GAME AID FOR

JOVIAN
CHRONICLES
GAMEMASTERING MADE EASY

DP9-305

FROM DREAM POD 9

The use of the male gender
throughout this manual should not
imply exclusion of the female gender.
It is meant only in order to avoid
pronouns like "him/her/it," making
the text lighter and easier to read.

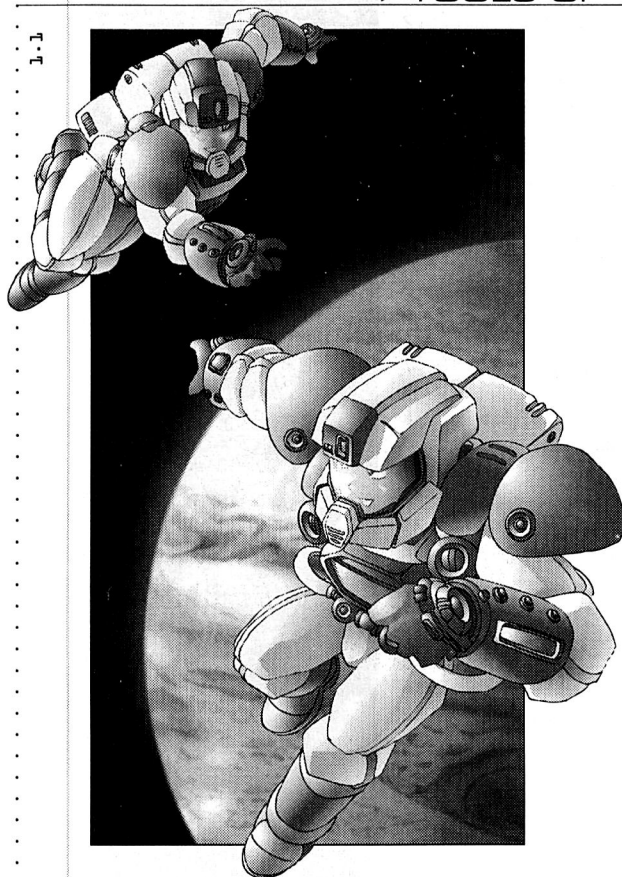Dream Pod 9 can be reached
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support and information about the
Jovian Chronicles.

▶ TOOLS OF THE TRADE

This book is a little bit different from our other Jovian Chronicles supplements. It is not meant to be read from cover to cover (although you may want to do that anyway), but rather to be consulted as the need arises. More than a "how-to" guide to Gamemastering, it nonetheless goes over many of the basics involved in setting up and directing an adventure or a campaign. It also includes a series of tools and forms which we hope will be of use to Gamemasters in organizing and running their campaigns. With minimal bookkeeping and preparation, this booklet can help even the most inexperienced or unorganized Gamemaster run an exciting and consistent campaign. You'll also notice that this booklet is by far friendlier than most of our supplements, which tend to follow a more encyclopedic style. We figured a no-nonsense attitude would be more appropriate for this guide.

While this booklet gives numerous hints on how to be a good Gamemaster and how to properly prepare a campaign, it can't do the work for you. You have to sit down, plan out scenarios, write up stats, and do all those other things that make a good campaign. The one thing this booklet can't help you with is to come to a game unprepared and hope to survive it unscathed. As a general rule, you have to spend one to two hours of preparation time for every hour of game time. Fortunately, using archetypes such as the ones provided in this book and the other Jovian Chronicles supplements can help you drastically reduce that amount. You still have to come up with plot ideas and milestone events to help advance the story during the game sessions, but if all your Non-Player Characters, vehicles and settings are already designed, that can amount to only an hour or two of preparatory work.

As your campaign progresses, you may even find that you have designed enough material to last more than one session and thus take it easy for a few weeks. Your ability to improvise will also improve, but try not to rely on that too much. You may forget vital elements in the long run (unless you record everything carefully) and may end up with an inconsistent campaign.

▼ THE PEOPLE

The first chapter of this booklet focuses on the various individuals involved in the game. This first section explains the role of the Gamemaster, his expectations and responsibilities, and prepares novice GMs for the task that lies ahead. We also included a section on Players to help Gamemasters find some and keep them interested in the campaign. While the material within may be of some use to a Player, it is really meant for use by Gamemasters, who often don't understand the needs and expectations of their Players, and fail to salvage their campaigns when they realize no one is having fun anymore.

Characters, whether controlled by the Players or Gamemaster, represent the driving force behind any form of storytelling. This is particularly true in roleplaying, where Players become active participant by assuming the role of one of the characters. As a result, it is important to have interesting and believable heroes and villains. We provides a few suggestions to help create interesting personalities for the game and also expands on how many experience points to award at the end of an adventure session. This section further covers Non-Player Characters, their personalities, their motivations, their personal belongings, etc. It can give a solid boost to a Gamemaster who needs to create an NPC on the fly.

▼ THE GAME

Even experienced Gamemasters sometimes have a hard time running an entertaining game session. There are evenings when Players just can't seem to get moving in the right direction, or there are combat scenes that are just bland and uninspired. There are also those "off" nights when the Gamemaster simply should have stayed home and taken the evening off. For just those days (or nights), this chapter offers a variety of creative tools to help boost the GM's imagination and turn him into a raving, enthusiastic maniac once more. From plot movers to a fast combat system to valuable tactics, the Gamemaster can find almost everything he needs to spontaneously turn his few ideas into a dynamic scenario.

▼ GAME TOOLS

The last section of the book is composed of game tools, a series of worksheets designed to help focus your creative energies and allow you to keep track of the game's progress. This section also contains quick reference sheets that list all the formulas required to calculate the point value of either character or vehicle, sparing you the annoyance of flipping through pages after pages.

THE GAMEMASTER ◄

The Gamemaster (or GM for short) is analogous to the director of a movie, except that he is a director who does not know what lines the actors will come up with next. Taking on the mantle of the GM means preparing a lot of material for every game sessions and requires some level of dedication. In addition to designing the setting of an adventure, the Gamemaster is responsible for stocking the sets with an interesting cast of villains, allies and extras. These additional characters are called Non-Player Characters, or NPCs. During a game, one of the Gamemaster's primary tasks is to slip into the role of any NPCs who interact with the Players. The Gamemaster's other most important task is to guide the game's progress and arbitrate any conflicts, either between Player Characters (PCs) and NPCs, or between the PCs themselves.

Few gamers readily jump at the task of Gamemastering, despite all the rewards of the job. If you happen to be a Player reading this, you should consider giving it a try. For one thing, being on the "other" side of the fence will give you a new perspective on the role of Gamemastering and will make you a better (or at least a more understanding) Player. The reverse is also true — Gamemasters should go back to the role of Player once in a while, just so they don't forget what it feels like. One of the biggest cause of GM-Player conflict is the lack of understanding of their respective responsibilities and expectations. It is not uncommon for Players to be irritated at their Gamemasters' vindictiveness, nor is it rare for Gamemasters to be frustrated by their Players' disregard for the scenario they have lovingly created. Switching seats may help remind one and all that this is a game, and everyone is there to have fun.

THE JOB OF GAMEMASTERING ▼

The job of Gamemaster often requires a great deal of preparatory work, on average more than what most Players put in before a gaming session. The GM has to come up with a scenario, write up NPCs (at the very least those which may be used in combat situations), prepare some opposition for the PCs and link important events together in a coherent and consistent sequence. The Players, however, have little more to do than bring their character sheet, sit down and play (in all fairness, however, some Players spend a great deal of time writing up their character). Be that as it may, there are great rewards to being a Gamemaster. Nothing compares to the feeling of seeing a story unfold according to plan, except perhaps the feeling of a story taking a sudden twist for the better because a Player did something unexpected.

Later on in this book, we focus on several hints and tips which you may want to apply as you gain experience. Use them for what they are: suggestions, not expectations. It is a poor Gamemaster who tries to do everything at once. Learn the basics first, get comfortable with them, then move on to the more advanced Gamemastering techniques. Only use what works for you, at a reasonable pace. If you have never been a Gamemaster before, you may find the task daunting, perhaps even impossible. You may even think you're not suited for the job and shy away from it. It's also possible that you've tried it before and weren't very successful. Don't let that stop you. As with many other activities, practice makes perfect. No one expects you to know all the tricks of the trade right away (or they're being very unfair if they do), so give yourself a break and jump in. Do it wholeheartedly and with enthusiasm. Have fun being a GM and be playful.

REFEREE, OPPONENT OR GOD? ▼

The Gamemaster's job is really a little bit of these three elements. The Gamemaster settles disputes and handles all rules-related matters. The GM is encouraged to be reasonable and to listen to his Players, but he's the one making the final call. He's also the opponent. He breathes life into the antagonists and controls them during combat situations. The Gamemaster's job is not to pound on the Player Characters until they die, but to provide reasonable and challenging opposition for them.

The job of GM is often tainted with perfume of godhood. Creating worlds and manipulating so many people and events can sometimes give that impression. If you're a Gamemaster, however, get that thought out of your head at all costs. You're no god. You're no puppet master either. Let your Non-Player Characters take a life of their own. Don't cheat them by making them do what you think is right. With time, you will find that your NPCs become more detailed and more intricate, and they will eventually surprise you by coming alive in your head. They will literally tell you what they want to do and all you become is a mouthpiece for that little corner of your mind that has become the Non-Player Character.

Remember that the game doesn't serve you, you serve the game. If you become a Grim Megalomaniac (another explanation for the acronym GM), you'll soon lose all your Players. Give the delusions of grandeur a rest — just have fun and make sure everybody else does.

▼ GAME BALANCE

Unlike most other games, roleplaying games are not competitions between the Players. There is no real winner or loser, only the success or failure of missions. Roleplayers are expected to work together towards a common cause, and while the Gamemaster is responsible for supplying the obstacles and challenges, he is not the Players' enemy. His job is to provide the PCs with just enough opposition for them to feel they have earned their victory, but not so much to make it a no-win scenario. It is a delicate line to walk, one which is easily mastered by Gamemasters who pay attention to their Players.

In order to successfully resolve a situation, Player Characters have access to three general resources: their own abilities (internal resources), their friends and contacts (external resources), and their personal equipment and money (material resources). GMs should evaluate whether each of the resources is lacking, adequate or overabundant, and determine which one of the resources needs to be adjusted to give the Players a fighting chance. Without turning this principle into a mathematical formula, the Gamemaster should make sure the PCs have (on average) roughly adequate resources to tackle their opposition. If they are lacking in one particular resource, they should (perhaps only temporarily) have an overabundance of another one.

Another option is to do the reverse for the opposition. The latter also has the three resources mentioned above, and Gamemasters may opt to modify antagonists' resources rather than those of the PCs. If, for instance, there is no logical way for the GM to enhance the resources of the PCs without resorting to contrived plot devices, he can instead increase or reduce those of the NPCs. For example, an enemy who is highly skilled (internal resources) and is rich beyond dreams (material resources) may find himself without all the personnel he normally has under his command (external resources) and must do his dirty work himself. That gives the PCs a fighting chance. You should also remember that lack of preparation is no excuse and it should not lead you to create overly powerful opposition for your characters. Many Gamemasters come to a game unprepared, quickly whip up some nasties for the Player Characters to fight, then act all surprised when the Players are grumpy and unsatisfied. You should prepare villains ahead of time and make sure they give the Players a difficult — but not impossible — time.

◇ PACING THE GAME

One last bit of advice about the opposition: pacing is everything. Too much opposition too soon in a scenario can be as destructive as too little too late. Make sure you have some opposition ready during every segment of the game and of the campaign (beginning, middle and end). Usually, that opposition tends to become greater as the scenarios progress. Generally, it's a good thing to have at least two fights during the game, one after the first third of the scenario, and one near the end. The first battle should foreshadow the last one and hint at how much opposition the characters will face in the end. As a Gamemaster, you want to make sure the Players aren't taken by surprise, so follow these rough rules until you know your Players well enough to pull a few twists on them — just don't get carried away. Remember, you're the director of the show, and your only audience is your Players. If they don't enjoy the challenge, you've failed to entertain them.

◇ IMPARTIALITY

While some rivalry between Player Characters is acceptable (and in some cases even desirable), personal conflict between Players is not. It is important to resolve what may appear to be a problem between Players before it evolves into something nasty and ruins the game for everyone. Often, rivalry between Players is due to the fact that one of the parties is not getting enough attention or the other one is getting too much. Regardless of your personal preferences as a Gamemaster, try to put everyone under the spotlight once in a while and give equal time to each Player. Definitely stay out of personal disputes between Players, but remind them that gaming is supposed to be fun and encourage them to work out their differences outside of game time. The worst thing you can do is to take sides. As a last resort, if worse comes to worst and the Players aren't making any effort to solve their problems, your only reasonable option is to kick the Players involved out of the game and hope they weren't essential to the campaign.

▼ RECORDKEEPING

You may want to use the Campaign Tracking Form on page 34 to keep track of various events in your campaign. Fill out the form after each game, using as many copies as you need to cover all significant events which occurred during the session. This will prove invaluable later on when you want to pick up on loose threads or simply when you need to tell absent Players what happened during a previous game or scenario.

In the *Event Synopsis* section, simply give an outline of the event and how it links with the previous and next events. Use the *Allies and Opponents* section to indicate what helped or hindered the PCs during the scenario, and in which way. The *Loose Threads* section allows you to jot down plot elements which are incomplete and which you may want to resolve at a later date. Record under *Background World Events* those events of note which do not affect the PCs' lives directly but represent notable milestones in the game world which the Players may refer to later on. *Character Subplots* occur on a more personal scale and should be noted with meticulous care; Player enjoyment is often proportional to the number and quality of the subplots he is involved in. Lastly, the *Unbeknownst to the Players* section allows you to keep track of events which occur behind the scenes without the PCs' knowledge.

THE PLAYERS ◀

A roleplaying game consists of a group of people creating an interactive story. It combines elements from theater, movies and improvisational acting. Like an actor, each Player takes the role of a specific character, with his particular background, personality quirks and professional abilities. These characters, called Player Characters (or PCs), band together to form a playing group called a party. Player Characters in a party usually work together because their motivations compel them to do so (see page 9). They may not always like each other (as we mentioned before, it is all right for Player Characters to be rivals, just as long as it's clearly understood that it's not between the Players), but in the end they agree to work together towards some form of common goal.

So what makes roleplaying games any different from improvisational acting? For starters, roleplaying games are just that: games. Acting is done with the purpose of entertaining others. Games are played for the purpose of entertaining oneself. Players should always remember that the goal of the game is to have fun. While they should act out their characters' parts as faithfully as possible, no Player should be forced to perform in any way that makes him uncomfortable or prevents him from having a good time. Most roleplayers prefer to sit around a table and use their facial expressions, tone of voice and hand gestures to convey their characters' actions and emotions. Enthusiastic or dramatic Players often enjoy standing up and fully acting out their parts, using full body language and voice tremors to add depth and drama to their scenes. Shy Players may prefer to describe what their character does without making a spectacle of themselves. While some elitist gamers may judge the more theatrical Players to be better roleplayers, all that really matters is that everyone involved in the game enjoys himself. Gamemasters should remember at all times that not everyone gets entertained the same way. It is important for GMs to treat all Players fairly and give them some "air time" (i.e. interact with them) even if they prefer interacting with the more extroverted Players.

