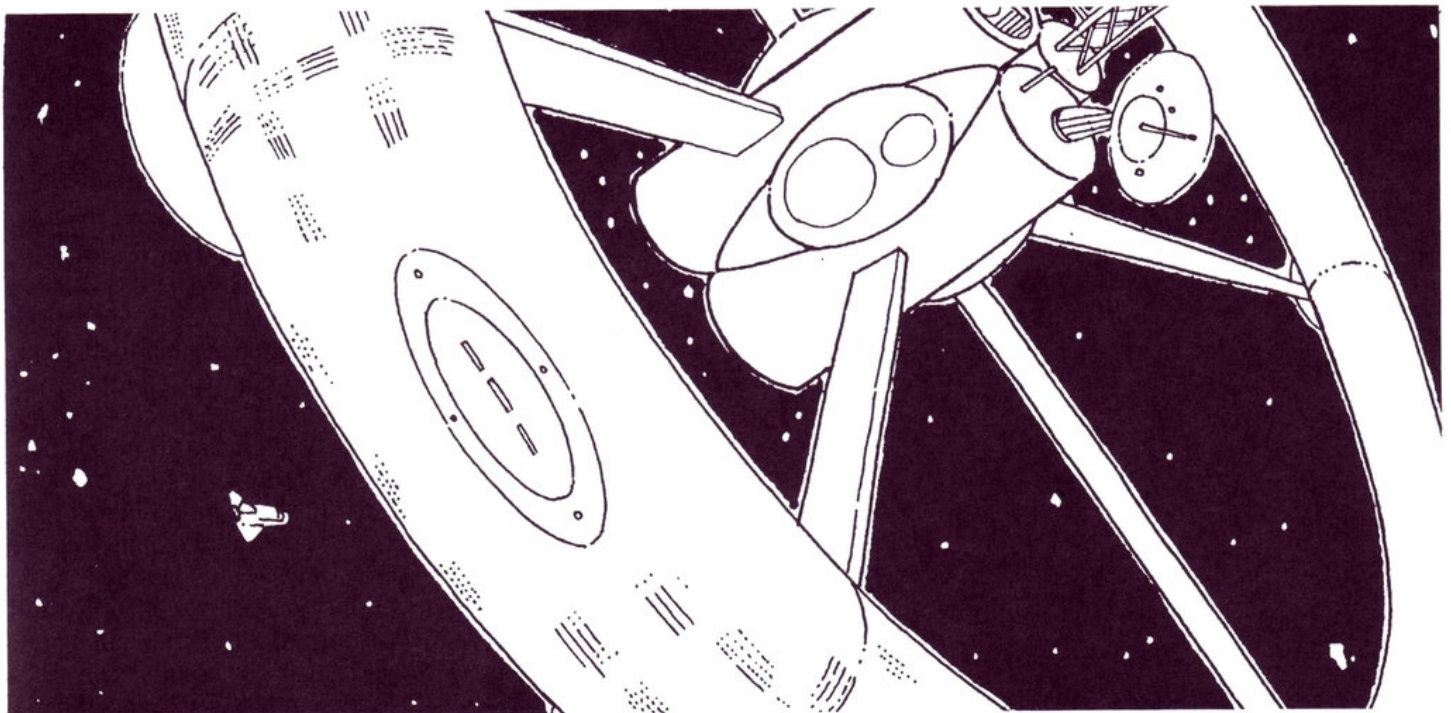
Saturn's magnetosphere is considerably smaller and less dynamic than Jupiter's. As noted above, Saturn and its magnetic shroud are periodically engulfed by Jupiter's magnetotail. The rings have major effects on the planet's magnetosphere, limiting the inward extent of the plasma surrounding the planet by absorbing any charged particles that reach them. Titan contributes strongly to the magnetospheric plasma. Magsails that can accelerate at greater than 50 milligees at 1 AU can maneuver as close to Saturn's magnetic poles as desired.

## Uranus

Uranus' plasma density is not very high, but its magnetic axis is offset by a third of Uranus' radius and tilted approximately  $59^\circ$  to the spin axis, which in turn is tipped at  $98^\circ$  to its orbital plane. Thus, the magnetic field is nearly perpendicular to the Solar wind at all times, though the whole configuration rotates daily about the planet-sun line. This fairly smooth helical twisting of the magnetotail is unique in the Solar system. Magsails that can accelerate at greater than 80 milligees at 1 AU can maneuver as close to Uranus' magnetic poles as desired.

## Neptune

Neptune has strong similarities to Uranus, magnetically. The magnetic axis is tilted  $47^\circ$  from the rotational axis and is offset by over half of Neptune's radius. Because Neptune's rotational axis is only tipped at  $23^\circ$  to its orbit, the magnetosphere does not smoothly twist as does Uranus'; it flops dramatically as the planet rotates, alternating daily between being nearly pole-on to the Solar wind, and nearly upright like all other planets. Magsails that can accelerate at greater than 16 milligees at 1 AU can maneuver as close to Neptune's southern magnetic pole (rotationally speaking; a compass would point to it as north) as



desired. An acceleration of 310 milligees at 1 AU is required to maneuver near the other pole. The difference is caused by the offset of the magnetic axis.

### Thrust and Gravitational

#### Acceleration at Various Distances from Sol

Planet	Distance (AU)	Thrust multiplier	Sol's acceleration (milligees)
Mercury	.39	3.5	4.0
Venus	.72	1.5	1.2
Earth	1	1	0.6
Mars	1.5	0.57	0.3
Ceres	2.8	0.26	0.08
Jupiter	5.2	0.11	0.02
Saturn	9.5	0.049	0.007
Uranus	19	0.019	0.002
Neptune	30	0.011	0.0007
Pluto	40	0.0074	0.0004

### High Accelerations

Sophisticated magsails can reach velocities that are an appreciable fraction of the speed of the stellar wind. No sail can travel downwind faster than the wind that is blowing it, and a sail's acceleration falls off as its velocity increases relative to wind speed. The ship's velocity could be determined by  $V = W - (W - V_0)e^{-\frac{t}{\tau}}$ , except that the wind density is also decreasing as the magsail moves away from the source. The combined effect is difficult to describe both accurately and simply.

### Compound Magsails

At higher tech levels, magsails consisting of two or more loops connected by a spar along their axes are introduced. Bi- and trisails produce more desirable magnetospheric boundary shapes, yielding much higher tangential thrusts. The analysis of such compound magsails could be the subject of a future article.

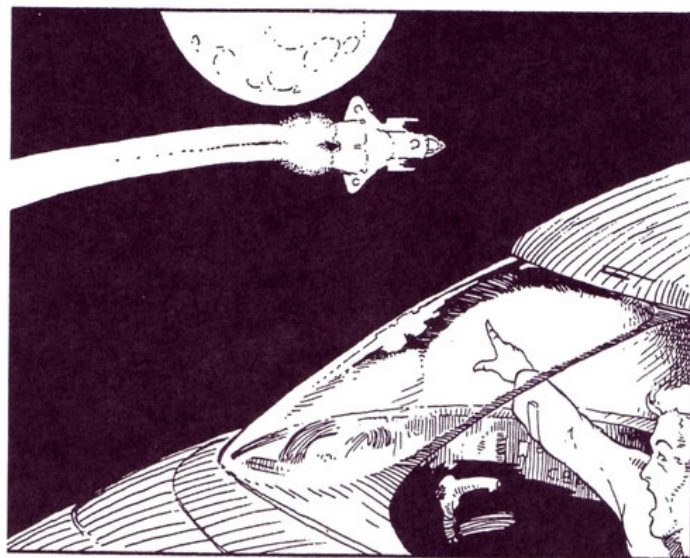
### Piloting (Magsail)

The skill specialization Piloting (Magsail) is necessary to safely operate a magsail ship. This is a computer-aided skill, so the proper programs will give significant bonuses. Events requiring skill rolls at various penalties include charging a magsail, taking off and landing, crossing the "bow shock" where the stellar wind meets a planet's magnetosphere, dealing stellar flares, passing through the magnetic turbulence caused by a satellite or ring and executing any maneuver that requires turning the sail.

## Bibliography

GMs interested in the details of magsail performance are strongly urged to consult the source literature.

D.G. Andrews and R.M. Zubrin, "Magnetic Sails and Interstellar Travel." *Journal of the British Interplanetary Society*, 1990. The first paper published, concerned primarily with the cost savings to other propulsion systems from the use of the magsail as an interstellar brake. Poorly edited



(many typos) and of use primarily to GMs running an interstellar campaign *without* FTL travel.

R.M. Zubrin and D.G. Andrews, "Magnetic Sails and Interplanetary Travel." *Journal of Spacecraft and Rockets*, April 1991. The technical description and very thorough analysis of the magsail for interplanetary travel. Excellent.

R.M. Zubrin, "The Magnetic Sail." *Analog Science Fiction & Fact*, May 1992. A version of the above paper edited for a non-technical audience. Useful for general concepts, inadequate for a full understanding.

Various, "sci.space." *Internet newsgroup*. Absolutely invaluable for detailed, precise information on a huge variety of subjects – such as data on planetary magnetospheres.

## We're Professionals (Don't Try This at Home)

GMs who like to fiddle with the numbers may use the full formula for a magsail's acceleration:

$$a = 0.59 \sqrt[3]{\frac{\mu_0 \rho^2 V^4 R_m}{I} \left( \frac{J}{\rho_m} \right)}$$

where

$a$  is acceleration in  $m/s^2$

$\mu_0$  is  $4\pi 10^{-7}$  N/amp<sup>2</sup>

$V$  is speed of the stellar wind ( $5 \times 10^5$  m/s for Sol)

$\rho$  is the density of the stellar wind ( $8.35 \times 10^{-21}$  kg/m<sup>3</sup> /  $R_s^2$  for Sol, where  $R_s$  is the distance from Sol in AU)

$R_m$  is the radius of the magsail in meters

$I$  is the current in the magsail in kiloamps

$J$  is the current density in amp/m<sup>2</sup>

$\rho_m$  is the density of the magsail's wire in kg/m<sup>3</sup>

Note that many of these variables are interrelated. An increase in current also raises the current density, unless the wire is made thicker, which increases the total mass of the magsail.