A quick note about method acting: no combat should ever be acted out! Serious injury could result. The big idea with roleplaying games is to safely do things we can't do in real life. If you're going to act out combat, you might as well take a walk on the wild side at 3:00 in the morning and pound on a few thugs. A roleplaying game is a simulation. As the famous doctor said: "Don't bury yourself in the part." Stick to game mechanics and verbal descriptions.

FINDING PLAYERS ▼

Finding Players is not always an easy task. If your close circle of friends isn't enough, place ads in the local game shop, comic book store or the school activity board. Your ads should be simple and to the point, stating the number and types of Players you are looking for (see below), how often you want to play and — of course — that you're looking for Jovian Chronicles Players. One last option — one which probably works better — is to join the local gaming club and find gamers with your interests. Many clubs have a newsletter where you can advertise yourself as a GM looking for Players. Make use of it.

Once you have your Players, be upfront about the specifics of the campaign you want to run. Make sure everyone understands what the basic premises of the game are going to be and that they are comfortable with it. Work out a schedule which is good for everyone and make sure to confirm with your Players a day or two before the game to make sure no one forgets or has a sudden change of plans.

WHAT ARE PLAYERS LOOKING FOR? ▼

Not all Players enjoy the same kind of games, and GMs are well advised to take that into account before forming a group of Players for a campaign. Regardless of their individual play styles, Players should have similar expectations of the game. This will allow the Gamemaster to create a campaign which will last beyond the first three or four games (a critical time for a campaign). Although roleplaying stories could be divided in innumerable genres, we recommend a simplistic view to facilitate the "negotiation" process between Players and Gamemasters. By limiting the number of styles to choose from, you may reduce the time spent arguing over what kind of game everyone wants to play.

▷ 1.3.2 WHAT ARE PLAYERS LOOKING FOR?

The styles vary between Action and Intrigue. Action focuses on chases, exchange of gunfire and mechanized combat. A series of extremely fast and furious encounters move the story forward, interspersed by some plot-revealing events. Intrigue relies on brains more than brawn and revolves around unveiling hidden information. Victory is achieved not by defeating the master villain in combat but by outmaneuvering him in intrigue. The very concept of "villain" is less clear in Intrigue campaigns, where no one's loyalties can be taken for granted. Of course, nothing stops GMs from mixing elements of Action and Intrigue. Most good roleplaying campaigns will do so, just as most good thrillers or adventure films do. These categories are not set in stone, but rather serve as helpful guidelines for Gamemasters and Players.

◇ REALITY LEVELS

Suspension of disbelief — a process by which a viewer or reader voluntarily agrees to be fooled by premises which he knows may not be entirely realistic — is as important a concept in roleplaying as it is in literature or movies. Gamemasters and Players must agree on what level of reality they prefer before the game starts. In Jovian Chronicles, we use three Reality Distorsion Levels to describe the various genres available. These are fully explained in Chapter 10 of the JC rulebook, so we won't re-explain them here. Just make sure all the Players agree on the actual level used, since it will influence their way of playing the game.

▼ NOVICE PLAYERS

Getting new Players into a game, any game, is often the first challenge a GM will face. Players who are not familiar with roleplaying games or who have never played Jovian Chronicles may hesitate before joining your campaign. In the case of completely inexperienced Players, they need to know that they're not going to be rejected by the more experienced Players when they join. Too often, long-time gamers turn off new potential Players who express curiosity about the game: they speak in "game talk," an obscure lingo which novices cannot understand, trade "war stories" from their previous adventures which are meaningless to the newcomer, and in general display little tolerance for and offer no help to beginners. This has an adverse effect on the hobby and the Gamemaster, as host of the game, should encourage everyone to be helpful and show some understanding towards new members of the playing group.

◇ GUEST APPEARANCE

If a novice Player has expressed an interest in your campaign but isn't familiar with the world, the setting and the premises of your games, don't let him start a character right away. Rather, ask him (or her) to come to a game as a member of the audience and watch how it's done. If possible, you may want to give one or two NPCs to the guest if he feels he can handle it. They don't have to be important people — even the role of the young bridge officer that is seen only to deliver two lines can teach them something about roleplaying. This way, he may become familiar with the game without irritating the more experienced Players.

◇ QUICK EXPLANATION

Before anything else, make a quick summary of the world and the campaign premises for the novice Player. Next, go through the basic game mechanics and explain him briefly how combat works. Don't spend hours getting into the intricate details and how to do every little thing — these are easy to pick up on the run. If you overwhelm your new Player with too many rules, he'll feel overwhelmed, perhaps start to hate the system and give up for good. The explanation should not last more than five minutes; usually, explaining the basic Attribute and Skill test procedures is more than enough. Emphasize the simplicity of Silhouette and show him as many illustrations as you can.

◇ SAMPLE COMBAT

Most Players like to be rather proficient at combat to avoid losing their PC early during the game. Spend some time with novice Players to teach them the rudiments of the Silhouette combat system. Run them through a quick combat situation using a competent martial artist (all Skills at 3/+1, UD of 7, STA of 35) versus an incompetent thug (all Skills at 2/0, UD of 4, STA of 25). Make sure they understand how lethal combat can be. Give as many combat tips as you can (you may want to share the content of pages 24 through 27). If you don't, they may blame you later for causing the death of their PCs.

◇ PRE-GENERATED CHARACTER

If the novice Player doesn't know yet what he wants to play, just make your best guess and assign him a pre-generated character on what you think his preferences are. The **Jovian Chronicles Rulebook** contains several pre-generated character templates (pages 101 to 107) which can speed up the character creation process. You can also use the various detailed careers introduced in the **Jovian Chronicles Companion**, pages 34 through 45. The **Companion** also contains information on the culture and mentality of the various nations of the solar system, which can be useful to create a background and personality to the new character.

PROBLEM PLAYERS ▼

Gamemasters often get discouraged from running a campaign because they unsuccessfully dealt with problem Players in the past. The latter tend to have particular quirks and tendencies which, left unchecked, can ruin the game for everybody else. Gamemasters should be aware of the various types of problem Players and how to deal with them. This section only covers the most frequent and troublesome types. If a problematic individual is truly, irredeemably disruptive, just kick him out of the game and save everybody the aggravation. Make sure, however, that you've tried every trick in the book before doing so. Giving troublesome Players the final boot won't impress the other Players.

THE RULES LAWYER ◇

This guy knows the rules inside and out. He can recite (correctly) any segment of the text from its paragraph number. He then uses this knowledge to find loopholes and give himself an unfair advantage over other Players. Make sure you set the record straight from the beginning: you're the GM. Listen fairly to all arguments, then make your decision. Be fair and objective in your judgment, and remind the Rules Lawyer that you don't always use all the rules in order to keep the game moving. That's often more important than searching five minutes for an obscure modifier.

THE KILLER ◇

Whatever the problem, the Killer use extreme measures to get rid of it. Anything that gets in his way is met with deadly force, regardless of the consequences. Make sure you warn him of the consequences of his actions before he pulls the trigger. Killing anyone indiscriminately attracts retribution. If the Killer is aware of the rules by which your world operates, he can never say you didn't warn him. If he ignores the warning, unleash angry NPCs on him.

THE MUNCHKIN ◇

This guy wants everything: high Attributes, high Skills, big guns, powerful vehicles, everything. These treasure hunters are hard to control. A word of advice: don't even try. Use reverse psychology instead: give them everything they want without opposition, and focus on the more interesting characters. They'll soon learn that the good stuff doesn't lie behind stats and wealth. Other Players won't complain if you give them interesting storylines.

THE SHOW-OFF ◇

Also known as the Spotlight Hound, this Player wants to be the center of attention. He wants to look good and to be worshipped by everyone in the game — Players, PCs and NPCs alike. He'll literally "teleport" from one scene to another (magically intervening in scenes where he's not supposed to be) and lie about his dice rolls. Stop him. He can't be at two places at the same time. Also, if he's rolled the dice while you weren't looking or if you can't see the dice, insist that he roll again. In fact, you should do this for everyone, just to avoid trouble.

THE SPECIALIST ◇

A hybrid of the Munchkin and the Show-Off, the Specialist systematically creates characters with very focused abilities (often combat, but other variants are possible). He's extremely good at one thing and one thing only. He'll often try to direct the game towards the area where his specialty is involved to the exclusion of everybody else's. He's sneaky and you may not realize it before it's too late. Make sure some situations cannot be resolved by the use of his skills alone. Better yet: make sure at character creation that he has a well-rounded character.

THE KNOW-IT-ALL ◇

This is the guy who has wide knowledge of a real-world topic and uses it in the game to its fullest extent. It is common in a hard science environment like the **Jovian Chronicles**, which appeals to many engineers and trained scientists. The Know-It-All imposes his knowledge on the Gamemaster, arguing his decisions whenever they don't make sense. You have two options: tell him that this is just a game and you need to cut corners to run the session smoothly (probably won't work) or you can pre-empt his arguments by asking him how it really works. Don't worry about the Know-it-all lying; he's more interested in showing off his knowledge than cheating. He'll tell it to you like it is, smug at being the center of attention. This way, he's happy, you've got accurate information and the flow of the game isn't interrupted.

THE ACTOR ◇

This harmless category has been known to have rather disturbing effects on campaigns. They're not doing anything wrong per se — after all, they only act their characters as an actor would — but they just go overboard with the acting part. They just suddenly go all lyrical on you, dress up as their characters (which can have seriously weird results when it's a male Player with a female PC) and flutter about, undoubtedly hoping that someone in the room is going to be impressed with their acting skills. Just ignore them and move along, lest you risk upsetting everybody else for wasting precious game time on frivolities.

INTRODUCTION

1.4

▶ THE PLAYER CHARACTERS

As we mentioned earlier, Player Characters are the heart of the story: they are the heroes whose exploits we remember fondly or with awe once the game is over. Gamemasters must remember at all times that PCs are the exclusive property of the Players and they should not be tampered with in any major way without the Players' consent. Some GMs relish in mind-controlling PCs and telling them how they feel and what to do — that's WRONG! If the GM suddenly decides to manipulate the Players' PCs, he might as well play along. His story has become a boring, perhaps even offensive, movie, one which the audience would rather not watch. Why should they? Someone has usurped their roles. Let the Players play their characters the way they want to. See where it leads them and let them deal with the consequences. No harm done: it's only a game. It can be effective to make some suggestions when describing a scene (e.g. "You feel tension building in your muscles as the smugglers enter your trap."), but do this in moderation. NPCs can also be used effectively to suggest emotions — if the Players' companions are nervous during a daring space rescue, that apprehension will transmit itself to the PCs in short order.

The Gamemaster's job is to ensure that the characters all fit together and that they will not kill each other after the first session. He may ask questions, ask a Player to expand on a particularly interesting point of background, and make sure ABOVE ALL ELSE that each character as his own "schtick," his own unique specialty that no one else has. It ensures that everyone is useful and that no one character can do everything.

▼ CHARACTER STEREOTYPES

1.4.1

Stereotypes are extremely useful for a Player because they provide a basic template which can be used "as is" for a little while until he can give it a better and more surprising twist. We include four basic types below which have been staples of roleplaying games for the last twenty years. Gamemasters are encouraged to expand upon them or add new ones as they see fit, or they can create sub-classes for each broad category. Needless to say, we ignore gender considerations in the classes below, but creating a stereotypically male personality and using a female gender (or vice versa) can yield surprisingly fun results.

◇ THE FIGHTER

Exo-armor pilot, police officer, ground soldier, mercenary, bounty hunter, bodyguard, this character relies primarily on firepower to solve problems. He is usually strong and agile, and can withstand more punishment than the average person. He needs some level of action to be useful and would most likely not be comfortable (or enjoyable to play) in a party of politicians. Potential twists: death wish, hopeless romantic, brilliant tactician, logistics expert, suave gentleman, idiot savant, post-traumatic stress disorder, unfocused, etc.

◇ THE TINKERER

Technician, scientist or computer wizard, this character gets things done through research, planning and careful study of the available data. Gifted with superior intellect but a frail physique, he handles puzzles and problems. He can be part of almost any group, but is seldom involved in action or combat scenes. Potential twists: powerful physique, total nerd, weapons specialist, sadistic streak, sniveling coward, sharp dresser, obsessive perfectionist, superstitious, grand schemer, successful lecher, etc.

◇ THE SOCIALITE

Media star, journalist, politician, public relations officer, this character has charisma, social skills and a glib tongue. The Socialite mingles with people, makes contacts and finds both resources and information whenever required. Socialites are almost diametrically opposed in nature and methods to Fighters, and do not mingle with them very well. Potential twists: hot tempered, mischievous, biting wit, bluntly honest, dangerously curious, foul-mouthed, refreshingly candid, depraved, etc.

◇ THE ROGUE

Scouts, thieves, nomads, pirates, Rogues are characters who rely on agility and wit to overcome obstacles and achieve their goals. They are often (but not always) nimble and charming, and perform less-than-honest deeds when all else has failed. Potential twists: do-gooder, self-centered, amnesiac, redeemed criminal, fallen marshal, cynic, junkie, soft-spoken, rebel informer, etc.

FITTING CHARACTERS INTO GROUPS ▼

For the character creation process, it is preferable for everyone to create their characters together around a table, with the GM going from one to another answering whatever questions the Players have. The PCs' motivations should be agreed upon by all Players and by the GM before the game starts to make sure the group has a solid party. It is the GM's responsibility to ensure that the Players fit well with each other and there are no potentially destructive conflicts. For instance, having a group of Nomads composed of ex-Jovians and Earthers disillusioned with their respective governments is fine. They all hate interplanetary politics and may chose to work together against the oppressive governments. Having a group of soldiers composed of several patriotic CEGA soldiers, one fanatic Martian and two Jovian spies posing as Nomads, all of them working to further some personal goals, is not a good idea and will kill the campaign within a few sessions.

A classic Gamemastering technique often used to bond together the members of a newly formed group consists in a trial by fire. Take your group of PCs and put them through hell for a few game sessions. Make sure they save each other's lives several times over to help establish a relationship of trust between the PCs. GMs using this technique should be careful, however, not to create dissension instead of trust. Try to make clear that the Players can trust each other, even that they must if they are to survive. Don't use NPCs to try and break them up or drop hints that one of them is a traitor. This can be an enjoyable story twist, but only once PC trust is well established. Save it for later.

MOTIVATING CHARACTERS ▼

As we mentioned above, make sure your characters have motivations which are not radically opposed to one another. Characters who have similar or compatible motivations will often be willing to work and stay together through the tough times that lie ahead. We provide below a few typical motivations often used in literature and movies. Use them and twist them around as you see fit. Remember, however, that short-term motivations alone won't carry your Players through a whole campaign. Encourage them to bond and forge stronger links between each other, as well as to develop group motivations that will drive them further. Motivations grow and change with the characters. Don't expect them to stay the same forever.

FAMILY ◇

The character's family is or was involved in a tragedy. Either seeking revenge for their deaths or because they need his immediate help, the PC teams up with people who can assist him and goes through several adventures that make him realize that there is strength in numbers.

FRIENDSHIP ◇

Some of the characters are long-time friends. Over time, they have learned to trust each other and work together to achieve some common goal (wealth, fame, professional status, etc.). They share everything easily and never hesitate to put their lives on the line for each other.

DUTY ◇

The Player Character is part of a heavily traditional background, either a soldier or some powerful organization. He is asked to work with the others out of a sense of responsibility toward the organization. The character should have a strong code of honor, however, for this to work.

REVENGE ◇

One or more of the character's loved ones (wife, parents, children, friends or even the character himself) have been hurt, and it's the PC's job to make sure whoever is responsible pays dearly for his grief. After a while, some characters almost forget why they are vengeful and simply stay that way.

SURVIVAL ◇

The characters with this motivation have a powerful common enemy (either a person or the environment). In order to survive, they team up, pool their resources and face the incoming threat. Once the threat is over, they may or may not remain together, however.

CIRCUMSTANCES ◇

Due to circumstances beyond their control, the PCs find themselves entangled in a web of events that further pushes them together. This is especially useful to put together characters who have little in common, but is a potentially short-term motivation that will need looking into later on.

▼ CHARACTER STORY

No Player Character should be created without a character story. Storytelling almost invariably involves conflict. That conflict, however, is seldom without a purpose. It serves to push the character towards the resolution of his problems, of the basic premises behind his motivations. Heroes seldom begin a story as perfect beings. The story, after all, has to talk about something beyond their day-to-day adventures. Most of the time, those very adventures help the character resolve some sort of problem or difficulty in his past, and bring him closer to achieving some form of stability in his life. In essence, the character story is the movement between the initial character (at the beginning of the campaign) and the final one. Players should always develop some basic character story for their PCs and tell the Gamemaster what they expect it to be.

Let us take the story of a street criminal from, say, Joshua's Station who lost his friends during the Battle of Elysée. He starts with a desire for revenge against Earthers and sets out on a path to slake that thirst. In the process, he discovers other people who, like him, suffered from the Battle and bonds with them. They work together for a long while, then near the end it is revealed that one of them is a former CEGA pilot who has forsaken his past and embraced the Jovian Confederation as his new home. Our hero feels betrayed, but eventually comes around and realizes that mistakes of the past matter little when compared to the value of his new friendship. In the end, the character walks away from his life as a rebel and joins the JAF to protect those who need it — people like his long-lost friends. Trite as this story may be, the character in the end is not the same as the character in the beginning. The character story is what occurred in the middle.

In roleplaying games, it is best to let the Player come up with his own character story, although it should be clearly explained and understood that the GM may modify it according to his campaign. The Gamemaster has at least something to start from, and the Player may enjoy the spins and twists which the GM comes up with. After all, if he knew everything about his character's story, the Player might find it less interesting to play.

Why even bother with a character story? You may think that your Players are obtuse or beyond help, that they only care about the Attributes, Skills and equipment of their characters, that they are munchkins and power gamers, or that they simply won't bother. Maybe you're right, but it's also possible that they were never introduced to the concept at all and might enjoy it. Give it a shot. Think of it as a pill and sugar-coat it with what they prefer to play, be it action, combat or whatever else strikes their fancy. If you're clever and discreet enough, they'll soon realize that it gives great depth to their characters and might insist on having a character story for every PC they play from now on.

◇ MAJOR LIFE CHANGES

As we mentioned above, characters should not be static. They evolve, grow and change as their experiences and needs push them towards new goals and beliefs. To spice up a character's story, the GM may consider bringing in some of the following elements, especially if they can help the PC grow. Remember, however, that overdoing it may be just as bad as not doing enough. Players may suggest life changes and the GM should welcome this input, but watch for disguised munchkinism ("I discover a super-weapon in a derelict ship").

▥ MAJOR LIFE CHANGES TABLES

•	Death of a friend/family member/beloved pet
•	Loss of a limb/sense
•	Expulsion from group
•	Surviving a deadly threat/accident/plot
•	Discovering a faith/idea/truth

◇ DEATH SCENES

This is often very tricky to pull off during a campaign. Character death can happen in one of three ways. It can be the result of a blatantly stupid decision on the part of the Player; it can be the result of bad dice; it can be a well-thought, planned decision on the part of the Player. Whatever the case, the GM should try to give meaning to the death of the PC, even if the Player did something totally weird or out of character.

Self-sacrifice often creates classic (and highly dramatic) death scenes. The Gamemaster should allow the Player to almost automatically succeed some kind of very heroic act if he is sacrificing himself for the sake of someone else. The threat of dying has to be very real, however, to prevent Players from sacrificing their characters every other game session. Optionally, the GM may grant a +5 bonus which the Player may spread over all the actions required by his death scene (a +3 here, a +1 there and another +1 there; or simply a +5 on one critical action).

Dying speeches are another staple of death scenes. They can be corny, but when skillfully done, they add an emotional depth to the scene that can even move some of the more sensitive Players to tears. The trick is to avoid so-called cool one-liners and turn the speech into a simple gesture, a smile or any form of closure on something which was important to the character in the past.

EXPERIENCE AND CHARACTER ADVANCEMENT ▼

Gaining experience and slowly building a character is one of the rewards of roleplaying. Too many Players, however, see this purely in a game perspective: How high are my stats? how much money does my character have? etc. It can be just as rewarding to improve your knowledge of the character as a person and develop a solid persona that will come alive in your imagination. Character advancement should reflect how far along in his "character story" the hero has come, not be the character story in itself.

We describe below a number of categories for which Gamemasters should award (or deduct, in the case of bad roleplaying) Experience Points (XPs) for roleplaying games. For tactical games, however, the Players may want to improve the pilots they are using if they have a continuing campaign. The surviving pilots, after all, should be allowed to improve their vehicle-related Skills if they perform well in combat. They should receive 1 XP for each recorded kill they have made (either an Overkill or all movement systems destroyed and no weapons left), -1/2 XP for each Light Damage they receive, -1 XP for each Heavy Damage and -3 XP if their vehicle is completely destroyed or rendered helpless (immobile and no weapons). If the campaign is hybrid (i.e. both tactical and roleplaying) and the Gamemaster is feeling generous, he may allow the Players to receive points for roleplaying (see table below) and for their tactical performance, but should insist that tactical XPs and ONLY those be spent on tactical Skills (Piloting, Gunnery, Electronic Warfare, Communication and Leadership).

EMERGENCY DICE ◇

These represents your character's true experience. Experience Points that are spent raising stats or buying new Skills represent training and techniques. The real experience, though, comes from using Emergency Dice. That's the experience that saves the skin of the pilot — he may not know all those fancy advanced maneuvers, but he's got the timing down pat with what he does know. In the real world, such experience is essential to reach a certain level of expertise. Tutors cannot teach that. As an optional rule, Gamemasters could require that a number of Emergency Dice be spent before the Player can buy the next level for one of his character's Skills. We recommend a number of EDs equal to the square of the next Skill level (i.e. to bring a Skill up to level 4, the Player should have used 16 Emergency Dice with that Skill since he's brought it up to level 3).

AWARDING EXPERIENCE POINTS ◇

Gamemasters should encourage character growth without making them into demi-gods. Make sure they put some XPs aside as Emergency Dice, which is probably the most tangible benefit of good play — they allow PCs to survive increasingly difficult situations. Gamemasters can also suggest (but never impose) which Skills PCs should raise, based on what they have been doing (practice makes perfect, after all) and what capabilities the party seems to be lacking.

AWARDING EXPERIENCE POINTS* ⬚

Base Experience	XP(s)
Player showed little interest in the game and did not get involved	0
Player gave a good effort, but did nothing exceptional	1
Player always stayed in character and showed enthusiasm	2
Technical Bonuses (Max +2)	XP(s)
Performed critical maneuver that moves the story forward	1
Discovered vital information or plot element	1
Makes clever and unexpected use of character abilities	1
Roleplaying Bonuses (Min/Max ±3)	XP(s)
Dramatic acts of self-sacrifice	1 to 5
Player selflessly provides scenes for other characters	1
Player acts wildly out of character, even if successful	-1 to -3
Scenario Bonuses (Min/Max ±3)	XP(s)
Players worked as a team	1
Minor setback or failure in a multi-session adventure	-1
Major setback or failure in a multi-session adventure	-3
Game Bonuses	XP(s)
Short Game Session (two hours or less)	x0.5
Typical Game session (three to four hours)	x1
Long Game session (five to ten hours)	x2
Marathon Game session (ten hours or more)	Normal XPs every four hours
*No session can end with less than 0 XP or more than 6 XPs	

▶ THE NON-PLAYER CHARACTERS
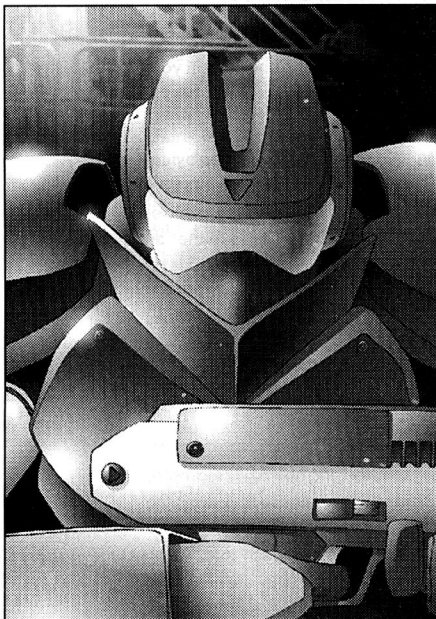
Non-Player Characters represent an essential part of any roleplaying campaign. They populate the world in which the PCs operate and they spice up any scenario. A game that does not feature at least a few NPCs for the Player Characters to interact with can suffer from a variety of problems, one of them being a lack of "life" in the game world. Players who simply adventure with their group and no one else are essentially walking in a desert, encountering the occasional enemy to defeat (through combat, of course) and don't have the feeling there really is a world for them to interact with. Wise Gamemasters will use hordes of NPCs to keep the Players on their toes. Since (theoretically) no two NPCs are alike, this means there are no standard reactions or operating procedures for the Players to rely on, forcing them to find new and creative ways to solve problems. Furthermore, this gives an advantage to PCs who have developed more than combat skills for their characters — the Etiquette Skill, for instance, can be tremendous help in pleasing the locals.

Important NPCs (see Lead Characters, p. 100 of the JC Rulebook) are like the Gamemaster's personal characters (sometimes called GMPCs) and should ideally benefit from the same level of attention to detail as the Players' own characters. They should be well developed, consistent characters, complete with their quirks, speech patterns and physical descriptions. The Gamemaster should be ready to play them at a moment's notice and always in accordance to their backgrounds and previous encounters with the Players (if applicable).

▼ LOOKS

One of the bane of most Gamemasters is the dreaded moment when they must create an NPC on the spur of the moment (the GM says, "This girl emerges from behind a crate, wearing a light space suit and holding a needler pistol in each hand, providing you with cover fire against the enemies," while thinking, "Okay, gotta figure out what she looks like, what her name is, what she's doing here… Whatever, I'll just keep shooting and figure it out after the combat scene."). The following tables should help in those situations. Naturally, the percentages and proportions are skewed and don't reflect reality, but it's at least helpful to have somewhere to start. Gamemasters should nonetheless make a minimum of effort to create the small details that make memorable NPCs (scars, styles of dress, speech, combat preferences, unusual items, etc.).

▯ APPEARANCE TABLE

Add 2d6	2	3	4	5	6	7	8	9	10	11	12
Age	20	25	30	35	40	45	50	55	60	65	70
Height	150	155	160	165	170	175	180	185	190	195	200
Weight	45	50	55	60	65	70	75	80	85	90	95
Hair	White	Blonde	Red	Auburn	Brown	Black	Brown	Auburn	Red	Blonde	White
Eyes	Amber	Blue	Green	Brown	Brown	Black	Brown	Brown	Green	Blue	Amber

Height is measured in centimeters; subtract 1 from dice for women. Weight is measured in kilograms; subtract 2 from dice for women.

▯ SPECIAL FEATURES TABLE

Add 2d6	Appearance	Behavior	Clothing
2	Albino	Zealot	Rags
3	One-Eyed	Gloomy	Poor Quality
4	Body Odor	Brutal	Inexpensive
5	Unusual Height	Silent	Utilitarian (cheap)
6	Scar	Tenacious	Uniform
7	Tattoo	Sociable	Plain
8	Bald	Loquacious	Formal Wear
9	Birthmark	Pacifist	Utilitarian (good)
10	Overweight	Absentminded	Elegant
11	Missing Limb	Drug Addict	Fashionable
12	Artificial Limb	Fanatic	High Fashion

SAMPLE NON-PLAYER CHARACTERS ◇

We provide you below with a dozen sample Non-Player Characters inspired by the various archetypes and NPCs found throughout our supplements. Even if you have those books, you can use those NPCs as quick-fix replacements until you can make full writeups.

NPCS IN A NUTSHELL

Generic NPC	+1 Attr.	-1 Attr	Lvl 3 Skill	Lvl 2 Skill	Lvl 1 Skill
Bounty Hunter	BLD	n/a	Notice	Hand-to-Hand	Combat Sense
	FIT			Investigation	Dodge
	INF			Small Arms	Intimidate
					Law
Executive	APP	n/a	Business	Bureaucracy	Computer
	CRE			Etiquette	Leadership
	INF			Leadership	Notice
	KNO				Psychology
Exo-Armor Pilot	AGI	n/a	n/a	Gunnery (Exo)	Combat Sense
	PER			Communications	Elec. Warfare
				Exo Pilot	Notice
					Small Arms
Marshal	AGI	n/a	Investigation	Combat Sense	Dodge
	BLD			Hand-to-Hand	Law
	FIT			Notice	Melee
	PER				Streetwise
Martian Guide	CRE	n/a	Navigation (Land)	Drive	Combat Sense
	FIT		Survival	Notice	First Aid
	KNO			Phys. Sc.: Geology	Mechanics
	PER				Small Arms
Medic	KNO	n/a	First Aid	Computer	Bureaucracy
	PSY			Life Sciences	Combat Sense
				Medicine	Etiquette
					Notice
Mugger	BLD	APP	n/a	Notice	Combat Sense
	PER	CRE		Intimidate	Dodge
		KNO		Streetwise	Hand-to-Hand
		PSY			Melee
Pirate	BLD	APP	n/a	Zero-G Movement	Combat Sense
	FIT	CRE		Hand-to-Hand	Dodge
	PER	KNO		Small Arms	Gambling
	WIL				Intimidate
Police Officer	BLD	APP	n/a	Investigation	Combat Sense
	FIT			Law	Drive
	KNO			Notice	Dodge
					Small Arms
Politician	CRE	n/a	n/a	Bureaucracy	Business
	INF			Etiquette	Leadership
				F. Language	Psychology
					Theatrics
Smuggler	AGI	APP	n/a	Camouflage	Dodge
	CRE	PSY		Combat Sense	Drive
	PER			Stealth	Forgery
					Small Arms
Trader	INF	n/a	Business	Navigation	Drive
	KNO			Etiquette	Intimidate
	PER			Gambling	Notice
					Streetwise

▼ EQUIPMENT PACKAGES

The packages below may prove useful on the fly. Each profession can be rated with three echelons: Insignificant, Noticed and Prestigious. Belongings are divided between Wealth, Combat, Survival and Technology. Refer to the sub-tables on the following page.