# Trouble at the High Tide Saloon

## Brawling, Western Style

By Ann Dupuis

A staple of Western adventures, the saloon brawl can liven up any town. This mini-adventure provides a floor plan for the High Tide Saloon and stats for the bartender, the pretty saloon girls, and some NPC (or PC) customers. Also included is a Brawling Cribsheet to help the GM keep track of Advanced Combat between hordes of drunken, angry fistfighters. The cribsheet provides rules for Special Actions (such as sliding someone down the bar) and DR and hit point information for saloon furnishings.

## The Saloon

The High Tide Saloon may be set in any town large enough to support a cowboy population. It's a two-story wooden building with a fancy facade.

The main room of the first floor is open to the second story. Half a dozen wooden tables are scattered around, along with appropriate chairs. (These aren't shown on the map, as the brawlers are sure to relocate them.) The long bar across from the door is made of polished oak, and is for standing drinkers only. The wall behind it sports a long fancy mirror and shelves for bottles and glasses. There's a piano to one side of the room, although the High Tide doesn't currently employ a piano player.

Guthry Fullwright, the saloon's owner, and one or two bartenders stand behind the bar, serving anyone who comes up to them, while the pretty saloon girls attend to the seated customers.

Carpeted stairways on either side of the room lead up to the second floor. Fancy kerosene chandeliers hang from the 20 foot ceiling to about 9 feet above the floor. Each may be raised or lowered by strong cords fastened to belaying pins in the walls.

The rear of the building houses two storage rooms and a short hallway to the back door. Beyond is the "privy," a small outhouse in the alley behind the saloon.

The second floor sports a balcony with a wooden banister. Its rooms may be used by the pretty saloon girls to entertain customers. They're furnished nicely, but not extravagantly. Each "guest room" has a wardrobe containing fresh linens for finicky customers.

## The Customers

The High Tide is a favorite drinking spot for cowboys from nearby ranches. It also attracts a fair number of townspeople and many strangers who're "just passing through."

Two big cattle spreads in the area – the Lazy S and the Bar W – are known rivals. When ranch hands from both find themselves in the High Tide at the same time, trouble is inevitable.

## Involving the Player Characters

### Cowboy Factions

The easiest way to involve the player characters is to have them work for either the Lazy S or the Bar W ranch. (With six or more player characters, the brawl works well as a one-shot adventure with half the PCs being from the Lazy S Ranch and the other half from the Bar W.) A few rounds of insults from either side should be enough to start a grand fight. If a couple of cowboys from each faction happen to be upstairs while their buddies are having a few drinks downstairs, the action will quickly involve both levels of the saloon.

### Stepping In for a Drink

If the player characters are strangers who have just stepped into the High Tide Saloon to wet their whistles, they can become embroiled in a brawl any number of ways.

The GM can let the PCs settle in with a round of drinks and introduce them to the girls. While the characters enjoy their whiskey, a group of cowboys walk in. Seeing their rivals already at their favorite table, they begin exchanging insults and innuendos. The GM should get as many of the NPCs into action as possible – the bartenders will warn against any fighting; the girls will try to head off trouble; the cowboys will throw increasingly insulting comments at one another; a couple of customers will hurriedly leave the saloon. The PCs will probably stay out of the fight at first, content to watch as the scenario unfolds. But then someone crashes through the PCs' table . . .

Or, the PCs can walk into the saloon to find the fight already well under way. In the very first round, one of the brawlers dodges a punch, which of course carries through into the face of the nearest PC!



### It's the Law

In a Lawman campaign, the players may take the roles of a sheriff or marshal and his deputies. In this case, they should obviously attempt to break up the fight. One or more of them may be in the saloon before the fight breaks out, though this may make a short adventure unless the GM makes sure things get out of hand immediately. Once a lawman is injured, the PCs are certainly entitled to make forceful arrests.

### Game-Mastering the Brawl

Getting the player characters into the High Tide Saloon should be easy. A hard day's ride on a dusty trail and the promise of a drink will draw anyone but a teetotaler to the saloon. As for the teetotaler, the saloon girls or an invitation to a game of cards may turn the trick.

Once the PCs are in the saloon, let them roleplay as long as they're having fun. Keep track of the drinks they toss back as you have the saloon girls fawn over them, the bartenders pour out whiskey and advice for them, and the other customers chat or gamble with them. You should have the player characters make occasional HT rolls to see if their IQ or DX is affected by the alcohol they've been drinking. Every failed roll results in a -1 penalty to one or the other (GM's choice). Critical failure results in a -3 penalty. Results are cumulative, and sobering back up takes time. Alternately, GMs who own *Callahan's Crosstime Saloon* can use the drinking rules presented on pp. 53-57.

Before things get slow (i.e., boring), introduce the catalyst – insults, bad tempers, or an Odious Personal Habit that can't be ignored – to get someone swinging at someone else. Depending on the PCs' relationship to the principals, this may mean hounding one of the player characters with an obnoxious NPC until he finally breaks down and tries to

flatten the irritant, or simply letting a non-player character let fly at a PC or another NPC.

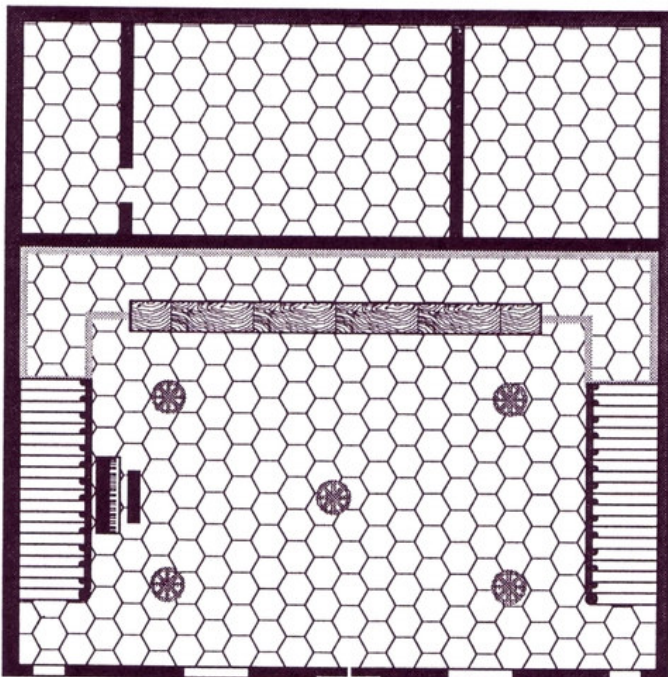
Once the fighting starts, the brawl will pick up momentum as more characters get drawn into it. Encourage imaginative tactics (swinging on chandeliers, breaking bottles over skulls, throwing insults as well as punches) and innovative use of the saloon's furniture.

Try to discourage lethal attacks. If a player character goes for a gun, remind him that shooting first is murder, and murder's a hanging offense. (Guthry Fullwright will do his best to discourage any gunplay – with his shotgun, if necessary – although this may bring a rollicking good brawl to a premature close.) Keeping most of the characters involved in close combat will help, too. If you're dead set against a potentially lethal brawl, have the boys check their guns at the door. On the other hand, a brawl that breaks into a shootout can be a lot of fun, too!

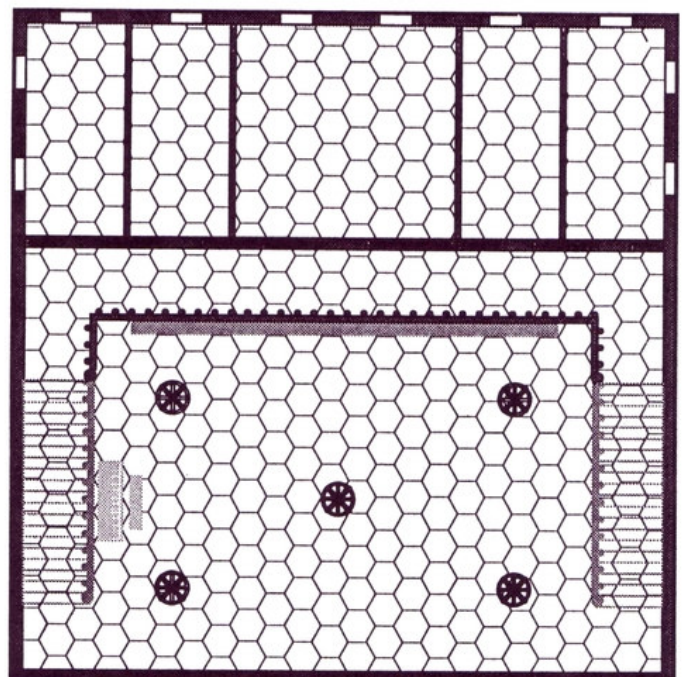
After a while, the brawl will likely die down of its own accord. (If guns came into play, it may be because everyone's dead.) Otherwise, it could be due to the "good guys" talking sense into the bad-tempered participants, or to one side having a definite victory over the other. The best brawls are free-for-alls, with no real winners – just a lot of broken furniture and bruised drunkards inordinately pleased with themselves.

If the players always try a verbal approach before a physical one, the brawl may not really get underway. If the players are having a good time roleplaying, this isn't a problem. If they really want action, you may have to nudge it along a bit. Make one of the bullying NPCs too drunk to listen to talk of any kind, and you'll be well on your way to a fight.

At the other end of the spectrum are player characters with itchy trigger fingers, or who simply don't know when to quit. With any luck, their comrades will talk some sense into them. Failing that, increasingly dire warnings from



FIRST FLOOR



SECOND FLOOR

Guthry Fullwright, or intervention by one or more of the innocent bystanders (see below) may be necessary.