▥ EQUIPMENT PACKAGES

Profession	Insignificant (1-3)	Noticed (4-5)	Prestigious (6)
Bounty Hunter	Wealth -1	Wealth	Wealth +2
	Combat	Combat+1	Combat +2
	Survival -2	Survival -1	Survival -1
	Technology -1	Technology	Technology +2
Executive	Wealth	Wealth +1	Wealth +3
	Combat -2	Combat -2	Combat -2
	Survival -2	Survival -2	Survival -2
	Technology	Technology +1	Technology +2
Exo-Armor Pilot	Wealth	Wealth	Wealth
	Combat	Combat	Combat +1
	Survival -1	Survival -1	Survival
	Technology -1	Technology -1	Technology
Martian Guide	Wealth -2	Wealth -1	Wealth
	Combat -1	Combat	Combat
	Survival +1	Survival +2	Survival +3
	Technology -2	Technology -1	Technology
Marshal	Wealth -1	Wealth -1	Wealth
	Combat +1	Combat +2	Combat +3
	Survival -1	Survival	Survival
	Technology -1	Technology -1	Technology -1
Medic	Wealth	Wealth +1	Wealth +3
	Combat -3	Combat -2	Combat -1
	Survival -1	Survival	Survival +1
	Technology +1	Technology +2	Technology +3
Mugger	Wealth -3	Wealth -2	Wealth -1
	Combat	Combat	Combat +1
	Survival -2	Survival -1	Survival
	Technology -2	Technology -2	Technology -2
Pirate	Wealth -2	Wealth -1	Wealth
	Combat	Combat +1	Combat +1
	Survival	Survival	Survival +1
	Technology -2	Technology -2	Technology -1
Police Officer	Wealth -1	Wealth -1	Wealth
	Combat +1	Combat +2	Combat +2
	Survival -1	Survival -1	Survival
	Technology	Technology	Technology +1
Politician	Wealth +1	Wealth +2	Wealth +3
	Combat -3	Combat -3	Combat -2
	Survival -2	Survival -2	Survival -2
	Technology	Technology +1	Technology +1
Smuggler	Wealth	Wealth	Wealth +1
	Combat -1	Combat	Combat
	Survival -1	Survival	Survival
	Technology	Technology	Technology +1
Trader	Wealth	Wealth +1	Wealth +2
	Combat -1	Combat	Combat
	Survival -1	Survival -1	Survival
	Technology -1	Technology	Technology

WEALTH TABLE

Roll 1d6	Carrying (in credits)	Credit Card (30-80% spent)
-1 and below	1d6	0
0	1d6+5	0
1	1d6 x 5	500
2	2d6 x 5	1,000
3	4d6 x 5	2,500
4	3d6 x 10	5,000
5	2d6 x 50	10,000
6	1d6 x 100	50,000
7	2d6 x 200	100,000
8 and above	3d6 x 300	250,000

COMBAT EQUIPMENT TABLE

Roll 1d6	Weapon	Armor	Ammo Clip(s)
-1 and below	n/a	n/a	n/a
0	Club (AD+5)	Light Leather (5)	n/a
1	Hummerknife (AD+9)	Hvy Leather (8)	n/a
2	Needler Pistol (x7)	Light Composite (15)	n/a
3	9 mm Pistol (x15)	Light Composite (20)	+1 (8 ammo)
4	Gyroc Pistol (x15)	Duraplast Mail (25)	+1 (20 ammo)
5	Gauss Shotgun (x20)	Duraplast Mail (30)	+2 (30 ammo)
6	Laser Rifle (variable)	Heavy Composite (35)	+2 (10 ammo)
7	Maser Rifle (x22)	Durashell (50)	+2 (50 ammo)
8 and above	24 mm Anti-Armor Gun (x70)	Durashell w/Reflect (50)	+3 (3 ammo)

SURVIVAL EQUIPMENT TABLE*

Roll 1d6	Space	Wilderness	Urban
-1 and below	n/a	n/a	n/a
0	Oxygen Packs	Survival Rations	Watch
1	Water Bottles	Survival Kit	Datapad
2	Survival Kit	Compass	Personal Communicator
3	MetaCompass	First Aid Kit	Medium Class Clothing
4	Grapple Gun	Tent	Data Cards (1d6)
5	First Aid Kit	Binoculars	Video Recorder
6	MMU	MetaCompass	Designer Clothing
7	Emergency Bubble	Climbing Gear	Personal Computer
8 and above	Satellink	Communicator	Listening Device

*Result indicates listed item and all those above it.

TECHNOLOGICAL EQUIPMENT TABLE*

Roll 1d6	Infiltration	Communication	Technical
-1 and below	n/a	n/a	n/a
0	Binoculars	Cellular Phone	Drugs
1	Black Bodysuit (+1 Stealth)	Video Recorder	First Aid Kit
2	Nightvision Goggles	Tracers & Bugs	Cutting Torch
3	Lockpick (+1 Mechanics)	Communication Headset	MediScanner
4	Thermal Goggles	Scrambling Device	Mechanical Tool Kit
5	Gas Mask	WristComm	Medical Kit
6	Electr. Lockpick (+1 Electr.)	Communication Rig	Electronics Tool Kit
7	Helmet w/Comm, Goggles	Military WristComm	Tool Harness
8 and above	Stealth Bodysuit (+2 Stealth)	Mil. Comm (subdermal)	Surgical Field Kit

*Result indicates listed item and all those above it.

▶ THE PLAY IS THE THING

So far, we have covered the people who play the game (Players and Gamemasters) and the characters who are involved in the stories of the campaign. We must now cover the game itself — its rules and its storylines. Too often, Gamemasters and Players alike put the rules before the story, turning what would be a wonderful storytelling experience into a tiring exercise in mathematics, bookkeeping and technical haggling. On the other hand, some gamers go the other way, disregarding the rules completely in favor of a rich storyline. This can also cause problems — no one knows how the game is played and the Players experience frustration because they have no idea how to use their characters to the full extent of their capabilities. They feel at the mercy of the Gamemaster, acting as puppets in a scenario over which they have little control. Ideally, a game should balance rules and storytelling. Rules help define and quantify action scenes, but should not be used to overrule or stifle creative thinking. Much like a movie, gaming must feature some surreal action once in a while, just to make it more interesting for the viewer.

You, the Gamemaster, have probably already chosen (after talking to your Players) the type of game you wish to run: the style, tone, location, power level, etc. Your task now consists in engineering a story that will fit those criteria. This is your "homework," but it doesn't need to become a burden. In fact, calibrating the rules, detailing the part of the world in which the Players will operate and creating the people who inhabit that area are some of the pleasures of GMing. You should also more or less plan the course of the story and how you expect it to end initially. Remember that the Players may take the game in another direction altogether, but it is better to have an ending in mind in case you need it than not have anything and close the campaign with a pat ending.

Ongoing campaigns, which are created as the gamesessions go, are fine and dandy but they lack a tight storyline and often don't have as much dramatic impact as campaigns which have been carefully developed. If the GM spends a bit of time preparing a solid series of scenarios (often called "episodes"), his campaign (or "series") is going somewhere and has more consistency. You don't have to do it, but you will find that thinking in terms of episodes and series will make your life easier, and prevent your campaign from sputtering down into oblivion.

In a few words, keep it clean and tight. Know where you're going and roughly how long you expect to take to get there. Feel free to change your mind on the way, but remember to bring closure at the end of the campaign and quit while you're ahead. After all, how many series went on past their due deaths and now survive as pale shadows of what they once were? You don't want your Players to say, in a few years, "Oh, his game was fun until that particular scenario, and it went downhill from there — he should have ended it at that moment instead of dragging it on."

▼ THE PILOT EPISODE

Before starting a campaign, however, you may want to use a trick that television studios have used for decades: the pilot. Instead of doing the character creation separately or letting the Players come up with their own characters, have everyone come over on a Saturday, early during the day, and spend most of the afternoon designing everyone's PC. Take a break, have supper, and come back for a 4-5 hour evening session introducing everyone to each other and adventuring together for a bit. This will give Player Characters an opportunity to interact with one another and to find out whether they are compatible for the campaign. It gives them a taste of your Gamemastering skills, and it gives you an idea of how they play and what you can expect from them in the future. You will most likely see subplot ideas emerge which you should write down for future reference.

After the pilot session, give everyone a chance to modify their respective Player Characters if they're not entirely comfortable with them. If you need to make adjustments to the campaign's plot or its overall "feel," this is the perfect time to do it. Explain to your Players what changes you'd like to bring and why. In the world of television, there are often discrepancies between the pilot and the actual series which follows (a result of the modifications to the basic premises amde after test audience screenings). The changes hopefully makes the series more marketable and broadens its appeal. There's no reason why you couldn't do this with your own campaign.

▼ "AMERICAN" AND "JAPANESE" STYLES

When planning your campaign you can also choose between "American" and "Japanese" style campaigns. American-style campaigns are similar to standard American TV series: there is a basic concept and some (but not always) character evolution, but no fixed ending. Scenarios can tie into each other, but many will stand alone. Japanese-style campaigns have a planned ending from the get-go and pretty much every scenario takes a step toward that ending. American-style games can be a lot of fun and allow for more Player input, but they may feel episodic and static — very little seems to change. Japanese-style campaigns are usually more dramatic, but they are often shorter and Players may feel railroaded toward a pre-ordained ending.

A good compromise is to have an overall plot to the campaign with an ending in mind, but to also intersperse the series with scenarios that are not related. If you find that the PCs are more interested in these side-stories, you can change the campaign's focus slightly without anyone being the wiser.

THE RULES ◄

As we mentioned above, Players and Gamemasters often make too big a deal of the rules during roleplaying sessions. They really shouldn't. Rules are a means to an end, not the end itself. If a rule annoys everyone or doesn't seem to make sense, ignore it. That's right. IGNORE IT. We, the game designers, are telling you to ignore the rules whenever you believe it's appropriate (and fair). You are the Gamemaster, it's your scenario and it's your game. You decide what goes, not us. We just write the rules. It is your task to interpret then and use them as you see fit. So long as you remain fair and make sure the Players are having a good time (very important!), rules don't have to interfere with your fun.

Never let a Player bully you around by saying that the rules say you have to do this or that. That's only for general situations and may not apply all the time. That's why there's a Gamemaster. That's why roleplaying games don't translate well on computers — nothing is as flexible as human intelligence (and no, that's NOT an oxymoron). With time, you will find several Players who are fond of an activity that has earned the less-than-enviable name of rule-raping. This consists of finding all possible ways to abuse a game system by taking advantage of its unavoidable weaknesses and loopholes. Don't stand for it. Watch for it, especially during character creation, and expose it plainly. The direct approach can yield surprisingly good results.
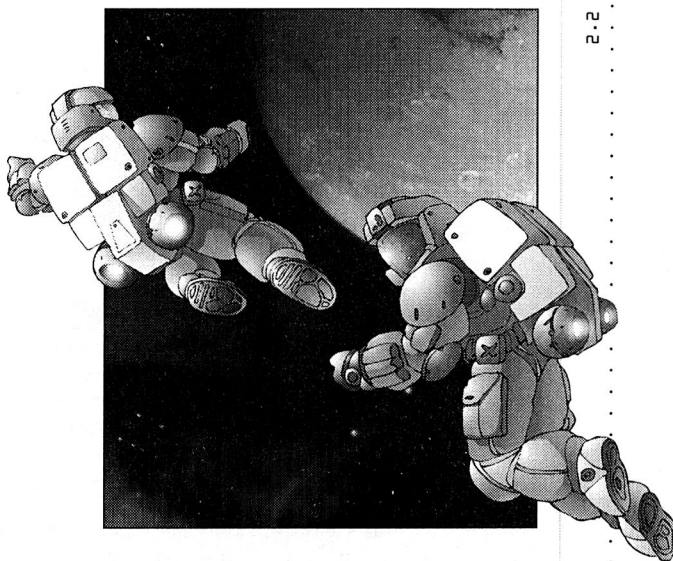
BREAKING THE RULES ▼

Sometimes, the rules get in the way of a good story. The Silhouette system is no exception. It is a fairly accurate (and unforgiving) simulation of reality. Sometimes, in order to move the game forward and entertain your Players, you have to bend or even break the rules.

Let the character run with it if he's found a creative way of handling a situation, even if it's not in the rulebook. If it becomes repetitive, however, you may want to tell the Player that it's becoming routine and won't get "preferential" treatment anymore. Save a character from certain death if all that condemned him was a bad die roll; it doesn't mean, however, that the character has to escape unscathed. Many Gamemasters dislike killing PCs because they fear the wrath of their Player friends. They let Players walk all over them and get away with outrageous behavior. Avoid this. Do not hesitate to kill a character who does something stupid and deserves what's coming to him. Anyone willing to enter a fight knows there's a chance of dying. If the Players figure out they are invulnerable, the game becomes an absurd parody of life.

Don't cheat on your die rolls. Except when Players shouldn't know the result immediately (e.g. Notice rolls), roll in front of the Players, not behind your screen. Players will feel they have earned their victories if they know you aren't giving them any breaks. Don't save a character who puts himself in harm's way. If the Player does it, he may be doing it for the right reason (sacrificing his character to save the group, for instance), but he may also be doing it for purely selfish reasons (to test your resolve about killing PCs, perhaps).

If the Players get into deep trouble, resist the urge to have NPCs come to the rescue. If they got into that mess on their own, they have to get out of it by themselves. If the cavalry rides in every time they're about to die — and no matter how action-packed it may seem to you — the Players will resent having NPCs steal their scenes. It is better to allow them generous chances to succeed (i.e. lower difficulty Thresholds) than relegate them to secondary roles and watch the henchmen save the day. If you really must introduce someone to help them, make sure that person is not equipped to handle all opposition and gets knocked down quickly.

IMPROVISING ▼

The ability to improvise is the most important skill a Gamemaster can develop. Gamers are notorious for doing the unexpected, pulling a rabbit out of their hats or throwing in the kitchen sink when all else fails. The more you try to anticipate what they're going to do next, the more surprised you'll be when they do something else. There are two ways you can handle it: you can railroad them into a single-line adventure that allows for no straying from the planned path (Players find that extremely frustrating); or you can be ready to improvise. Be smart and choose the second option.

You should prepare your scenarios before hand, but avoid being overprepared. It is better to give yourself room to maneuver than set out everything in advance. Try to have a few contingency plans for those fragile areas where you suspect the Players may go astray. Have several generic NPCs on standby to use in case the Players decide to investigate an area of your campaign you haven't fully prepared yet and be ready to use subplots as main stories if you don't have anything better to serve them. Deal with the situation and keep the game moving. Maybe you can gently steer the PCs back on the right track later — or perhaps the path they have chosen will prove even more interesting than you suspected.

▶ PLOTS AND SUBPLOTS

While the solar system of the 23rd century is full of interesting places and people, that is not enough to make a good game. Gamemasters need a good plot. If characters and creatures represent the meat of a campaign, the plot represents the backbone. Without plot, you have a shapeless mass or, at best, a gross and deformed being. Plots and subplots are essential elements of a campaign, and GMs need to work on them if they want to keep their Players entertained.

While subplots are important in that they give the story some depth, the main plot is something you can't do without. If the plot doesn't live up to your (and the Players') expectations, the whole campaign is going to come crashing down in flame. That's why it's always worthwhile to test your idea first to see if it will hold up, by asking the following four simple questions. If the answers to all four satisfy you, the plot you have chosen to explore should hold up to the rigorous demands the campaign will place on it.

◇ DO I CARE ABOUT THE CONCEPT?

If the entire group is composed of spaceship enthusiasts, a plot based around the struggle from freedom of a small Martian frontier town won't interest them much. Similarly, if the Gamemaster knows absolutely nothing and has little interest about the exploitation of asteroid resources, his space mining campaign, regardless of how much enthusiasm the Players feel about it, will be flat and lifeless. Make sure the storyline revolves around something all in the group know and care about.

◇ IS IT TOO PERSONAL?

That's the reverse side of the above question. You may find the intricate backroom politics of the Venusian Bank's board of director a fascinating subject, but it may bore even your scheming Players to tears. It's important that the plot of the game be about something that you care about, but make sure you don't go to excess.

◇ IS IT GOING SOMEWHERE?

Will the story advance throughout the campaign, or is it just a static backdrop in front of which the various characters interact? Plot is synonymous with action, and should have a sense of motion, of change. If you can't imagine a possible ending for it, or if you can't write a short "TV guide" style blurb that resume the main plot, then perhaps it's not a good one.

◇ WHAT'S AT STAKE?

Plot is about conflict and change. To gain these, you need to put something at stake, both for the Players and their characters. There has to be something to be gained, or to be lost, be it love, recognition, honor, money, or anything else that can motivate someone to put it all on the line.

▼ SUBPLOTS

Earlier, we mentioned subplots. They represent minor storylines that develop during the course of game play. Think of them as secondary attachments to the main story. Gamemasters should continuously introduce little leads and tidbits, regardless of whether Player Characters follow them or not. After all, the entire world does not revolve around whatever task the characters have set out to do. It has a life of its own. Often, subplots can later develop into the focus of a scenario. For instance, during one scenario, the characters might see a news report about the theft of a military arms shipment bound for one of the CEGA fleets. Later on, they might stumble across some thugs carrying some unusually powerful military-class weapons. A week later, the characters might be asked to neutralize a terrorist group which claims to have stolen a nuclear warhead and are ready to use it unless their demands are met. Not only is it good foreshadowing, it also gives Player Characters an opportunity to get involved before minor trouble becomes a big problem.

Among the classic subplots, stories revolving around love are certainly the most common. Romance is one of the strongest character motivations, and often reinforces a PC's determination towards his goal. It becomes particularly interesting when the character's loved one becomes involved with one of his enemies or vice versa (the classic daughter-of-the-villain-in-love-with-the-hero ploy). Remember that love can have tragic results, too.

Another classic subplot is that of the parent/sibling/master in need of assistance. Player Characters who have a broad network of friends and contacts will often call upon them for favors, but usually forget that favors should go both ways. Sometimes, it's a friend or a family member who comes to them with problems and requests. The character's sister is having a rough time with her love life and confides her problems to the PC; or the PC's brother was just dumped by his lady love, and since he doesn't buy her excuse, he wants the PC to try and find out if she left him for some other guy; or a mentor and long-time friend of the PC has disappeared (or was assassinated), and the PC needs to investigate what really happened; or a nephew or niece of the PC wants to follow in the PC's footsteps, but the latter doesn't think it's a good idea and wants to put a stop to it. The possibilities are numerous. Involving the Player Characters on a romantic or sentimental level almost invariably adds depth to their characters, and gives meaning to their life goals.

COMING UP WITH IDEAS ▼

The first step in any story development is to come up with story ideas. This need not be done in any organized manner, but it is usually preferable to write them down as they come. Many clever Gamemasters carry little notebooks with them in which they can scribble their ideas when they come to them. Those random concepts can later be culled, organized and further developed into full-fledged stories or characters. There are many possible sources for campaign ideas, a few of which are detailed further on.

Whatever method you use to find ideas, though, you should always remember that you have made implicit promises to your Players about the campaign from the day you started it (see *What are Players looking for?* on page 5). Ideas will have to be shaped to fit these promises, or they will have to be discarded. The campaign has a style and a purpose. It has a tone, an attitude; it may be based around fast-paced action or quiet, intricate relationship (or any other style you wish to explore), but it's that campaign's "voice." Players expect you to stick to that style always, and that expectation is justified. You shouldn't change it on a whim, because it diminishes the overall strength and consistency of your campaign.

You should also be mindful of the overall purpose behind your campaign. Every game session you add to the storyline should make that purpose (sometimes called the "message" or the "goal") more obvious, more clearly defined. It should emphasize what direction the campaign is taking, where you're going with it. If you change those two premises from session to session, you will confuse your Players. If they come to the game expecting extra cheese pizza and you serve them green peppers and peanut butter pizza, you're going to have a very puzzled (and possibly quite disgusted) group of Players. In short, once you've made your choice, stay true to your campaign concept.
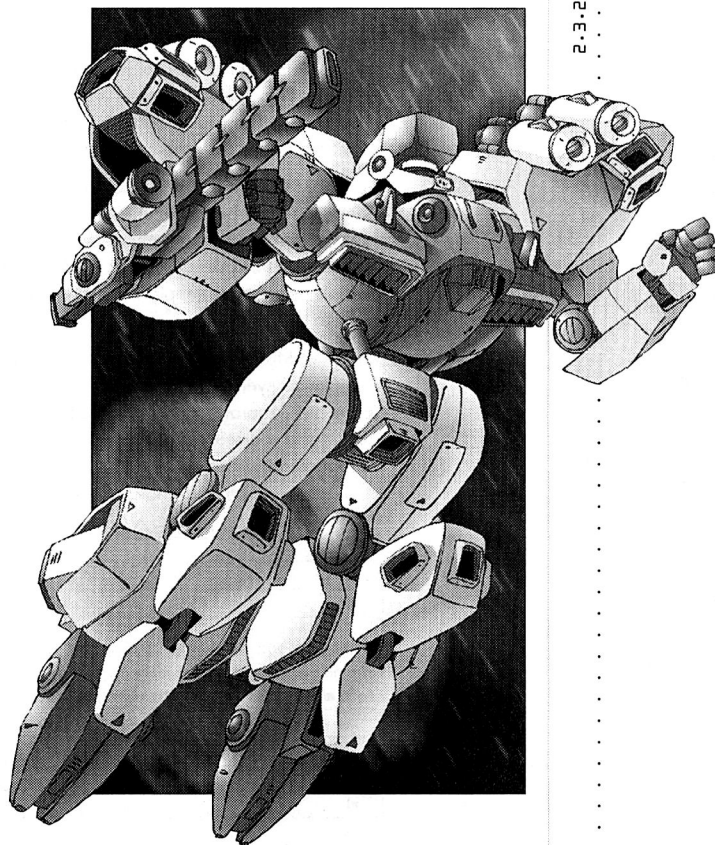
BORROWING CONCEPTS ◇

Gamemasters should not be afraid to borrow ideas from other sources. For one thing, roleplaying is usually done to have fun and reliving a version of a favorite movie or book can be just that. Sometimes, a new twist on an old story can be just as enjoyable as an original tale. Shakespeare is recognized as the English language's greatest dramatic author, but he "stole" most of his plots from classical or medieval sources. GMs should not hesitate to do the same. One potentially great (and inexpensive) source of story bits is the local TV guide. All the movies are briefly summarized and can provide a story seed which a GM may find relevant to his or her campaign.

THE NEWS ◇

Another extremely realistic source of ideas, the morning newspaper provides a needy Gamemaster with seeds for countless adventures. It may be useful to link a contemporary personality with one of Terra Nova that has corresponding goals and values, and to see what he or she does. As soon as that personality makes a statement or takes action, the GM can determine an equivalent for the Terranovan personality. You should always remember, however, that Terra Nova is a bit more colorful than contemporary Earth, so you have to make your events equally vivid.

PUBLISHED ADVENTURES ◇

Naturally, you can also use several of the plot ideas provided in most Jovian Chronicles books. Some of them may not be usable for the Player Characters in your campaign, but you can use them as background elements or scenarios in which your NPCs participate — it gives them something to talk about to the Players when they meet.

WILDERNESS ADVENTURES ◇

When all else fails, the classic "wilderness" adventures remain a solution. The PCs are dropped in the middle of nowhere and have to make their way back home. The story then come from the struggle of the trip and the effect it has on the characters. Another time-tested scenario could be the "Jail Break": the PCs have been captured and must make their way out. In doing so, however, they stumble upon something much bigger and must resolve that problem first if they are to survive.

▼ PLOT MOVERS

Most roleplaying games operate as a succession of scenes. Player Characters interact with NPCs, through conversation, intimidation, combat, etc., until a point where the scene should end. Novice Gamemasters are often apprehensive when that moment comes, especially when they have to resort to improvisation. They don't know what's coming next and how to handle it. They know they must keep the game moving before someone gets bored, but they've got the equivalent of writer's block. They don't know where to go next and how to handle it. All they need is a trigger, something they can use as a springboard towards the next scene. That's what we call a Plot Mover.

Preferably, Gamemasters should always have a few Plot Movers ready before the game, in case things get stale or slow. Ideally, it should be something which is at least mildly relevant with the current storyline, or possibly a hook to a future thread which the Players can choose to follow later on. Because they are designed to spice things up, most Plot Movers tend to be action oriented — nothing livens up the atmosphere like an old-fashioned chase scene or a combat. It is entirely possible, however, to simply have a mysterious character show up, do or say something very odd, then vanish into the night, never to be seen again.

Since Plot Movers rely heavily on improvisation, only develop the basic premise enough to keep the scene going and to wake your Players up. Figure out the rest later, after the game, when you have more time to elaborate on that premise. Sometimes, improvising something forces you to put a new twist on what you had designed and helps you surprise your Players (and yourself) with an unexpected turn of events. The following text is a list of standard Plot Movers, along with a few customization ideas, that should prove useful.

◇ ASSASSINS

a)	The assassin gets killed by the PCs and drops a hint (verbal or physical) as to who hired him.
b)	The assassin leaves and the PCs track him down to a hideout from which he vanishes without a trace.

A hired killer botches his attempt on a PC's life. Few Players will appreciate having their character's life threatened and will likely pursue with extreme prejudice. It doesn't really matter how powerful the assassin is, but make sure the botched attempt is believable. An assassin can be used either to lead Players to new hints, or to confirm that they are getting too close to the truth.

◇ BUREAUCRACY

a)	A stubborn (and incorruptible) clerk seems determined to stop their efforts with countless forms.
b)	A corrupt clerk misdirects the characters' investigation toward several dead ends.

The characters run afoul of red tape in their adventuring: tax investigators, police, local politicians, petty bureaucrats, lazy technicians, etc. Perhaps they need to speak to someone, or they need a permit. Bureaucracy is a great way of making the Players squirm, and is easy to do: everyone has at least one horror story about their local bureaucrats. Depending on the current situation, the red tape can be played for laugh or can be deadly annoying.

◇ HOME FRONT

a)	The enemy only wants to scare the characters and leave, but may hurt them if threatened.
b)	He hurts or kills one as a demonstration of what may occur if the PC persists.

Some enemy threatens a PC's family or close friends. This will generally get the Players moving really fast, unless the character is a loner. A variation of this is to target the character's home (a burglary, for example) or most prized possession, either as a warning or as a way of blocking certain paths.

◇ INNOCENTS IN DANGER

a)	The villains make outrageous demands and threaten to kill a hostage every 15 minutes.
b)	The hostages are actually accomplices of the villains.

Enemies have taken hostages and are making demands. Any hero worthy of the name should immediately try to resolve the situation, regardless of personal cost or the fact that some of the villains may escape during the rescue attempt. This may not work with all Players, unfortunately — some characters out there are even more cold-hearted than the villains.

◇ RAW ACTION

a)	The opposition is real and will carry through with its mission, perhaps even with fanatical zeal.
b)	The opposition is only strong enough to distract the PCs from the real crime happening elsewhere.

The chief enemy has sent some troops to get rid of those pesky Player Characters. Combat is probably the best-know and most basic plot mover in existence. It can be crude at time, but it has endured precisely because of its simplicity and its efficiency.

REMEMBER ME? ◇

a)	He means to kill the Player Characters to make them pay for their past affront.
b)	He only wants to hurt them, ruin their reputations and threaten their loved ones.

The PCs are not the only ones with a long memory: an old enemy comes back to haunt them. Whether this has any relevance to the main plot or is merely a way of giving the GM time to think about his next move doesn't matter much. Recurring villains tie in neatly with several Character Flaws (see **Jovian Chronicles Companion**) and also help give a cohesive whole to the campaign.

CROWD SCENE ◇

a)	They have to go against the flow of the crowd to find/escape their prey/pursuers.
b)	The enemy begins shooting through the crowd to get to the Player Characters.

The PCs are in hot pursuit (or being chased) and they fall upon a parade or some kind of rally. The presence of this many innocent people will cause additional problems, no doubt. Crowds can also be used to give hints to the Players: a glimpse of a known face, or perhaps the crowd knows something they don't.

ANNOYING REPORTERS ◇

a)	A reporter decides to tail the PCs and see if they lead him to a hot story.
b)	The reporter finds out about some embarrassing information regarding the PCs' past activities.

The Player Characters are investigating something and so is that annoying reporter. Unwanted media attention is a great way to steer characters back on track, or to confirm their suspicions. It can even be used to tell them information they don't yet know about, often much to their embarrassment.

BEAT THE CLOCK ◇

a)	Some deadly device (bomb, poison, raid) is going to be set off if the PCs fail to stop it.
b)	Enemy reinforcements are on their way and will surely capture the PCs if they don't hurry up.

The PCs are in a tough spot and only have a limited amount of time to resolve the situation. This plot mover is best used when the Players have a tendency to hesitate and discuss possible courses of action endlessly. The time limit doesn't have to be hard and fast — exactly five minutes, for example; just a general sense that time is running out will prove to be enough most of the time and will allow more leeway to the GM.

WEATHER PATTERNS ◇

a)	A hurricane suddenly develops and hinders both movement and visibility.
b)	Characters find themselves ill equipped to handle the weather and must quickly find shelter.

While the environment of the various space colonies is perfectly controlled, all the planets in the solar system are prone to violent and sudden changes in weather (some more than other). Unless the PCs are local or have a native guide, they may be placed in grave danger by their ignorance of the local safety procedures.

WHEELS WITHIN WHEELS ◇

a)	A group needs them to distract enemy forces, who happen to be on their side in the first place.
b)	The PCs obtain evidence of some conspiracy, and several buyers start harassing them.

The PCs find themselves inadvertently entangled in the political machinations of several groups. This plot mover is a great springboard to further adventures, as most Players don't like being played for fools and will likely attempt to dig to the roots of the whole affair. Given the number of political and factionalist groups in the solar system, it shouldn't be hard for the GM to find a suitable puppetmaster.