Whenever you (or the players) tire of the brawl, you may have the law step in to cool things down. The marshal and his friends may take a talk-some-sense-into-the-boys approach, or apply brute force. In dire circumstances, the GM can call in as many brawny townsmen (the blacksmith, etc.) as are needed to forcibly subdue the brawlers and lock them in the town jail until they've come to their senses.

## Campaign Crossovers

Hot tempers and lots of things to smash and throw are all a good brawl needs. This scenario can work in almost any setting – just keep the action going, encourage imaginative brawling tactics, and try to keep lethal weapons out of the picture.

For a fantasy or swashbuckling brawl, the High Tide saloon becomes a tavern; the marshal and his friends be-

come the city watch; rival adventurers (or the King's Musketeers and the Cardinal's Guards) replace the Lazy S and Bar W ranch hands. See *GURPS Swashbucklers*, p. 31, for descriptions of 17th-century taverns and their clientele.

A *Cliffhangers* version may center around rival gangs in a speak-easy, with flappers instead of saloon girls and Tommy guns instead of Colt Peacemakers. Fear of the coppers (or simply not wanting to start a street war) should be enough to keep the gunplay to a minimum.

Out in space, a confrontation between the Space Marines and some hot-shot starfighter pilots could launch an old-fashioned brawl. In a gritty cyberpunk world, trouble-shooters from rival companies may find themselves standing too close to one another – so could street samurai and corporate security. Even a Supers campaign can benefit from a knock-down, drag-out fistfight now and then, though it wouldn't be easily confined to a single building.

## High Tide Folks

The following section lists NPCs and possible PCs to populate the High Tide Saloon. There are ranch hands from the two nearby ranches, saloon employees, innocent bystanders and lawmen.

### "Tennessee" Waters, Lazy S Foreman

Early 40s, 5'10", 155 lbs. Well-tanned skin, black hair, black eyes.

ST 11, DX 12, IQ 13, HT 11.

Basic Speed 5.75; Move 5.

*Advantages:* Absolute Direction; Absolute Timing; Alertness (+2); High Pain Threshold.

*Disadvantages:* Addiction (Chewing tobacco); Code of Honor (Cowboy); Lecherousness; Odious Personal Habit (Spits constantly); Stubbornness.

*Quirks:* Loyal to his friends; Feels responsible for "Lucky" (see below); Bowlegged (-1 to Jumping skill); Always wears red bandana around his neck.

*Skills:* Animal Handling-13; Area Knowledge (Cow towns)-13; Brawling-12; Fast-Draw (Pistol)-13; Fast-Talk-13; Guns (Pistol)-17; Guns (Rifle)-15; Heraldry (Brands)-13; Knife-12; Lasso-13; Leadership-14; Naturalist-14; Riding (Horse)-14.

*Weapons:* Colt Peacemaker (see the *Weapon Table*) in a Slim Jim holster high on his belt on his right side (no modifier to Fast-Draw skill); Winchester WD, .44-40 rifle in scabbard on horse tethered to the hitching post outside.

Tennessee Waters is well-liked by his men. While at first he'll try to defuse any tense situation, if the other side starts a brawl, Tennessee won't hold back.

### "Lucky" Rogers, Lazy S Hand

Age 16, 5'8", 140 lbs. Freckles, red hair, green eyes.

ST 10, DX 13, IQ 12, HT 11.

Basic Speed 6; Move 6.

*Advantages:* Extraordinary Luck.

*Disadvantages:* Code of Honor (Cowboy); Youth.

*Quirks:* Likes to try risky things.



*Skills:* Acrobatics-12; Animal Handling-12; Axe/Mace-11; Dancing-11; Guns (Pistol)-16; Guns (Rifle)-15; Lasso-14; Leatherworking-11; Riding (Horse)-14; Sleight of Hand-11; Teamster (Horse)-12; Throwing-12; Veterinary-9.

*Weapons:* Smith & Wesson Model 2 revolver, in a Slim Jim holster high on his belt on his right side (no Fast-Draw modifier); Bowie knife tucked into his belt on his left side (default skill of Knife-9, or Throwing-12).

Lucky is Tennessee Waters' nephew. His extraordinary luck (usable every half hour) contributes to his cocky attitude and risk-taking. Lucky hasn't been a cowboy long, but he takes his honor seriously.

### **Herm Sanders, Lazy S Hand**

Age 24, 6'1", 185 lbs. Ruddy complexion, dark brown hair, brown eyes.

ST 14, DX 12, IQ 9, HT 11.

Basic Speed 5.75; Move 5.

**Advantages:** Animal Empathy; Combat Reflexes; High Pain Threshold; Toughness (DR 1).

**Disadvantages:** Addiction (Cigarettes); Code of Honor (Cowboy); Compulsive Carousing; Impulsiveness.

**Quirks:** Eats his cigarette butts.

**Skills:** Animal Handling-13; Brawling-12; Carousing-10; Gambling-9; Guns (Pistol)-14; Guns (Rifle)-12; Heraldry (Brands)-10; Lasso-13; Riding (Horses)-15; Singing-12; Throwing-11.

**Weapons:** Colt Peacemaker in Slim Jim holster at his right side (no Fast-Draw modifier); new Winchester '73 in a scabbard on his horse.

Herm tends to be the strong, silent type. (The Bar W ranch hands think he's dumb.) Although Herm's not bad-tempered, his impulsiveness may make him quick to respond to insults. He'll use his fists before he uses his guns.

### **"Tex" Rollins, Bar W Foreman**

Age 38, 5'11", 150 lbs. Slightly pockmarked face, dirty blond hair, brown eyes.

ST 10, DX 13, IQ 13, HT 12.

Basic Speed 6.25; Move 6.

**Advantages:** Combat Reflexes; Toughness (DR 2).

**Disadvantages:** Addiction (Cigars); Alcoholism; Impulsiveness; Overconfidence.

**Quirks:** Talks to his horse; Carries his sweetheart's locket around his neck; Loves to yell, "Let's ride!"; Spits cigar ends at people he doesn't like.

**Skills:** Animal Handling-12; Blacksmith-13; Brawling-14; Equestrian Acrobatics-13; Guns (Pistol)-17; Guns (Rifle)-15; Lasso-14; Riding (Horses)-14; Survival (Plains)-13.

**Weapons:** Colt Peacemaker (in a flap holster high on his belt at his right side; -2 to Fast-Draw).

Tex's boss doesn't like the Lazy S Ranch, so Tex doesn't like the Lazy S ranch hands. While he's not likely to start a fight himself, he won't discourage his men from doing so.

### **Jake Trumbull, Bar W Hand**

Age 33, 5'11", 160 lbs. Deeply-tanned, leathery skin, greasy black hair, black eyes.

ST 12, DX 12, IQ 11, HT 12.

Basic Speed 6; Move 6.

**Advantages:** High Pain Threshold; Toughness (DR 1).

**Disadvantages:** Alcoholism; Bad Temper; Bully.

**Quirks:** Kicks stray dogs; Favorite insult is to hawk and spit; Rolls cigarettes but doesn't light them.

**Skills:** Area Knowledge (Cow towns)-11; Blacksmith-12; Brawling-13; Carousing-12; Carpentry-10; Dancing-11; Fast-Draw (Pistol)-12; Gambling-11; Guns (Pistol)-15; Guns (Rifle)-15; Knife-15; Knife Throwing-14; Lasso-13; Riding (Horses)-13; Speed-Load (Rifle)-12.

**Weapons:** Smith & Wesson Model 2 revolver in his right coat pocket (-4 to Fast-Draw); Arkansas toothpick (a straight-bladed knife with a point and a double edge; use stats for the Bowie knife) in a sheath on his right boot; Winchester WD rifle, left at home.

Jake is an unpleasant person. He looks rough, smells bad and likes to bully people. Although he can rope and ride well, he spends more time blacksmithing and being a handyman than working the cattle. The Bar W keeps him around for rodeo contests and range wars.



### **"Kid" Cody Grange, Bar W Hand**

Age 16, 5'7", 135 lbs. Fair-skinned, black hair, blue eyes.

ST 10, DX 14, IQ 11, HT 13.

Basic Speed 6.75; Move 6.

**Advantages:** Ambidexterity; Animal Empathy; Combat Reflexes; Musical Ability +3.

**Disadvantages:** Bad Temper; Impulsiveness; Overconfidence; Stubbornness; Youth.

**Quirks:** Dislikes being called "Kid" except by friends.

**Skills:** Animal Handling (Cattle)-15; Brawling-14; Carousing-15; Fast-Draw (Pistol)-16; Guns (Pistol)-17; Lasso-14; Musical Instrument (Harmonica)-14; Riding (Horses)-17; Survival (Plains)-11.

*Weapons:* A pair of Remington .44-40 revolvers, worn in Slim Jim holsters low on his hips (+1 to Fast-Draw standing; -2 sitting).

Kid Cody likes to think he's tough. He practices drawing and firing every chance he gets. He's never killed anyone, although he might try if riled enough. Cody doesn't love anything but "Ol' Bag-o-bones," his mustang pony, and himself. He'd rather be with animals than people – they don't try to boss him around.



### **Guthry Fullwright, Saloon Owner**

Age 31, 6', 165 lbs. Fair skin, brown hair, brown eyes, balding.

ST 13, DX 11, IQ 12, HT 10.

Basic Speed 5.25; Move 5.

*Advantages:* Charisma +1, Comfortable Wealth (2x starting wealth).

*Disadvantages:* Addiction (Cigars); Code of Honor (Code of the West); Lecherousness; Overweight.

*Quirks:* Refers to a busy night as "the tide's come in;" Gives lady customers their first drink free.

*Skills:* Area Knowledge (the town and area)-12; Brawling-11; Carousing-11; Fast-Talk-12; Gambling-12; Guns (Shotgun)-13; Merchant-14; Streetwise-12.