THE WORLD OUT THERE ◇

a)	The PCs learn about some important international event.
b)	The PCs hear about some local rumors of trouble with nomads or rebellious youth gangs.

Sometimes, even Player Characters pay attention to the news — and the solar system has a lot of those. It is generally easy to present a small news item (on the Personal Access Network, the SysInstruum or the local vid channels) that will give them additional clues or put them on the right track again.

► FUMBLES

Too often, gamers believe that a fumbled Skill roll spells doom for the Player Characters. If everyone wants to play it that way, that's fine, but it's probably more fun to be a little more flexible. Most of the time, fumbles can complicate an already tense situation and make the Players nervous. Fumbles should only really matter during combat, where they can have critical repercussions. Players should be encouraged to spend their XPs to purchase Emergency Dice and avoid fumbling. Characters with Skills at level 1 should be aware that they will fumble one out of every six times, and spend XPs accordingly (or suffer the consequences).

◇ ATTACK FUMBLES

These are the most common fumbles, and the ones that may have the nastiest effect on the PCs' health. Gamemasters may use some of the suggestions below or come up with their own variants. Ideally, it should indicate a complete failure to hit the opponent and inconvenience the PC without having a crippling effect.

☐ ATTACK FUMBLES RANDOM TABLE

Roll 1d6	Candy GM	Nasty GM
1	Dazzled by unforeseen reflection	Momentarily blinded
2	Dud ammo	Ammo explodes
3	Melee weapon gets caught on something	Weapon breaks
4	Misfeed	Misfeed; lose 1d6 ammo
5	The gun jams	Gun jams; 1d6 rounds to clear
6	Character slips	Character falls hard

◇ DEFENSE FUMBLES

Defense Fumbles are the most tragic of all. Seeing as they yield a result of 0 for the purpose of calculating the Margin of Success of the attacker, they often have lethal effects. If the Player Character who fumbles a defense roll has the Character Perk of Luck, he should use it right then and there. Because of the mathematical nature of the defensive fumble, all the Gamemaster has to do is describe it in an interesting way. There is no way to avoid the damage.

☐ DEFENSE FUMBLES RANDOM TABLE

Roll 1d6	Candy GM	Nasty GM
1	Mistimed defensive move	Chose wrong defensive move
2	Distracted	Confused
3	Peeked from cover at wrong time	Cover falls over/falls apart
4	Character slips	Character falls hard
5	Disoriented	Facing wrong way
6	Took a wrong step	Ran into the attack

◇ PERCEPTION FUMBLES

Characters should be required to make Notice checks on a regular basis to become aware of imminent threats or to pick up obscure details. A fumbled Notice roll does not necessarily mean the character hears, sees or otherwise perceives nothing — sometimes, it's just that the PC picks up the wrong information. Gamemasters should be creative and have the character's attention focus on something which may only seem relevant, but isn't.

☐ PERCEPTION FUMBLES RANDOM TABLE

Roll 1d6	Candy GM	Nasty GM
1	Distracting sight or noise	(Falsely) perceived danger nearby
2	Dazzled by unforeseen reflection	Grain of sand in the eye
3	Misread/misheard important detail	Misread/misheard crucial detail
4	Sensors' battery runs out	Sensors malfunction
5	Attractive person passing by	Attractive person waves
6	Shadows play tricks with the eye	False sensor echoes

SOCIAL INTERACTION FUMBLES ◇

The traditional faux-pas do not come without a price. Whether the PC is trying to intimidate a prisoner, lie to a police officer or seduce a potential romantic partner, social interaction fumbles can yield a variety of results, from the totally dramatic to the irresistibly hilarious. Depending on how tense the situation is, the GM may use the fumble to lighten or darken the mood. Social Interaction fumbles should not be overly dramatic or permanent. Gamemasters should give the Players the opportunity to talk their way through it and perhaps to reroll if they've come up with a clever excuse or explanation for their fumble. Be careful to not give it to them too easily — they did fumble — and no matter how good the secondary roll may be, it shouldn't completely compensate for their mistake.

SOCIAL INTERACTION FUMBLES RANDOM TABLE ▥

Roll 1d6	Candy GM	Nasty GM
1	Insult listener by bad translation	Insult listener by poor choice of words
2	Momentarily forget an important detail or argument	Call listener by the wrong name
3	Mistaken identity — listener lose interest	Someone you know arrives and contradicts you
4	Unbecoming fit of coughing	Unnoticed dripping nose or other bodily function
5	Accidentally use argument that's painful to listener	Complete etiquette *faux-pas*
6	Use wrong detail or argument	Use glaringly incorrect detail or argument

STEALTH FUMBLES ◇

While almost never immediately lethal, fumbling a Stealth check can rapidly lead to a life-and-death situation. The Gamemaster should be lenient, however, and give the PC some chance to recover the situation. After all, in this case, failing a Stealth check only means the character is visible, not necessarily noticed. Someone has to be paying attention in the first place. This is a classic in movies and literature. Use it and turn the PCs into nervous wrecks. If the character is noticed, you can either follow up with a combat scene or a chase scene. Either way, if your game was getting a little slow, this is the perfect time to get some action going. Be especially harsh against Players who make it a habit of taking off without the rest of the group to go "solo." Being discovered is much less serious if you have backup.

STEALTH FUMBLES RANDOM TABLE ▥

Roll 1d6	Candy GM	Nasty GM
1	Animal takes a loud interest in you	Equipment behind character loudly starts up
2	Character breaks a twig	Character leans on something that loudly crumples
3	Watch/WristComm/Datapad starts beeping	Coughing fit
4	Fail to notice give-away shadow	Fail to notice give-away reflection
5	Stumble upon passerby	Stumble upon security guard
6	Fail to notice security camera	Wander straight into security grid

TECHNICAL FUMBLES ◇

Technicians don't always know they've fumbled their work. Sometimes, it only becomes apparent when the device, weapon or vehicle is being used. In such situations, the GM should test the Skill behind his screen (just so the PCs don't realize the roll has succeeded or not), then decide what to do if the result is a fumble. The possibilities are endless, and all are valid if they annoy the character to at least some extent. Another option is to have a part break or explode immediately (doing only minor damage, if any). This can set the Player Characters on a rapid side-quest to find a replacement part in a panic. A technical fumble can also be used for recurrent comic relief.

TECHNICAL FUMBLES RANDOM TABLE ▥

Roll 1d6	Candy GM	Nasty GM
1	Forgot to replace batteries	Break important piece (vital to object's main function)
2	Computer crashes	Computer wipes its memory and drives
3	Device works for 1d6 turns	Device works for 1d6 turns, then fuses
4	Device works just half the time	Device works only upside-down
5	Equipment emits a shower of sparks	Equipment's innards disintegrate
6	Equipment will blow up on 1d6th activation	Equipment blows up

▶ COMBAT

Without conflict, there is no plot. Characters who do nothing and face no opposition make for poor stories or, more precisely, do not make a story at all. Conflict is a vital part of storytelling, and conflicts sometimes lead to outright combat. In roleplaying and tactical games in particular, combat is almost unavoidable. Unfortunately, many novice Gamemasters blunder and run combats in a methodical, almost monotone manner. While few Players will leave a campaign because the combat situations are uninteresting, it is always wise to have that angle covered, and to run fight scenes that grab their attention and get their blood racing.

Combat is one of the GM's multi-purpose tools. It can get the game moving again, provide clues that went unnoticed before, wake the Players up when the game enters a lull and generally spice things up a little bit. Unfortunately, it also means there is great potential for abuse.

As a Gamemaster, you must remember that Players don't always know everything which their characters know. For instance, a twelve year-old Player with a grizzled combat veteran PC may not know what to do if he gets ambushed, but his character would. If you as a GM can think of a better way to react to a situation than the Player does, and if it would make sense for the PC to know what you do, then it's your duty to at least tell the Player how to improve his odds of survival. Allow Knowledge or Skill tests if the information is relevant.

Note that the reverse situation is also possible, and you should encourage your more knowledgeable Players to give you hints if they know something you don't. Do yourself a favor and take their advice; it'll make you a better Gamemaster in the end. Remember: you're a judge, not a god.

As with all things in gaming, common sense should prevail. Be flexible, be fair and most of all, be entertaining. The Player Characters are the heroes, so they should more or less win the fight, unless they really mess up their die rolls or work against each other. Still, don't be afraid to kill characters if they deserve it (i.e. if they did something tragically stupid) or if the Player wants to retire his current PC to start a new one. If one Player tries to get another killed, however, there is a serious problem that could stem from Player conflict. Discourage this behavior as best you can, unless everyone is open to vicious PC rivalry (a rare situation, indeed).

This section covers most of the elements which you should watch for during combat. Vehicular combat makes use of pretty much the same elements, suitably modified to take into account their greater size and speed. For instance, vehicles may also make use of cover, especially nimble vehicles such as exo-suits or combat bikes.

▼ COMBAT SENSE

Many Players chafe under the restrictions imposed upon them by the Combat Sense Skill. They don't understand why they're not allowed to take actions if they blow their rolls. "Hey, all I wanna do is shoot my gun! It doesn't take a genius to do that!" These Players have probably never been shot at or have forgotten what it's like. It's easy to sit in an armchair and pretend to have the reflexes of a squirrel and the heart of a lion, but reality doesn't work that way.

When a human being is placed in a dangerous situation, his mind drops back to a more primitive, survival-oriented level. We all fear being hurt, especially by lethal chunks of metal flying at Mach 1. Much of a soldier's training focuses on new reflexes that improve his odds of survival and help override these natural instincts, thus allowing him to fight back without having to think about it (and lose precious seconds panicking).

The key to translating this into game terms is to be explicit. Don't say "You fumbled your Combat Sense roll, you don't get to act." Say instead "You break into a cold sweat and you flinch defensively as the polyplaster on the wall just above your hiding spot explodes, the water inside flash-vaporized by an enemy laser. You want to do something, but it's like you're just a passenger in your own body. Your hands fumble for your weapon, but you're too nervous and you can't seem to get the safety off quickly enough." That way, the Player won't feel cheated and the character may actually start avoiding combat situations, much like a real person would (a sane one, anyway).

▼ MOVEMENT

While movement rates can be used in roleplaying, they should serve as a guideline more than exact numbers. Drawing a simple map may help the Players relate to the environment and choose on their course of action. You can use pieces of string to approximate how far the characters can get, but avoid calculating every half-centimeter of movement. It can slow the game to a crawl and make it look more like a lagging computer simulation than the dangerous, fast-paced melee your Players are expecting.

In the case of vehicles, there are numerous driving and piloting stunts available to the PCs, and it would be futile to try and list them all. You should simply choose a difficulty threshold for the action — a bootlegger turn at 120 kph is a lot harder to do than a simple U-turn at 10 kph. Whatever the action attempted, apply the vehicle's Maneuver as a modifier on all Piloting/Driving tests.

CHASE SCENES ◇

Chase scenes and frantic pursuits are a staple of the action genre, and can provide some great gaming moments. The Gamemaster should decide how far apart the participants or vehicles are from each other at the beginning and note the speed (in meters/round; for vehicles, that's MPs x 10) down on paper. Each combat round, the characters/drivers/pilots should make an Opposed Skill Test (either Athletics, Drive or Piloting), then add their speed in meters/round (don't forget that some terrain will slow you down) and any applicable modifiers.

The winner of the test may increase or decrease the distance between the participants by a number of meters equal to their Margin of Success. The pursuit ends when one side is disabled, the pursued party moves out of sight, or someone gives up. Chases in space are less exciting, though. In general, it's all a matter of who can keep up the highest acceleration for the longest time. A good Space Navigation roll, though, can allow either vessels to use a nearby gravity well to increase speed without spending fuel (see page 86 of the **JC Companion**).

CHASE SCENE MODIFIERS* ▯

Condition	Modifier*
Traffic	-1
Heavy Traffic/Obstacles	-2
Winding Path	-3
Tightly Winding Path	-6
Maneuver	**Modifier***
Slalom (+1 to defense rolls)	-1
Wheelie (bikes only)	-1
Bootlegger (180° turn, full stop)	-2
Side Wheels	- (Size/2), round up**

* All modifiers are cumulative

** Modify by an additional -2 if no ramp is available to shift the vehicle's weight.

THE ENVIRONMENT ▼

For some reason, opponents (and sometimes even the characters) often don't use the cover they have available — a horrible mistake. The Silhouette system is lethal, and the only way they can hope to survive a fight is to avoid being hit; that means using cover. Just standing there and shooting may work in Dick Tracy movies, but it's hardly believable. Gamemasters should always provide the Players with some opportunity for cover (see the defensive values for cover in the **Jovian Chronicles Rulebook**, p. 115). If they're fighting in a hangar, make sure there are dumpsters and crates nearby. Be descriptive. If you want, go visit a warehouse or hangar before the game and jot down a few of the cover opportunities you can find. The more details you give the Players, the more they'll use it and the more dynamic your combat scene will be.

Gamemasters should feel free to play around with lighting and visibility. A fight in the dark can be extremely unnerving for the Players, especially if they forgot to bring some kind of lighting equipment. A combat scene in a cramped, smoke-filled compartment is also another movie classic that has great impact on the Players. Whatever you do, avoid bland gamespeak ("You have a -2 modifier for all attacks"). Instead, describe the situation: "The acrid smoke gets into your eyes and blurs your vision. To make matters worse, it's very dark; your only light source is the spaceship's emergency lighting strips, placed high on the wall to your left. Suddenly, flashes burst from the blurred shadows, briefly revealing the outlines of incoming gunmen. (Oh, and by the way, your attacks are at -2.)"

BURST FIRE ▼

Most people see burst fire as nothing more than a waste of ammunition, or as a rule too complex to bother with. It's not. Burst fire is a great way of forcing your opponents to keep their heads down while you're doing something else, such as moving to a better position or opening the lock on a door. If you want actual rules for personal-scale suppressive fire, use the Saturation Fire rules from the tactical game (see page 157 of the rulebook) and use 10-meter radius instead of hexes. Make the defender roll his Willpower to beat the Threshold. If he beats it, he can take his action(s) — and possibly take a bullet (or two, or more) for his trouble if his subsequent defense roll isn't high enough.

INJURIES ▼

Whenever a character gets wounded, there are consequences. The black and white nature of the Silhouette wound system is often misleading, however. While some wound may not be enough to register a game effect, it will certainly affect the character. Keep reminding him about it: "Okay, your shot hits the second gunman. By the way, the recoil from your rifle causes a sharp stab of pain in your bruised shoulder." If you remind him often enough, the Player will eventually have to do something to fix it, if only to shut you up. See page 68 of **Jovian Chronicles** for more about wound descriptions.

2·5·3
2·5·4
2·5·5

◇ ACTING TOUGH

It is a tradition in roleplaying games to act tough and ignore the wounds of our Player Character. Thanks to a powerful Hollywood tradition, most Players assume that showing a brave face is an easy feat and try to roleplay that, hoping to fool a generous GM into letting them get away with it. You know better than that. If they really want to ignore (at least partially) a wound penalty, you should ask them (no more than once per combat scene) to make a Willpower test versus 5 (like all rolls, this one is affected by the action penalty for the wounds; -1 per Light Wound, -2 per Deep Wound). You can reduce the PC's action penalty by a number of points equal to the Margin of Success. Note that this "counter-penalty" only affects the action penalty, not Health tests or any other test the GM deems appropriate. If the Player fails his test, he should make an immediate System Shock test, adding the Margin of Failure to the other penalties to his roll.