*Weapons:* Shotgun (behind the bar) – 20-gauge, hammerless, double-barreled: Dmg 3d-2, Rcl -3, ST 11. Firing both barrels simultaneously avoids the Rcl modifier, and increases ST by 25% and Rcl by 50%. The shotguns behind the bar are loaded with birdshot. 1/2D is 5 yards; 1/4D is 6 yards. Most target materials (including human flesh) get a +1 to DR at 1/4D range. Each die of damage is rolled separately for penetration against DR – the -2 modifier applies to the total damage that gets through.

Guthry owns the "High Tide Saloon." He works as bartender on busy nights, along with two employees. He

knows he can get the Lazy S and Bar W ranch owners to pay for any damages (plus a bit extra), so he'll mostly stay out of the way. If the boys want to rough it up a bit, fine. Too much damage to the bar's furnishings (a broken piano, for instance) will make him mad, though, and Guthry has no aversion to wading in and knocking a few heads around himself. If guns come out, he'll send Harley, one of the bartenders, to fetch the marshal.

### **Richard Coleman, Bartender**

Age 47, 5'8", 170 lbs. Reddish face, mouse-brown hair, brown eyes, balding.

ST 10, DX 12, IQ 13, HT 11.

Basic Speed 5.75; Move 5.

*Advantages:* Alertness +2; Immunity to Disease.

*Disadvantages:* Compulsive Gambling.

*Quirks:* Forever giving up gambling; Always talks about his sister back east.

*Skills:* Area Knowledge (the town)-13; Fast-Talk-13; Gambling-15; Guns (Pistol)-14; Guns (Rifle)-13; Guns (Shotgun)-13; Knife-12; Merchant-13; Meteorology-11; Riding (Horses)-11; Streetwise-13; Throwing-12.

*Weapons:* Shotgun (behind the bar). See Guthry Fullwright's description for stats.

Richard is a nice sort of fellow, and a little overweight. He likes to talk to any customers leaning against the bar. He's always alert for trouble, though, and will try to forestall any fighting. If necessary, he'll fire the shotgun into the ceiling. (The underside of the balcony has more than a few pellets in it.)

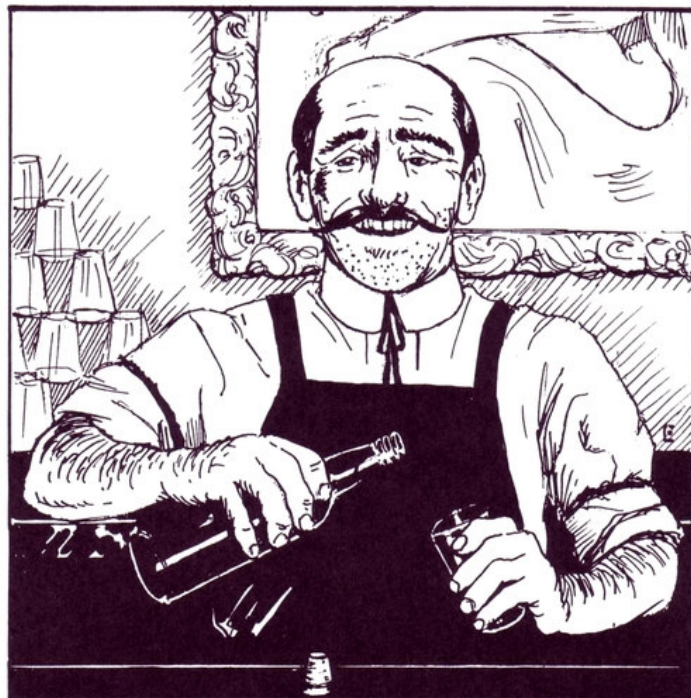
### **Harley Morrison, Bartender**

Age 45, 5'8", 140 lbs. Dark brown hair, tanned skin, slight scar above right cheek.

ST 9, DX 14, IQ 11, HT 11.

Basic Speed 6.25; Move 6.

*Advantages:* Ambidexterity.





*Disadvantages:* Cowardice; Poverty (Struggling); Vow (Minor – no more cheating or thieving).

*Quirks:* Mild kleptomania (Will rolls at +2); Flourishes bar utensils; Loves to gamble.

*Skills:* Acting-12; Carpentry-10; Climbing-13; Cooking-10; Fast-Talk-11; Gambling-13; Guns (Pistol)-14; Guns (Shotgun)-14; Holdout-12; Lockpicking-12; Merchant-11; Pickpocket-14; Riding Horses-12; Savoir-Faire-11; Sleight of Hand-14; Stealth-14; Streetwise-11.

*Weapons:* There are two shotguns behind the bar, but Guthry Fullwright and Richard Coleman are likely to grab them first. That's just fine with Harley.

Harley is a retired thief and (cheating) gambler. He's been on the straight and narrow for nearly a year now, and is having a tough time of it. Tending bar in the evenings supplements his earnings as a carpenter's assistant. He likes to show off his sleight-of-hand when serving customers. At the first sign of a fight, Harley will duck behind the bar and stay there. If Guthry sends him for the marshal, Harley does his best to keep himself covered as he runs for the door.



### *Jennie Blake, Saloon Girl*

Age 22, 5'7", 135 lbs. Rosy complexion, auburn hair, green eyes.

ST 10, DX 12, IQ 12, HT 12.

Basic Speed 6; Move 6.

*Advantages:* Attractive (+1 reaction); Immunity to Disease; Musical Ability +5.

*Disadvantages:* Code of Honor (Never cheat a paying customer); Lecherousness; Poverty (Struggling); Reputation as a "Soiled Dove" (-1 reaction).

*Quirks:* Bends over while serving drinks; Fiddles with her hair when flirting.

*Skills:* Acting-12; Bard-12; Carousing-12; Dancing-12; Fast-Talk-12; First Aid-12; Gambling-12; Guns (Pistol)-13; Holdout-11; Merchant-12; Performance-11; Pickpocket-11; Savoir-Faire-13; Sex Appeal-14; Singing-12.

*Weapons:* Knuckleduster, .32 (in garter).

Jennie is a "spirited" girl, well able to take care of herself. She'll try to keep any fight from breaking out by distracting the most belligerent customer. Once fists start to fly, she'll gladly help the "good guys" (the handsome or honorable ones) by knocking any available "bad guy" over the head with a whiskey bottle.



### *Sally Mae Ryan, Saloon Girl*

Age 21, 5'6", 135 lbs. Fair skin, blonde hair, blue eyes. ST 9, DX 12, IQ 11, HT 10.

Basic Speed 5.5; Move 5.

*Advantages:* Beautiful (+2/+4 by opposite sex).

*Disadvantages:* Reputation as a "Soiled Dove" (-1 reaction).

*Quirk:* Looking for "Mr. Right."

*Skills:* Area Knowledge (General, many Western towns)-10; Dancing-13; Guns (Pistol)-12; Sex Appeal-10; Singing-12.

*Weapons:* Colt one-shot, .41 (in garter).

With her good looks and talent, Sally Mae has worked in several saloons in a number of towns. She may "entertain" good-looking customers (or reasonably clean ones) in an upstairs "parlor" for additional money. (She'll ask for \$10 – double that for anyone she doesn't like the looks of.) She'll try to distract the ranch hands before the fight breaks out, hoping to avoid any trouble. Failing that, she'll try to stay out of the way.

### *Scully Westwood, Ex-Gunslinger*

Age 42, 5'11", 160 lbs. Tanned skin, salt-and-pepper hair and beard.

ST 12, DX 13, IQ 12, HT 10.

Basic Speed 5.75; Move 5.

*Advantages:* Combat Reflexes; High Pain Threshold; Luck; Reputation (Fast gun, +2).

*Disadvantages:* Delusion (Minor: Thinks the unarmed man he killed is following him); Enemies (young guns looking for a name); One Eye (Lost one in a gunfight: -1 to DX in combat, -3 to throwing and ranged weapons); Stubbornness; Reputation (Killed an unarmed man, -2).

*Quirks:* Dresses like a riverboat gambler; Likes to sound educated and cultured.

*Skills:* Fast-Draw (Pistol)-16; Fast-Talk-12; First Aid-12; Gambling-12; Guns (Pistol)-15; Guns (Rifle)-12;

Knife-14; Riding (Horses)-12; Sleight of Hand-12; Speed Load (Pistol)-12; Speed Load (Rifle)-12.

*Weapons:* Remington .44-40, worn in a Slim Jim holster high on the belt on his left side (+2 to Fast-Draw standing; +1 sitting).

Scully's just passing through town on his way to nowhere. He hasn't heard that Robert Winder, another gunslinger, is already in town. If they meet, there may be trouble . . .

### **Major Edward Latham, Army Post Commander**

Age 32, 5'9", 155 lbs. Black hair, green eyes, clean-shaven.

ST 11, DX 12, IQ 11, HT 11.

Basic Speed 5.5; Move 5.

*Advantages:* Combat Reflexes; Military Rank 4

*Disadvantages:* Alcoholism; Code of Honor (Officer's); Duty (Army)

*Quirks:* Dislikes being interrupted while drinking.

*Skills:* Administration-11; Animal Handling (Horses)-10; Area Knowledge (Post and its territory)-13; Diplomacy-12; Fishing-11; Gambling-9; Guns (Pistol)-14; Guns (Rifle)-14; Heraldry (Military)-11; Intelligence Analysis-11; Interrogation-10; Law-10; Leadership-12; Riding (Horse)-13; Savoir-Faire-10; Sign Language-10; Strategy-11; Tactics-12.

*Weapons:* Colt Peacemaker (also known as the Army Colt), worn in a flap holster high on his belt on his left side (-1 [to Fast-Draw] sitting).

Major Latham is in town enjoying a quiet drink before going on leave to visit his mother. He'll ignore any trouble for as long as he can.

### **Merriwether "Hawk" Kingsbury, Scout**

Age 38, 5'10", 160 lbs. Weather worn skin, black hair, black eyes, (a touch of Indian ancestry).

Basic Speed 5.75; Move 5 (+1 for Running skill).

*Advantages:* Absolute Direction; Absolute Timing; Eidetic Memory (level 1).

*Disadvantages:* Bad Temper; Compulsive Behavior (Carousing); Odious Personal Habit (Slugs anyone who calls him "Merriwether" or "Merry," except his mother.)

*Quirks:* Loves a good brawl; Hates cowardice.

*Skills:* Acrobatics-13; Animal Handling (Horses)-9; Area Knowledge (Plains)-12; Area Knowledge (New Mex-



ico Territory)-12; Axe/Mace-10; Boating-10; Brawling-14; Camouflage-12; Carousing-14; Detect Lies-9; Equestrian Acrobatics-9; Fast-Talk-10; First Aid-11; Gambling-10; Guns (Pistol)-14; Guns (Rifle)-14; Heraldry (Military)-10; Heraldry (Tribes)-10; Intelligence Analysis-9; Interrogation-10; Knife-11; Naturalist-9; Packing-9; Riding (Horse)-11; Running-9; Scrounging-11; Sign Language-10; Stealth-11; Survival (Plains)-10; Survival (Woods)-10; Survival (Desert)-10; Throwing-10; Tracking-11.

*Weapons:* Colt Peacemaker worn in a flap holster high on his belt on his left side (-1 [to Fast-Draw] sitting); Winchester '73 in scabbard slung over his back; Bowie knife in scabbard on his belt at his right side.

"Hawk" has been an unsuccessful trapper, a slightly more successful buffalo hunter, and a scout for the Army. He's traveling with the Major for as long as their roads lead in the same direction. He knows Major Latham hates to have his drinking interrupted – once a brawl breaks out, Hawk will jump in and try to steer it away from the Major's table.

### **Ike Woods, Town Marshal**

Age 31, 5'10", 155 lbs. Tanned and weathered skin, black hair, blue eyes.

ST 11, DX 13, IQ 12, HT 11.

Basic Speed 6; Move 6.

*Advantages:* Combat Reflexes, Legal Enforcement Powers (Township), Reputation among townsfolk as a good lawman +1, Status +1.

*Disadvantages:* Addiction (Chewing tobacco); Duty (to law-abiding citizens); Honesty; Odious Personal Habit (Mumbles around his tobacco chew); Reputation -1 (with outlaws: too honest to bribe).

*Quirks:* Wears big, jangly spurs.



**Skills:** Administration-11; Area Knowledge (the town and area)-12; Brawling-13; Fast-Draw (Pistol)-15; Guns (Pistol)-16; Law-11; Leadership-12; Riding (Horses)-13.

**Weapons:** Smith & Wesson Model 2 (one high on each hip, in Slim Jim holsters – no Fast-Draw modifier).

Ike has served as the town marshal for almost a year now. He's up for reelection, and the opposing candidate is backed by the BarW ranch. Ike suspects the BarW of cattle rustling.

### Lester Northrop, Assistant Marshal

Age 28, 5'11", 155 lbs. Tanned skin, blond hair, blue eyes.

ST 11, DX 12, IQ 10, HT 11.

Basic Speed 5.75; Move 5.

**Advantages:** Acute Hearing +2; Attractive; Legal Enforcement Powers (Local).

**Disadvantages:** Alcoholism; Code of Honor (Lawman's).

**Quirks:** Likes to chew pine gum; Pats pretty saloon girls on the behind; Not married, despite numerous hopeful maids in the town.

**Skills:** Animal Handling-10; Area Knowledge (the Town)-10; Axe/Mace-12; Boating-11; Carousing-10; Climbing-13; Dancing-12; Fast-Talk-10; First Aid-10; Fishing-11; Gambling-11; Guns (Pistol)-14; Guns (Rifle)-14; Knife-13; Law-8; Naturalist-9; Packing-9; Prospecting-8; Riding (Horses)-13; Sign Language (Plains Indian)-8; Survival (Woods)-10; Teamster (Oxen)-9; Throwing-11; Tracking-10; Whip-12.

**Weapons:** Two Colt Peacemakers (one high on each hip, in Slim Jim holsters – no Fast-Draw modifier).

Lester has been assistant marshal for as long as Ike's been marshal, and hopes to keep his job through the election. It doesn't pay much, but the badge helps attract the ladies. He'd have more money if he didn't spend it all on rotgut whiskey.

### Steve Clayborne, Deputy Sheriff

Age 31, 6', 180 lbs. Light brown hair, golden brown eyes, freckled skin.

ST 12, DX 12, IQ 11, HT 11.

Basic Speed 5.75; Move 5.

**Advantages:** Alertness +1; High Pain Threshold; Legal Enforcement Powers (Local); Toughness (DR 1).

**Disadvantages:** Addiction (Tobacco); Code of Honor (Lawman's); Color Blindness; Honesty.

**Quirks:** Loves riding posse; Bowlegged (-1 to Jumping).

**Skills:** Animal Handling-9; Area Knowledge (County)-11; Brawling-14; Detect Lies-8; Fast-Draw (Pistol)-11; Fast-Draw (Rifle)-12; Guns (Pistol)-14; Guns (Rifle)-15; Holdout-9; Interrogation-10; Lasso-11; Law-9; Politics-9; Riding Horses-12; Speed-Load (Rifle)-12; Teamster-10.

**Weapons:** Colt Peacemaker, worn in Slim Jim holster high on his belt at his right side (no Fast-Draw modifier); Winchester '73 in a scabbard on his horse outside the Marshal's office.

Steve Clayborne's in town delivering a package from the county sheriff to Marshal Woods. He'll help break up the brawl if Ike's called in to the High Tide Saloon.

## Weapon Table

Type	Malf	Damage	SS	Acc	1/2D	Max	Wt	RoF	Shots	Load	ST	Rcl	Year	Cost	Notes
<b>Magazine Rifles</b>															
Winchester WD, .44-40	crit <sup>4</sup>	2d+1	13	6	250	1,900	7.1	2	17+1	Win	10	-1	1866	18	HO-5
Winchester '73, .44-40	crit <sup>4</sup>	3d	13	7	300	2,200	7.1	2	Var.	Win	10	-2	1873	20	HO-5
<b>Shotguns</b>															
Break-Open Shotgun	crit <sup>2</sup>	var	13	5	25	150	8	var	1 or 2	BL	var	var	1863	15	HO-5
<b>Revolvers</b>															
S&W, Model 2, .32	crit <sup>4</sup>	1d+1	10	2	120	1,200	2	1	6	SW	10	-1	1861	10	HO, F
Colt Peacemaker, .45	crit <sup>4</sup>	2d+1	11	2	150	1,700	2.5	1	6	CR	11	-2	1873	10	HO, F
Remington, .44-40	crit <sup>4</sup>	2d	11	2	160	1,800	2.5	1	6	CR	11	-2	1875	15	HO, F
<b>Stingy Pistols</b>															
Colt One-shot, .41	crit <sup>2</sup>	1d	9	1	15	400	.25	1/L	1	BL	10	-1	1856	3	HO+3
Knuckleduster, .32	crit <sup>4</sup>	1d-1	9	1	15	250	.5	1/2	5	SW	10	-1	1866	7	HO+3, sap

Type	Damage	Amt	Reach	Cost	Wt	ST	Notes
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### Knife (DX-4)

Bowie Knife	cut imp	sw-2 thr	C,1 C	2	1	-	Throwable.
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### Notes:

For numbered notes, see p. OW90.

**HO:** Holdout modifier for any attempt to conceal the weapon. Weapons with no HO modifier cannot normally be concealed.

**Sap:** Knuckledusters are useful in close combat, adding +2 to damage done with a fist.

**F:** The weapon can be fired by Fanning or Slipping the Hammer. See sidebar, p. OW80.

# Crib Sheet

## Brawling Attacks and Close Combat

**Kicking.** (p. B101) Roll vs. DX-2, Brawling-2, or Karate. Thr/crush damage (+1 with boots). Roll vs. DX or skill to maintain feet if missed.

**Punching.** (p. B101) Roll vs. DX, Brawling, or Karate. Thr-2 damage. Brass knuckles or medium object: +2. Small, heavy object: +1. Haymakers, roundhouses, other hard swings: -2 to hit, damage Sw-2. Breakable stuff (bottles, etc.) take same amount of damage as they give.

**Slam Attack.** (pp. B112-113, 106) Quick Contest of DX; defender at -2 if not standing or if attacker entered from side. Automatic win from behind. If attacker loses, must move 2 more hexes (or rest of Move). If attacker wins or ties: quick contest of ST, +2 if foe moved more than 1 hex toward attacker, or if attacker ran last turn and moved at least one hex this turn. +2 with medium or large shield; -2 if foe has shield. +2 from behind. Loser falls down; may be knocked backwards (Quick Contest of ST; if fallen fighter loses, knocked back 1 hex per 2 points he lost by, round down. If knocked back into someone, that character must roll vs. ST+3 or DX+3 to avoid falling). Damage from knockback into something is as if he were thrown (see p. B90). Normal slam attack does no damage to either fighter. Critical failure of ST roll results in Stunned character. See p. B113 for Flying Tackle.

**Throwing Objects.** (p. B90) Throwing skill or DX-3. 1 lb or less can be thrown 3.5 yards times ST. Thrown characters go .05 yards times ST and take damage as per p. B90 (grapple first).

**Wild Swings.** (p. B105) Blow thrown at foe to side or rear: -5 to hit, max 9. No +4 all-out attack bonus.

## Special Actions

**Balconies.** See p. B89 for climbing modifiers. With a successful Acrobatics roll, allow generous modifiers to climbing skill or time. Jumping from balcony to chandelier requires Acrobatics; a good roll lets PC swing to any reasonable spot. Player can get handhold on high balcony with Jumping skill roll. ST roll to pull himself up quickly; Acrobatics roll to vault over railing in 1 second instead of climbing in 2-3. Failure requires extra seconds to accomplish; critical failure means disaster.

**Jumping Through Windows.** Acrobatics roll, plus Jumping roll if more than 2 hexes away. Character must have at least 1 movement point left when contacting window. Acrobatics made by 5 or more means character is in the hex on opposite side of window, on feet & unhurt. Otherwise 1d-3 cutting damage (not on face). Failed roll causes 1d-3 damage; character falls down, occupying 2 hexes on other side. Going through a window ends a character's turn.