The Players should be encouraged to spend Emergency Dice to improve their odds of success if they really want to look tough. We recommend that this rule only be used in Cinematic games, although Gamemasters may want allow a Player Character to do it during a scene that is particularly heroic where he is risking his life. At the end of the fight, the GM should also have the Player roll a standard System Shock test to see if the character remains conscious.

You may need to refer to some rules in the rulebook in order to quickly resolve these rolls. System Shock is explained on p. 68 of the rulebook; Health tests are explained on p. 112 of the rulebook.

▼ THE OPPONENTS

Gamemasters often under-play the opposition to the characters. Enemies are real people who want to accomplish their mission and live through it. Like the Player Characters, they use their intellectual resources to their limits and take advantage of every break offered to them (unless they're not particularly bright). They don't particularly relish the thought of physical harm and take appropriate action to prevent it. They will use body armor, cover, ambush, sneaky tactics, grenades — anything that will keep them alive while eliminating the threat. Whatever the Players do, the bad guys can do also. The Gamemaster should not give his NPCs any bonuses for creative combat maneuvers, however. That's something that should only be given to Player Characters. Overall, by playing smart villains and enemies, the Gamemaster can avoid the escalation syndrome that can lead to outrageous opposition. ("What? Another squad of Legendary pilots?!?") Keep your enemies smart and weak.

▼ BASIC TACTICS

There exist more combat tactics than can be covered in this booklet. If you really want to put your Players through hell, just try to find information about the basic techniques used by real-world soldiers. (Alternatively, you could also to a net search on the internet to find the Evil Overlord's List, which describes what you need to do to have a good, invulnerable villain.) Note that the following tactics should not be used to eliminate characters wantonly, but basic techniques which military types should know. They can be used by PCs as well as Gamemasters, so you may also want to show them to your Players to give them a fighting chance.

Using these hints and tactics, you will quickly realize that you don't need powerful characters to provide strong opposition to the Player Characters, and in fact that you can challenge them with even the weakest of adversaries. Be cautious, however, not to make them feel inadequate or incompetent. Your Players' egos could be hurt if you repeatedly defeat them using weaklings. Since they are the heroes of the story, you should be lenient and make sure that once you know how to defeat them, you don't get carried away and defeat them ALL the time. Be generous and let them have some fun. It's their story after all. Some Gamemasters often root and cheer for their villains, which is all right if they want to give their Players a scare, but ultimately, they shouldn't be sincere. The game isn't a competition between the GM and the Players, but an exercise in collaborative storytelling.

◇ GATHER INTELLIGENCE

Ask around about potential enemies. Get the lowdown on who they are, how they operate, what kind of equipment they use, who employs them and on their greatest weaknesses. Knowing your enemy is essential. If you know what tricks they will pull on you, you can prepare against them and turn the tables. If you don't, you can bet you'll be at a disadvantage (especially if they did their homework and studied your profile). Proper intelligence is vital to success in combat. It's improper intelligence that is a problem.

◇ GET TERRAIN ADVANTAGE

Make sure you choose where the battle is going to take place. If you can, lure the enemy into a narrow location where his maneuverability is reduced, then hit him with all you've got. Being on your own turf is certainly a great asset in any combat situation. You can set traps, lead the enemy into your own troops, corner your opponents in a dead end, etc. Even if you don't get to choose the battlefield, still try to make the best of what you've got. Terrain advantage is extremely effective and one of the lowest-cost solutions to handle more powerful opposition. Incidentally, avoid doorways and obvious access points. They are often watched and booby-trapped.

SHOOT FIRST ◇

That's probably the main rule you have to learn. If you get rid of the enemy before he can even try to hurt you, your chances of surviving the encounter are excellent. Don't allow the enemy the opportunity to fight back. Use snipers if you can — you can see them, they can't see you. The idea is to strike first, strike hard, and show no mercy.

GET COVER ◇

Any cover. Fast. A ditch, a tree, even a street curb will do it if nothing else is available. By using cover, you greatly reduce your odds of taking damage, or reduce that damage if you get hit. Never walk on the road if you can walk in the forest. It may take longer, but you have more time than health. Usually.

AVOID TROUBLE ◇

The best way to handle a potentially explosive situation is not to pull the trigger. Try talking your way out of it. Better yet: try NOT to be there when the proverbial spit hits the fan. If you're not there to be shot at, you can't get hurt. If at all possible, try to steer clear of potentially dangerous areas. Gamemasters should give Players fair warning about what could be considered dangerous behavior, but if they persist, then they're fair game. For Non-Player Characters, the GM is the final judge of whether his NPCs are reckless or not. See page 91 of the **Jovian Chronicles rulebook** for more detail.

WHEN IN DOUBT, GRENADE IT OUT ◇

With a good toss, a grenade can get within some of the most heavily armed positions. It can rid you of multiple opponents at once, and is generally unconcerned by body armor. Tear gas grenades are also great to incapacitate under-equipped enemies. Unless they have appropriate gas masks, they choke, cry and become easy pickings. Be careful, however. Clever people will use mesh screens to keep grenades out and possibly send them back your way! Smoke grenade are also great. They provide some cover for you and can psyche out your adversaries. Just remember that smoke goes both ways. They can't see you, but you can't see them.

IF IT'S OBVIOUS, IT'S PROBABLY A TRAP ◇

If there's something in the middle of the road that looks suspicious, or if you're entering a canyon that seems to be the perfect site for an ambush, then you're probably headed for trouble. And even if you're not, a healthy dose of paranoia is going to get you through many adventures. A word of caution, however: paranoia in small doses is fine, but if you spend 90% of the game session taking outrageous precautions before doing anything, you're wasting everyone's time. Stick to what makes a modicum of sense. As for NPCs, they should be reasonably prudent, but nothing is more boring than an NPC who has prepared everything and is always ready for action. Be sensible.

WORK IN TEAMS ◇

Characters should cover each other as they advance, leapfrogging toward their objective and ducking behind cover. They should first concentrate their firepower on the highest visible threat, then move to the next biggest threat, and so on. Always find the enemy's weak point if there is one. Make sure to coordinate fire to benefit from multiple attacker bonuses. Attacking from several angles and distracting the enemy with mock fire is a great way to instill a sense of panic among the opponents.

USE PASSIVE DEFENSE SYSTEMS ◇

Mine fields, wires, and traps can all can help secure areas and prevent the enemy from surprising you when you least expect it. For instance, that nice sniping position on the cliff overlooking your camp is just begging to be mined. Prudent travelers and soldiers do more than just take turns standing watch during the night, they make sure that they're well protected where they're vulnerable and that anyone attempting to sneak up on them is detected and (preferably) eliminated. You shouldn't just rely on these devices, however, because clever scouts can learn to bypass them and surprise you. Also, remember where these systems are so you don't trip them.

IF IT LOOKS BAD, LEAVE ◇

If it doesn't look like you're going to win, get out of there pronto. As the saying goes, "He who runs away, lives to fight another day." If for some reason the opposition is greater than anticipated, it's best to leave and return with reinforcements, or to use another approach altogether (especially since the enemy is now aware of your attempt and will prepare accordingly). Only a fool stubbornly prolongs a battle which he will inevitably lose. (Incidentally, there are a lot of foolish gamers out there who think that if they fight long and hard enough, they'll win; they're dead fools, too.) Use your brains: get out alive, then return with more firepower or better tactics.

2.6

▶ DRAMATIC TACTICAL SYSTEM

Often enough, dedicated roleplayers find it distasteful or simply too bothersome to set up a space hex map and play the whole tactical fight using the standard tactical rules. Fast as the Silhouette system is, it requires a minimal amount of time to set up a battlefield, and that can break the mood of a game. The Dramatic Tactical System (DTS) presents itself as a no-hassle alternative to make dogfighting more interesting to roleplayers. It requires a little imagination and literally no setup time. You don't need maps and you only need miniatures if you want to illustrate the fight on a table and indicate relative positions of the participants. It is a clearly abstract system and purposefully oversimplifies several aspects of tactical combat to make life easier for anti-tactical roleplayers.

More specifically, in order to run combat faster, the movement phase has been almost completely replaced by the simple selection of the vehicle's speed (or thrust for space vehicles) and weapon's medium firing range. Everything else relies on Piloting or Gunnery checks, as usual. The main difference between the standard tactical rules and the DTS is that with the standard rules, the Player first moves, then decides what weapon he's going to use and figure out how far from his enemy he is; in the DTS, the Player first chooses what weapon he's going to use, then attempt to move successfully within that range through skillful piloting. Success or failure in doing so will affect his accuracy. Not exactly realistic, granted, but it speeds up game play.

2.6.1

▼ RANGE CONSIDERATIONS

One important aspect of tactical game play is the distance between machines. This is the principal reason why hex maps are used. In Dramatic Tactical System, however, range becomes secondary to accuracy, maneuvering and tactics, which give abstract combat a more visually appealing aspect.

Three ranges are important in any type of combat: a) the distance which the attacker can move during the round; b) the attacker's weapon range; and c) the distance defender can move to get out of range from the attacker. Furthermore, positioning is often crucial to gain a tactical advantage. To simulate this without the need of a tactical map, two attributes must be determined: the attacker's Offensive Range (OR) and the defender's Evasion Range (ER). An opposed Piloting test will determine if the attacking vehicle manages to properly position itself and establish a good lock on the enemy. The Offensive Range is equal to the attacking vehicle's current speed plus the selected weapon's range. The Evasion Range is equal to the defending vehicle's current speed (this is detailed later on).

2.6.2

▼ SEQUENCE OF EVENTS

The sequence of events is similar to the one used in the rulebook. Declaration and Initiative are done as usual. Activation itself is split between Lock On and Firing. Lock On is a test where the attacker tries to position himself to better shoot the enemy from the desired range. Firing is the standard attempt to gun the enemy down and is modified according to positioning. The last phase, Miscellaneous, also follows the standard rules from Jovian Chronicles.

▥ COMBAT SEQUENCE

Step One: Declaration Phase
Step Two: Initiative
Step Three: Activation (Lock On/Firing)
Step Four: Miscellaneous Events

◇ STEP ONE: DECLARATION PHASE

In normal tactical combat, Players have a visual situation to analyze and on which they can base their decisions. They can therefore select the option to Dodge before rolling for initiative. With the Dramatic Tactical System, however, they have no way to make that analysis, and selecting the option to Dodge prior to rolling initiative mostly hinders an enjoyable game play. At this point, the characters must declare any extra action they wish to take, but do not HAVE to state an intention to Dodge. If they do, the Dodge gives them a +3 through the round. If they declare a Dodge when they are about to be attacked for the first time in the round (during Step Three), the Dodge only gives them a +2 modifier. Note that it's only possible to declare a Dodge during another Step if the Player who declares it hasn't spent any action so far.

STEP TWO: INITIATIVE ◇

If the Player is alone, he makes a Piloting test with his enemies. The Player with the highest result will be activated first. Tied results are rerolled. If several Players are facing one or more enemies, the designated leader performs a Leadership test. The winning Player (or team) may activate one of his units first (see *Step Three* on page 30). Once that unit has "moved" and fired, the next Player (or team) with the highest initiative may activate one of his units. The activation sequence goes down the initiative list until everyone has activated one unit. This process is repeated until all participants run out of units to activate.

STEP THREE: ACTIVATION ◇

When a unit is activated, the Player selects the weapon he wants to use. The first part of the Activation phase is the Lock On. The Attacker states how many Movement Points or Thrust Points he wants to spend this round. These are added to the selected weapon's medium range. That gives the Offensive Range (OR). The Defender's current speed gives his Evasion Range (ER).

The difference between OR and ER gives a Lock-On distance which can be cross-referenced on the table below to obtain the Maneuvering Modifier. The opponents then need to perform a Piloting roll to determine who gets better positioning. The Maneuvering Modifier is applied to the Attacker's Piloting Roll versus the Defender. If the Attacker prefers, he may substitute his Tactics Skill to his Piloting Skill for the purpose of this particular roll, at no penalty. Every 2 points of MoS result in a +1 to the Attacker's Gunnery roll. Every 2 points of MoF result in a -1 to the Attacker's Gunnery roll. Just before the Gunnery test is made, however, the Attacker may optionally choose a special combat maneuver (see *Combat Maneuvers* on page 30) to get an additional advantage over the Defender (if you've never used the system before, however, you may want to forego that option until you've played with it a few times).

If the Attacker has multiple actions (say two, as if often the case in **Jovian Chronicles**), he doesn't have to maneuver a second time before firing again using the same weapon; the Accuracy Modifier remains the same. If he decides to change weapons or happens to Overkill an enemy before all his actions have been spent, he may choose to use his remaining actions against another opponent, if one is available. In that case, however, the Lock-On Distance and Maneuver Modifier must be determined from scratch.

ACTIVATION PROCEDURE ▥

•	Attacker chooses a weapon.
•	Attacker spends Movement Points (MPs) or Thrust Points (TPs).
•	Attacker adds weapon's medium range to MPs/TPs; that's the Offensive Range.
•	Defender's last expenditure of MPs or TPs becomes his Evasion Range.
•	The Lock-On Distance equals OR – ER; cross-reference in the Maneuvering Modifier Table below.
•	Roll the Attacker's Piloting Skill and compare it to a Piloting check for the Defender; use NO other modifiers.
•	Compare this to the Accuracy Modifier table below.
•	Optionally, the Attacker can select a combat maneuver (side, rear, surprise attack).
•	Use the resulting modifier on the Attacker's Gunnery roll. All standard vehicle Maneuver ratings and movement modifiers apply as usual. Resolve damage as usual.

MANEUVERING MODIFIER TABLE ▥

Lock-On Distance	Maneuvering Modifier
+32 to +63	+6
+16 +31	+5
+8 to +15	+4
+4 to +7	+3
+2 to +3	+2
+1	+1
0	0
-1	-1
-2 to -3	-2
-4 to -7	-3
-8 to -15	-4
-16 to -31	-5
-32 to -63	-6

INTRO WORLD SECTION

ACCURACY MODIFIER TABLE

MoS/MoF	Accuracy Modifier
+6	+3
+5	+2
+4	+2
+3	+1
+2	+1
+1	0
0	0
-1	0
-2	-1
-3	-1
-4	-2
-5	-2
-6	-3

◇ STEP FOUR: MISCELLANEOUS EVENTS

During this phase, any unusual events such as off-board attacks and special scenario-related events are resolved. Ejection rolls, wound checks and all general bookkeeping procedures should also be done here. Any action not spent at this point is lost.

Repeat steps 1 to 4 until the battle is resolved or pre-planned objectives are met. A combat group may only move once per combat round.

▼ COMBAT MANEUVERS

Not every pilot likes to fly his Exo "vanilla" style, without style and risk. Some make it a point to get cocky and try to totally outmaneuver their adversaries, sometimes putting their own lives at risk, not to mention that of their teammates. These pilots often try to get into some "blind spot," an area where the enemy vehicle is more vulnerable and less prone to properly defend itself (side, rear or "out of nowhere").