**Shoving and Throwing Furniture.** Use Throwing rules (p. B90); anything that weighs 5xST or more needs 2 hands to shove. Use Throwing Distance Table (p. B90) for how far you can shove; Extra Effort (p. B89) for ST rolls. A character that has a table shoved into him may retreat if aware and able; Acrobatics-4 gets him on top in a crouch or underneath lying down. Otherwise, roll vs. DX to avoid falling, HT to avoid stunning. Critical failure on either does 1 point of damage. Flipping a table over takes both hands and ST-2 roll; 1d crushing damage if it hits.

**Sliding Down Banister.** Can travel at Move 5 down banister, or less if braking. Each turn character must make DX-6 or Acrobatics-6 roll. Failure means character stops sliding. Miss by up to 4 means character ends his move on the steps, on his feet. Missing by more than 4 results in falling down the stairs. Use falling damage (p. B131); Acrobatics skill does not reduce damage. Critical failure means the PC falls off the wrong side of the banister!

Characters may attack 1 opponent in passing; this is a Wild Swing. Anyone using the Wait maneuver may attack as character goes by. +1 to impaling damage if moving 4-5 hexes/turn. If the character doesn't remove the finial on the banister, hitting it does 2d damage to the groin.

**Sliding Someone Down the Bar.** As for throwing a character, but no damage unless character falls or hits a solid object. Throwing or DX-3 failure means character falls off bar unless DX-2 or Acrobatics roll.

**Swinging on Chandeliers.** Chandeliers higher than 7' are best reached from table or chair. Character must make a Jumping roll if the chandelier is more than 2 hexes away. Farther distances need Jumping followed by Acrobatics to grab (-2 for each hex over 2 in jump). May swing and land a distance equal to distance jumped +2; must swing at least as far as you jumped. Distance you may kick an enemy is equal to distance jumped +1. Roll against Acrobatics skill or DX-6 to swing. Roll once to swing & land; DX or Brawling roll needed to kick a character. Character may make an IQ roll to judge the chandelier's sturdiness before attempting a swing.

**Throwing Character Through Window.** See Throwing Objects (p. B90, & above) for rolls, distance and damage. Window takes as much damage as whoever is thrown through it. If it breaks, the character continues through remainder of distance thrown -1 hex, taking 1d-3 cutting damage. If landing on broken window or on immediate hex opposite, he takes additional 1d-3 cutting damage from glass. Getting tossed into a mirror has same effects, but character stops in hex and takes cutting damage if mirror breaks.

**Throwing Stuff into Faces.** (Drinks, hats, etc.) Requires an action to ready item. DX-3 or Throwing skill to hit with modifiers for unaimed, -5 to face, etc. Assume SS 10, Acc 1, Max range 3. Will not do damage. May be dodged or blocked (with cloak or jacket). If object hits, Will roll to avoid flinching. Failure gives -2 to further defenses that turn; -2 to DX or awareness rolls next turn. Critical failure hits eyes; blinded for 1d seconds.

## Stats for Saloon Stuff

**Banister:** DR 2. 5 hit points. Pieces thereof have DR 4, 12 hit points. (Furniture breaks easily at its joints - it's more difficult to break the wood itself.)

**Bed:** 200 lbs. DR 3. 12 hit points.

**Beer Mug:** Does cutting damage instead of crushing if breaks. DR 2. 1 hit points.

**Bottle:** As above; DR 1. Empty: 1 lb. Full: 3 lbs.

**Ceiling (or floor):** DR 6. 30 hit points.

**Chair:** 15 lbs. DR 1. 3 hit points. Individual pieces have DR 2, 5 hit points.

**Chandelier:** 50 lbs. DR 2, 10 hit points. Rope DR 3, 6 hit points. GM rolls vs. 18-(Character's weight/20); rope gives way on a failed roll.

**Mirror:** DR 2. 1 Hit points.

**Piano:** 800 lbs. DR 4. 20 hit points (10 points or more of damage will ruin it for playing).

**Shot Glass:** Can be thrown like a small rock. DR 1, 2 hit points.

**Table (large):** 100 lbs. DR 2. 10 hit points. Pieces have DR 3, 8 hit points.

**Table (small):** 60 lbs. DR 2. 5 hit points. Pieces have DR 2, 8 hit points.

**Wall:** DR 6. 30 hit points.

**Window:** DR 1. 1 hit points.



# Mana-pulations

## Tools & Techniques for Balancing Magical Adventures

by Charles Wheatley

Achieving a balance of power between mages and non-mages requires a setting where both types can use their talents to be heroes. Since magic depends upon mana, a mage's power can be adjusted to fit the adventure by modifying the mana. Following are a few ways to achieve this.

### Different Mana Levels

The most obvious balancing technique is to adjust the mana level (none, low, normal, high and very high) as stated in the *Basic Set* and *GURPS Magic*. When mages get too powerful, move the action to a region of lower mana and vice versa. This technique can be fine-tuned by creating levels of mana between the standard ones, for example, medium mana with a -3 spell casting penalty. However, traveling to a new location to change the mana level gets tedious, and mage characters may feel persecuted whenever the action moves to a low-mana area ("Why spend points on spells if the GM is just going to lower the mana?"). Creative GMs will want other techniques to achieve game balance and challenge all players.

### Random Mana Levels

An alternative to fixed mana levels is to randomly vary the mana level around an average. For example, if the average mana level is normal, the GM could roll 2d to determine the exact mana level with 2 = no mana, 3-5 = low mana, 6-8 = normal mana, 9-11 = high mana and 12 = very high mana. The time between rolls can be fixed or also determined randomly - e.g., roll for a new mana level every 3d hours.

Randomness makes the mana more like the weather - you know spring is generally pleasant but it's still difficult to predict the exact temperature a week away.

A compromise technique, allowing the PCs to better predict mana levels, uses a die roll to base the next mana level on the current mana level and the normal level of mana in the area. The roll gives the direction and magnitude of the change.

For example, a roll of 1-3 on 1d moves the mana 1 level in the direction of the area's normal mana level (if the mana level is already normal for the location, there is no change). A roll of 4-5 produces no change in the ambient mana, and a 6 produces a change of 1 level away from normal level. If it's exactly at normal level, roll randomly for direction.

### Turbulent Mana

Turbulent mana is an area in flux, like the wind or sea during a storm, where the mana moves randomly and rapidly, making magic very uncertain. At the moment a spell is cast, a huge wave of mana could come smashing down on the caster causing a critical failure. The game effect is to

add 1 to the caster's die roll for each level of turbulent mana. A roll greater than 18 is a spectacular critical failure!

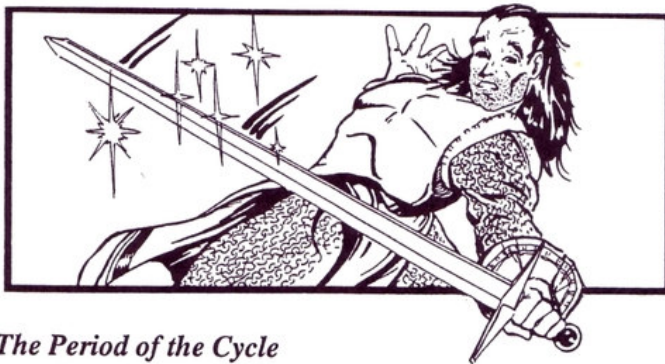
Turbulent mana may have a fixed number of levels, or the current level may be determined by a die roll each time a spell is cast. For example, a moderately turbulent area might add 1d-4 (minimum of 0) to a caster's spell roll.

Turbulent mana is an effective method of making magic riskier and less certain, especially for mages with every spell at 17 or more. By localizing the effect, the GM can discourage magic use in a particular town or building, to give non-mages a chance to shine. Perhaps non-mages built towns at these locations of turbulent mana to prevent exploitation or domination by mages.

Mages will usually notice that turbulent mana is "peculiar" when encountering it - roll versus IQ + Magery + average level of turbulence. However, the potential disaster awaiting should be hidden until spell casting begins, at which time the GM's generosity will determine the warning to the caster.

### Cyclic Mana

This technique has many variations, all based on the premise that the mana level cycles between high and low, like the seasons or the tide. Every variation creates a unique adventure setting. Awesome portents could be related to the mana changes, which may be caused by or only coincide with astronomical events. The knowledge of when these changes occur could be the object of great quests. Predictions based on lost knowledge might be viewed as prophecy.



#### *The Period of the Cycle*

The primary factor that describes cyclic mana is how quickly the mana level rises and falls.

*Long Cycles.* A cycle of thousands of years could foster a civilization that reaches its pinnacle during the period of high mana, only to crumble into barbarism as the "magic" dies. The PCs could explore ruins of cities with mysterious powers built during the "high magic." Will they recognize the dangers and rewards as they adventure on the brink of the magic's return?

**Medium Cycles.** A 100-year or shorter cycle may produce a society where older people remember when the magic used to be high (or low). The young may doubt the stories (is grandpa senile or did dragons really exist?). Governments may be very unstable as the mages and non-mages alternately rise to power. When the cycle time is in the range of 10 years or less, alliances between mages and non-mages would protect each group when the other is weak.

**Short Cycles.** A cycle of 24 hours could give rise to a culture where the work day is defined by the mana level rather than the sun. Mana “noon” would be peak mana and “midnight” no mana. If the mana “noon” doesn’t match the solar noon, the mages who work only during the evening could give rise to rumors among the non-mages (what do those mages really do while we’re asleep?). A cycle of less than a day is easier to track if it divides evenly into the number of hours in a day – i.e., 12, 8, 6, 4, 3, or 2 hours for a 24-hour day.

### The Mana Extremes

How much the mana fluctuates is almost as important as how often. The mana level doesn’t have to oscillate only between low mana and high mana. If the GM wants mages to always have a chance of using magic, the minimum mana level is low mana. To prevent non-mages from ever using magic, the maximum level must be high mana.

A world that rapidly fluctuates between no mana and very high mana would be an extremely unstable place. A place that only alternated between low and normal mana would be fairly stable magically, especially if the changes were very gradual. And a normal- to high-mana cycle gives non-mages a reason to learn spells.

### Cycle Shapes

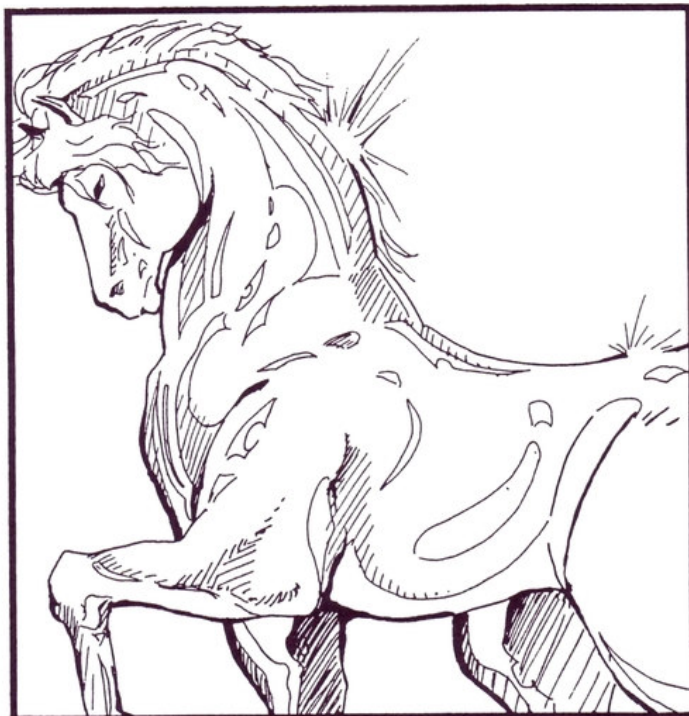
The mana cycle does not have to follow a smooth sine curve. Extended periods of low mana with short bursts of high and no mana would give rise to many legends about “the times of power” and “the times of weakness.”

### The Speed of the Transition

Does the mana level change from low to normal in an instant, or does the spell penalty adjust gradually 1 at a time? A smooth transition over a long period may not even be noticed by most people, while an instantaneous jump from no mana to high mana could mark the beginning of a new age. A rapid mana-level change could create *Turbulent Mana* (see p. 28) for an extended time before and after the change.

### Example

In this world, the mana varies like weather, with each of the four mana “seasons” lasting one calendar month for a mana cycle of four calendar months. Roll 3d on the following table to determine the exact mana level based on the current “season.” Then roll 3d again to determine how many hours pass before rolling for mana level again. For example, in mana spring, a roll of 14 means the mana level is high.



### Mana Season

Mana Level	Fall/Spring	Summer	Winter
Very High	17-18	14-18	–
High	14-16	8-13	17-18
Normal	8-13	5-7	14-16
Low	5-7	3-4	8-13
None	3-4	–	3-7

The average mana level is normal in fall and spring, high in summer, and low in winter. This allows the mages to behave normally half of the time, compete with non-mages one quarter of the time, and depend on non-mages the other quarter of the time. It certainly spices up the interrelations in an adventuring party.

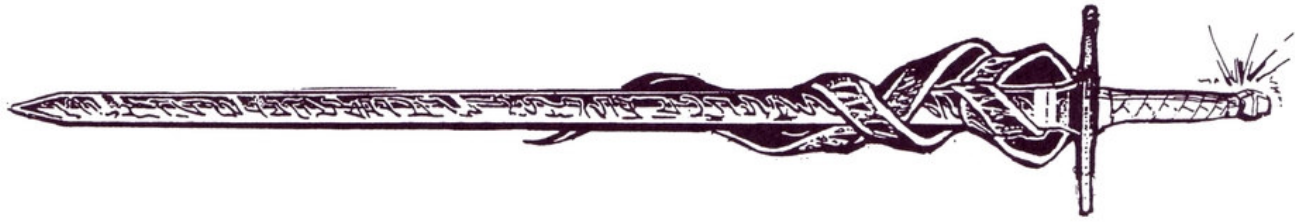
### Mana Sinks

A mana sink is a person, place or thing that attracts and absorbs magical energy. By absorbing mana, it can precisely limit when and where magic is viable. A sink can subtly limit magic use or can be the object of a whole adventure. The exact nature of a mana sink is defined by how it absorbs and dissipates magical energy.

### Absorption

**Types of Mana.** A mana sink may absorb magical energy from spell castings, Powerstones, magic items, the surrounding mana, a character’s fatigue or any combination of these as determined by the GM. Sinks can also be aspected so they only absorb or not absorb the energy from certain spell colleges. A sink created in a volcano may absorb only fire college spells – or it may absorb only water college spells and dissipate the energy as fire college spells.

**Range.** The range determines how much area is affected by the sink. A very large range effectively makes a



whole area low or no mana. A very small range provides a movable, localized non-magical area. Both extremes make it easy for the GM to track whom the sink affects. To keep the players guessing why spells are failing, the GM should use a sink with a range of 5 to 50 hexes. The drawback is that the GM must constantly monitor the hex map to determine who is within range.

**Power.** The power of a sink determines when the sink absorbs the energy. A truly potent sink would absorb all magical energy within its range, even mages' fatigue! To precisely define a sink's power, the GM assigns it a skill level that is used in a contest of skills versus the caster to determine who gets to use the mana in the spell.

Or a sink's power might depend on its distance from the caster and/or the caster's roll. An example is a sink that will not absorb the power from a spell casting unless the caster makes his spell roll by less than 10 minus the number of hexes from the sink. A caster standing 4 hexes from the sink would need to make his spell roll by 6 (10 minus 4) or more to prevent the sink from absorbing his spell energy.

**Capacity.** A sink, like a Powerstone, usually has a maximum amount of energy it can absorb. When this capacity is reached, it could simply stop absorbing energy, it could redirect the excess energy . . . or it might explode, summon a demon or teleport everyone 100 miles away! A hum or glow as it nears capacity is a good dramatic effect.

**Maintained Spells.** A mana sink will not undo the effects of a permanent spell although it may affect maintained spells. If sinks affect maintained spells, the amount each spell casting roll was made by should be noted. Then if the mana sink is in range when the spell is renewed, it will affect the renewal as if the original spell casting were made under the current conditions. This is quite complex and the GM will need to keep good records if he uses this system.

**Tradeoff Skill versus Power.** A mana sink absorbs the full power needed to cast a spell *before* any reductions for high skill or other factors. The additional power above the mage's fatigue and Powerstones comes from the mana channeled by the mage.

### **Dissipation**

How a sink uses the mana can be as fascinating as how it absorbs it. A sink may simply dissipate mana at the same rate a Powerstone charges, or it may use the mana to power a spell as per a self-powered magic item. The spell might be cast automatically by the sink or may require someone to cast it. A sink would be an excellent protective charm if after

absorbing magical attacks it releases the energy as a counter-attack.

The mana sink could discharge its mana like a Powerstone, although this can be abused by providing mages with a Powerstone that can be recharged by casting any spell. Fast-charging Powerstones can be very unbalancing unless they have some drawback, such as exploding for 4d damage on any spell casting roll over 15.

### **Sinks in Various Mana Levels**

The surrounding mana level may cause sinks to charge or discharge. A sink from a high-mana area might "leak" or discharge energy in lower mana while absorbing energy in a very-high-mana environment. The range and power of the sink may also be affected by the prevailing mana level. Perhaps the sink ceases to function at lower mana levels and actually increases range and power at higher mana levels. Or the mana level could have absolutely no effect on the mana sink.

As an example, consider a sink that behaves like a Powerstone and absorbs mana at 1 point per hour to its capacity only in high or very high mana region. If these are the only Powerstones available, mages will conserve them when traveling in normal or lower mana areas. A trade network might recycle "used" Powerstones to be "refilled" in high mana areas. The GM could use this network to precisely dole out the power available to mages.

### **Detecting and Analyzing Mana Sinks**

A mage's ability to detect a mana sink depends on when the mage encounters the sink and how long the GM wants to keep the PCs guessing. Casting an Analyze Magic spell can be difficult if the sink absorbs the spell's energy.

**Outside its effective range.** The GM may provide a mage information on a mana sink if a very good perception roll is made when first seen. The GM should not call it a mana sink but should describe it, perhaps, as "a depression in the mana."

**Within its effective range.** A perceptive mage may feel a "tug" in the direction of an especially powerful mana sink.

**Using magic in range of a sink.** When a spell is cast, the mage will detect the sink if it successfully absorbs the magical energy. If the mage wasn't expecting the sink, the GM simply tell the mage the energy was expended but the spell didn't seem to work. Once the mage is concentrating on what happened to the energy, the GM can add that it went toward the sink instead of into the spell.

If the sink didn't absorb the magical energy, the mage may still feel a tug on the casting in the direction of the sink. The closer the sink comes to absorbing the energy, the more noticeable it will be. One option is to roll versus IQ minus the absolute value of the amount the casting roll succeeded or failed. For example, a mage with an IQ 12 needs to roll a 13 for the spell to succeed against the sink – she rolls an 11. The GM may secretly roll against IQ minus  $(12-2) = 10$  for her to notice what happened to the magical energy.

### **Mana Sinks Versus Powerstones**

A Powerstone is a special-case mana sink that slowly absorbs energy only from the surrounding mana and discharges it to any source for any purpose. A mana sink can be made that absorbs energy from Powerstones.

### **Example – A Person as a Mana Sink**

A great way to moderate PC mages is to introduce an NPC who is a mana sink. In my Yrth campaign, I introduced a Nomad woman with bright red hair who thought she was the daughter of the fire god. The PCs, averaging about 130 points, thought she was nuts, but they allowed her to join them because they needed another good fighter. However, unknown even to her, she was a mana sink.

Any spell-casting roll must succeed by (15 minus the number of hexes from her to the caster) for the spell to work, otherwise she absorbs the energy in the casting and prevents the spell from working. For example, a PC mage 8 hexes from her must make his spell roll by at least 15 minus 8, or 7! The energy powers her ability to automatically heal herself when injured as per the Major Healing spell and to increase her ST as per the Strength spell when under stress. She starts to glow as per the Light spell when charged to 40 points, with each additional point becoming more painful and causing a brighter glow until at 50 points a 10d explosive fireball (yes, 10d!) erupts with her at the center.

She “leaks” 1 energy point per hour in no mana, 1 point per day in low mana and no points in normal mana. She charges 1 point per day in high mana and 1 point per hour in very high mana. Powerstones of less than 50 points will not charge within 6 feet of her.

Because she was a party member, it was normal for her to move among the PCs when they were casting spells. The PC mages were completely perplexed when their spells – seemingly at random – didn't take effect but still cost them energy. This mystery kept the whole party entertained and made the fighters in the group happier and more valuable because their cold steel always worked. Soon they began to wonder if the “daughter of the fire god” story might have some truth in it after all.

After discovering and analyzing the source of the problem, they weren't sure she should stay with them because she interfered with their mages. She proved her worth, however, when the party ran up against a 250-point mage. At first they kept her back so their mages could attack. After almost losing a few comrades, they realized she could nullify the opposing mage! They maneuvered her within range of the mage, then attacked before he could discover what had happened to his magic. The mage was vanquished and they all lived happily (mostly) ever after. The fire woman

has since left them for other adventures. But not before teaching them that ingenuity can turn an apparent handicap into quite an advantage.

### **Mana-Eating Creatures**

Another way to tone down PC mages is the presence of creatures known as “mage-eating mists.”

The “mists” are 2- to 4-hex-radius, slightly luminous, viscous clouds that “feed” on ambient magical energy. Spell casting, Powerstones, high mana and other concentrated mana sources attract them; a mana burst allows them to reproduce by splitting into two creatures. Six to eight years after splitting, the mature creatures begin to search for concentrated mana sources. If unable to find a high-mana source in 8 to 12 years, they slowly dissolve into various gases. They will not voluntarily enter a low- or no-mana area because their movement is only 1 in low mana and they hibernate in no mana. Treat them as clouds of water vapor to determine means to damage them – i.e., fire and high wind cause damage but a sword will not. They react to injury by fleeing.

Each creature has 2 HP per hex size, IQ 4, HT 14, a movement of 15 and can detect mana sources at great distances, especially large ones. The “mage-eating” reputation came from their habit of accidentally suffocating mages (the cloud is an asphyxiant) when they engulf them to feed on their Powerstones. They absorb 1 point of energy per 10 seconds until all of the mana is consumed or they have eaten 2 points per hex size. Because the release of mana in spell casting is instantaneous, they cannot feed on it, but are still attracted by it.

Mages can be limited by using these creatures to force them to rely only on their own fatigue. Or, since they like mana, a GM can use them to make magically powerful places risky to mages. Perhaps a very intelligent specimen can be trained to be a guardian or watchdog. Most importantly, when the “mist” is around, the mages are always paranoid.

### **Mana Nuggets**

So far this article has described ways to limit mages. However, sometimes the party gets in over their heads, uses up all of their Powerstones, and need some surreptitious help from the GM. Mana nuggets are a way to provide it.

Mana ebbs and flows sometimes condense to form nuggets. These are essentially one-shot Powerstones that can *recharge normal Powerstones*. A mana nugget can be used as a normal Powerstone that doesn't recharge and crumbles when all of the power has been drained. However, when a nugget touches a normal Powerstone, it will drain its charge into the Powerstone up to its capacity. Mana nuggets make large Powerstones more useful by eliminating the long times required for recharging. This in turn makes high-cost spells more common.

Naturally occurring nuggets can be an effective *deus ex machina* for an overly-taxed party of PCs, mere curiosities, or the object of an adventure. The secret to easily creating them would be valuable indeed. Warning: freely distributing these will quickly increase mages' power and unbalance the magic system.





# Like the Back of My Hand

## Further Definition for the Area Knowledge Skill

by S. John Ross

*Player:* "Do I know of any dealers of antique weapons in town?"

*GM:* "Do you have Area Knowledge for the city?"

*Player:* "No, but I have it for the county, at 16!"

*GM:* "Hmm. Yes, but you learned that in your native 1931, and this is 1986."

*Player:* "Do I even have a chance?"

The answer can be tricky. As GM, you want to be fair in allowing players to use the skills that they assign their characters. But too much kindness can upset realism and destroy the credibility of the scenario or GM.

When a character makes an Area Knowledge roll about an area not exactly covered by his skill, it's up to the GM whether there is any chance that the roll will succeed. If the GM feels it's ridiculous, he need not allow any roll at all. But if the GM thinks there's a *chance* that Area Knowledge might spill over to cover the new area, he may allow a roll, with three types of penalty. These are Distance, Time and Area Class.

### Distance

Distance is already covered in the *Basic Set*. For an area far from the character's "stomping grounds," use the long-distance modifiers on p. B151.

### Time

Time will usually come into play only in a *Time Travel* campaign, or if someone has been away from home for a long time.



Use the long-distance modifiers once again, substituting years for miles. For each difference of tech level, double the time modifier (2 TLs difference would be  $\times 4$ , etc.). This is because societies change drastically on all levels when technology increases. A town in the biblical era could go for a hundred years and change very little in layout or culture. But look at how much your own town has changed in the last 50 years alone!

### Area Class

Area Class can become important in a campaign that involves a lot of world travel (or solar system travel, galaxy travel, and so on).

*Area Class* is a new phrase to describe something already in the book. These are the italic headings describing the size of the area covered (city, kingdom, planet, et al). We assume that one area is contained within the other; e.g. someone with knowledge of Kansas is asking about the United States, or vice versa.

When a character is familiar with a *larger* area and wants information about a *smaller* area within it, the penalty is -2 for one class of difference, -4 for two, -8 for three, and so on, doubling each time.

When a character is familiar with a *smaller* area and wants information about the *larger* area containing it, the most appropriate solution will usually be to use the long-distance penalties described above. However, questions having to do with the *entire* large area use a flat -2 per difference in levels. Thus, a character with Area Knowledge (Planet Earth) would be at a -8 – three classes of difference – to know the mayor of Los Angeles. However, someone with Area Knowledge (Los Angeles) would be at -4 to know the location of Mount Rushmore. The same person would be at -10 to know the location of the Library of Congress in Washington, D.C.; the Library of Congress has more to do with Washington than with the United States as a whole, and it's more appropriate to resolve the question by considering distance.

Returning to the example in the first paragraph: yes, there's a chance to find that antique weapon shop, but the penalty is -12. The long-distance modifiers are insignificant. The modifier for years is -5, doubled for crossing tech levels (6 to 7). Added to this is the -2 modifier for class difference, for a total of -12. The average expert on the area might not have a chance, but the PC in question is *very* skilled, and can succeed on a critical success. "You remember a gunsmith who collected antiques. He had five sons, and one of them might have taken over his business. Do you want to give it a try?"



# Coming Attractions

The standard warning note: The dates listed below are our current *best estimate* of when products will be released. They are "official," in that we will do our best to make them happen.

Occasionally, we hit an unforeseen snag in writing, editing or producing a book, and we have to delay release. And from time to time, a book comes together so smoothly that we can actually release it *ahead* of schedule. But here's the current plan . . .

## November

**GURPS Time Travel Adventures.** These three adventures through time and dimension take you from the shores of the ancient Nile to an alternate universe where magic and technology coexist.

*A Nile Elation*, by Jeff Koke, involves a Stopwatch plot to nuke the Great Pyramid. *Titanic!*, by Steve Hatherly, places the time agents aboard the doomed steamliner; and *Soulburner*, by David Pulver, sends the PCs into an alternate dimension where vampires and demons are as common as computers. 128 pages; \$16.95.

## December

**GURPS Fantasy II: The Mad Lands.** A bleak and dangerous world awaits as Robin D. Laws takes *GURPS* players into the dark Mad Lands, where a complex culture clashes with monsters beyond imagination. *Fantasy II* has everything the GM needs to run a campaign – history and culture, adventure ideas and background, character creation information, plus NPCs, maps and monsters galore. 128 pages; \$16.95.

**Hot Lead**, Steve Jackson's new game system, is *not* a *GURPS* release – but it *will* include "hooks" to the *GURPS*

mass combat system, for those who want to combine their games.

This is a "skirmish-level" miniatures system – that is, it is played with miniature figures, and each figure represents a single soldier. Like *GURPS*, it is universal in scope; the *Hot Lead* rules can be used with any period, from Roman legions to fantasy or science fiction. This whole line will feature full-color photographs and art throughout each book.

The basic *Hot Lead* book gives detailed but easy rules for designing soldiers, creating an army, and taking it into combat on the miniature battlefield. It's extensively illustrated with both examples and photographs. 128 full-color pages; \$19.95.

And lots of worldbooks *will* follow, starting with Loyd Blankenship's *Space Knights* in 1993!

## January

**GURPS Arabian Nights.** This worldbook gives you everything you need to run a campaign in the land of the Djinn – whether you choose a strict historical approach or a more fantastic, cinematic interpretation. A complete history – from ancient times to the present – allows campaigns to be set in *any* time, and all areas are thoroughly mapped. Written by Phillip J. Masters. 128 pages; \$16.95.

**GURPS Supporting Cast.** Written by the author of *GURPS Illuminati*, Nigel Findley, this book provides more than 100 fully-developed NPCs, ready to drop into any campaign. *Supporting Cast* doesn't just concentrate on one genre; it provides a variety of characters, from fantasy bouncers to contemporary drug dealers to far-future space pirates. Each character has adventure seeds and ideas for conversion into other genres. 128 pages; \$16.95

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