To simulate this, another roll is required just before the attack is rolled, but right after the Accuracy Modifier has been obtained. The Attacker selects what kind of maneuver he expects to pull (Side: -1 to the roll; Rear: -2 to the roll; Surprise: -3 to the roll). Both Attacker and Defender make an opposed Piloting test, modified for the Attacker by his choice of maneuver and his vehicle's Maneuver rating, and for the Defender by his vehicle's Maneuver rating and any bonus for dodging (+3 if he declared a Dodge at the beginning of the round, +2 if he decides to declare one now). If the Attacker gets a Margin of Success of +1 or better, the Defender will suffer the appropriate penalty on his defensive Piloting roll (see the table below).

It is also possible to make use of walking or saturation fire. Walking fire is done as usual, by splitting the ROF between so many targets (see **Jovian Chronicles Rulebook**, p. 157). Saturation fire requires some adaptation, however. The Attacker states his intention to saturate an area and rolls an opposed Tactics test against his opponent, with a -1 penalty to his roll for each extra target he hopes to "trap" within his fire. The Attacker also rolls a Gunnery test to determine the area's saturation threshold. Defenders who fail to beat the Attacker's roll must defend against the saturation threshold as usual. Ammunition is spent as usual.

⊞ ADDITIONAL COMBAT MODIFIERS

Attacker	
Multiple Actions	-1 to all rolls per additional action
Top Speed/Overthrust	-3 to Gunnery
Failed Side Attack	-1 to Gunnery and next initiative roll
Failed Rear Attack	-2 to Gunnery and next initiative roll
Failed Surprise Attack	-4 to Gunnery and next initiative roll
Defender	
Multiple Actions	-1 to all rolls per additional action
Multiple Attackers	-1 to defensive roll for each **attacker** (not attack) past the first
Successful Side Attack	-1 to defensive roll
Successful Rear Attack	-2 to defensive roll
Successful Surprise Attack	-4 to defensive roll

2.6.3

VEHICLES AS PROPS ▼

In order to further simplify combat and recordkeeping during roleplaying sessions, the GM may wish to reduce the various exo-armors, space fighters and ships piloted by enemies to the role of simple props. After all, a detailed two-page record sheet for a ship is cumbersome to use and only advantageous when playing a full tactical game, or when dealing with the heroes and their personal nemesis. In a roleplaying session, however, the grunt enemies should not have that advantage (the PCs are *supposed* to be the heroes, remember?). Also, since the GM is expected to run a fast game, he can't be bothered with heavy recordkeeping. The vehicle has to survive the shot or die.

In the case of exo-armors, exo-suits and fighters, simply roll a six-sided die when the vehicle takes a Light Damage or a Heavy Damage (the results for Overkill are pretty straightforward). If the die result for a Light Damage is 1, the vehicle is destroyed (or, more properly, out of the game). If the die result for a Heavy Damage is 1-3, the vehicle is destroyed. Otherwise, it survives unscathed — even its armor is not dented (so we don't have to keep track of damage and modifiers).

In the case of large ships, a bit of preparatory work is required. Every component of the ship (i.e. everything that isn't the main hull) is listed below the main hull statistics with its own Armor rating and a number of circles or boxes equal to the quantity of those components. For instance, a Javelin-class cruiser has two KKC turrets with 25 base Armor, so there would be two boxes listed, to be marked off as those systems are destroyed. Destroyed drive units cut the available thrust proportionally (for example, if one out of four drive units is destroyed, thrust drops by a quarter). When attacking a ship, the Attacker may select to attack the main hull or those components at no penalty. As with above, a Light Damage destroys a ship or component on a 1 on 1d6; a Heavy Damage destroys a ship or component on a 1-3 on 1d6.

SAMPLE COMBAT ▼

The Player Character (all Skills at Level 3) is using a Retaliator against three Venusian Ryus (all Skills at Level 2).

SAMPLE COMBAT VEHICLES ⊞

Vehicle	C. Spd	Armor	Maneuver	F. Cont.	Weap. Acc.	Weap. Dmg	Weap. Rng
Retaliator	12	26	0	0	0	x16	5/10/20/40
Ryu	11	25	+1	0	0	x12	3/6/12/24

SAMPLE ROUND ◇

Initiative: the Retaliator rolls 3, the Ryus roll respectively 5, 6 and 4, so they all activate before the Retaliator. Ryu #2 starts his attack. His OR is 17, the Retaliator's is 12, so that's a Lock-On Distance of 5; the resulting Maneuvering Modifier is +3. Both pilots roll their Piloting Skills: 2 for the Retaliator, 6 for Ryu #2 (a roll of 3, +3 for the Maneuvering Modifier). That's a MoS of 4, which means a +2 on the Ryu's Gunnery roll. Ryu #2 rolls his Gunnery, Retaliator rolls his Piloting: 7 for Ryu #2 (a roll of 5, +2 Accuracy Modifier) versus 5 for the Retaliator. That's a MoS of 2 for the Ryu, resulting in a damage of (2 x 12 =) 24, which is below the Retaliator's Armor. No damage. The Ryu does his second attack with the same +2 bonus: Ryu #2 rolls (5, +2 Accuracy Modifier) a total of 7 versus the Retaliator's 5. Same MoS, same "no damage" result.

Ryu #1 activates. His OR is 17 and the Retaliator's is 12. Those are the same bonuses as for Ryu #1 (+3 Maneuvering Modifier). Both pilots roll their Piloting Skills: 5 for the Ryu, 6 for the Retaliator, resulting in a -1 Accuracy Modifier for Ryu #1. Since it's the second attacker on the Retaliator, the latter is at -1 to its defensive Piloting rolls. Attacker's Gunnery vs. Defender's Piloting: 1 for the Ryu (roll of 1, -1 Accuracy Modifier) versus 4 for the Retaliator (roll of 5, -1 for second attacker penalty). No damage. Second attack: 5 (roll of 6, -1 Accuracy Modifier) versus 5 (roll of 6, -1 for second attacker penalty). Still no damage.

Ryu #3 activates, with the same Maneuver Modifier as its predecessors (+3). Pilots roll their Skills: 8 for Ryu #1 (roll of 5, +3 Maneuvering Mod.) versus 5, with a MoS of 3 resulting in an Accuracy Modifier of +1. The Retaliator is now at -2 to its defensive Piloting tests because Ryu #1 is the third attacker this round. Ryu #3 does its first attack: 4 (roll of 3, +1 Accuracy Mod.) versus the Retaliator's 4 (roll of 6, -2 for multiple attacker penalty). No damage. The Ryu does its second attack: 4 (roll of 3, +1 Accuracy Mod.) versus the Retaliator's 3 (roll of 5, -2 for multiple attacker penalty). The resulting damage is 12, which doesn't dent the Retaliator's Armor.

The Retaliator finally activates against Ryu #1. Its OR is 22, Ryu #1's ER is 11. That's a Maneuvering Mod of +4. Pilots test their Piloting Skills: Retaliator gets 10 (roll of 6, +4 Maneuvering Mod.) versus Ryu #1's 5. MoS of 5 yields an Accuracy Modifier of +2. First Retaliator attack: 8 (roll of 6, +2 Accuracy Mod.) versus Ryu #1's 5 (roll of 4, +1 Maneuver rating) That's a damage of (MoS of 3 times 16 for the weapon's damage multiplier =) 48, which is a Heavy Damage against the Defender's Armor of 22. The GM rolls 1d6 and gets a 2. Ryu #1 blows up. The Retaliator turns its gun towards Ryu #2. It's a new vehicle, so we should roll a new oppose Pilot test. The Maneuvering Mod. is the same (since the vehicles' stats haven't changed). Retaliator rolls 8, Ryu #2 rolls 4. That means a resulting +2 Accuracy Mod for the Retaliator. It does its last attack on Ryu #2: 7 versus 5, for a MoS of 2 and a damage of 32. Light Damage. GM rolls 1d6 and rolls 3. Ryu #2 survives unscathed (a "1" was needed on the die). Now that everyone has been activated, we move on to Round Two…

► CREATING LIVELY PEOPLE AND PLACES
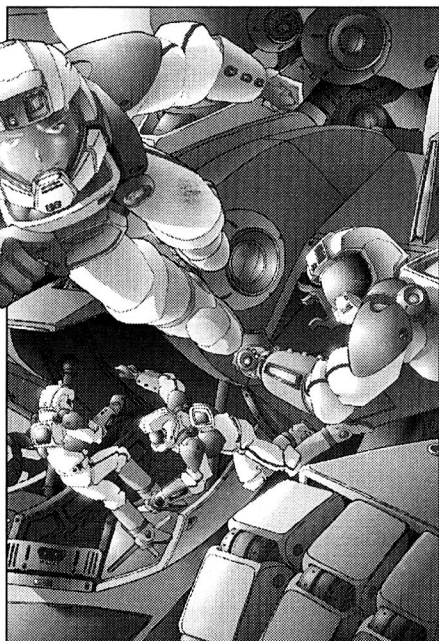
The art of description is very important in roleplaying games. The Gamemaster who merely describes a few vague characteristics about the environment, and mumbles a few hints about what is where and who is doing what, is hardly doing his job right. The Gamemaster is the Players' sole link to the world where the campaign is taking place. Anything the Player Characters see and hear and feel are conveyed through the GM's words. If he omits information, or just rely on platitudes and flat descriptions of the surrounding areas, the world will look flat and lifeless to the Players as well.

We receive an awesome multitude of sensory stimulii every day of our lives through our senses. Whenever possible, each one of them should be addressed for the Player Characters, just like in real life. Don't just give colors and images, describe the sounds, the smells and various textures of the environment where the PCs have set foot. In space, tell them what the compartment's pressure feels like, how the air tastes and how objects tumble about. Without going overboard on pointless detail, the Gamemaster must feed the Players; an excellent method is to generalize the scene description, then add one or two in-depth observations.

More than that, give actions to background characters. Take any scene in a movie. The extras are moving about, chatting, arguing or trading. They're doing something. So should your extras. Also mention the weather, the architecture, the "mood" of the area. All this will help you create a strong atmosphere for your Players.

▼ DESCRIBING THE WORLD

Roleplaying is, in many respects, very similar to method acting. Players find it easier to get into their character if the GM sets the right mood. Be evocative. Don't hesitate to change your tone of voice or speech patterns, or to create sound effects whenever appropriate. If you have the time, prepare character handouts: photographs, local maps, relevant illustrations from the books, etc. Also use mood music and lighting whenever possible. Nothing conveys the feel of a lonely deep space patrol like dimming the lights and putting on some eerie music. Oh the other hand, fast-paced aggressive music (heavy metal, industrial or grunge) makes for excellent background during combat.

◇ THE FIVE SENSES

Too many Gamemasters forget that the characters have more their eyes to tell them about their surroundings. Sounds, smells, tastes, textures, they can all be called on to provide a more detailed picture of the world. Often, it is possible to convey information more effectively through the senses, rather than bluntly telling the Players. Consider this: "the ship cuts its engines and stops accelerating. You float up." Now consider this description: "you feel a slight vibration through your feet. You have the strange impression that the wall in front of you is slowly sinking down, when suddenly the floor drops from under you." From these scattered but more dramatic information, the Player can easily infer that the ship has stopped, without ever having to tell him directly.

◇ ORDER, ORDER

Always start a new description by the most startling or glaring element. In real life, it is likely to be the one first noticed by a person, and will make the strongest impression. If the cabin is overheated because of a malfunction air recycler, describe the heat first, then the perspiration on the characters' skin, then (and only then) the slight whine of the defective recycler. Should the situation present a danger, or even just a hint of danger, keep it for last — the Players will immediately react to it and very likely miss any subsequent description.

◇ SPEECH

Because few GMs have artistic talent, they often rely on their voice to characterize their NPCs. It becomes important to know how to change your voice, your vocabulary and your topics based on which character you are impersonating. Pay attention to the origin of the character, what league he comes from, and what kind of accent he has. That should help you give the Players a hint about who they're dealing with. Vocabulary should help narrow down the possibilities: more educated people tend to show off their linguistic expertise by using long words, convoluted syntax, and literary expressions; less educated people just keep it straight and simple, and often make characteristic mistakes. The basic rulebook and the **Companion** describes the various languages in use by the various settlements.

DRAMATIC SETTINGS ▼

When the GM is short on time and doesn't have time to properly prepare the descriptions for the areas which the Players will visit, it's always useful to have a few pre-generated descriptions handy. Clever Gamemasters may want to keep them on small 5" x 8" cards with a mini-map for handy reference during the game. The texts below describe a short sample of stock locations and situations and should be adjusted to reflect the specifics of your campaign. They also provide a good example of descriptive techniques you can use for your own locations and of traditional "sets" for action sequences.

AIRLOCK ◇

The airlock is a small compartment, its polyplastic walls painted white with warning stripes along the heavy access doors. The interior is frigid, the heat leached away in the vacuum of space. Banks of infrared lights along the upper walls are struggling to warm the airlock as it gradually fills with air. The digital screen build into the surface of the wall displays the current pressure and temperature in ever-increasing glowing numerics and icons. As the numbers reach standard levels, the doors open with a "swoosh" of equalizing pressure.

AUTOMATED FACTORY ◇

The overwhelming sound of air-recycling machinery and conveyor belts forces you to shout to make yourself understood. You notice from a distance several technicians with safety earmuffs, floating away slowly or tethered near a machine, scribbling notes on some pad; they pay no attention to you. Narrow shielded accessways stretch around you, zigzagging between pillars of machinery and large pipes. Metal hatches lead to a series of air-conditioned, soundproofed offices on one wall, where foremen with their sleeves rolled up monitor production on large display screens.

CORPORATE OFFICE ◇

The large office exudes power and affluence. Large bay windows give a vantage view of the city. The executive desk, clean and tidy, is diagonally positioned near a corner, the room seemingly converging toward it. A small bar stands to its right and a computer station to the left. Diametrically opposed to the desk, a series of small couches and comfortable chairs surround a low round table, a section that is undoubtedly used to entertain a few important guests during private meetings.

DARK ALLEY ◇

The narrow street is barely lit by the lamplights at each end — the middle is dark and eerie, many shadows playing tricks with your eyes. You notice a bit of movement, then two shiny marbles pointed at you — a cat's eyes. It scurries rapidly when it notices you, fading into more shadows. You stand there for a few moments, peering into darkness, your ears picking no more than the sound of dirty water trickling down moisture trap drainpipes. The city in the background continues its murmur, indifferent to your situation.

INSIDE THE COLONY ◇

Your stomach churns slightly as the transport comes out of the spaceport's inner airlock and begins its slow but constant descent toward the "floor" of the colony cylinder. To your eyes, you are suspended above a weird and gigantic well that extend for kilometers under you, and yet you do not fall. The glaring arc of the sunline shines above your head, but the polarized ceiling of the car prevents it from affecting the visitors' vision. As the vehicle progresses along its maglev tracks, the view seems to tip over as gravity reasserts itself on your inner ear. What is now the ground becomes more detailed as well: what you first thought to be a spot of weird geometric forms on the distant wall resolves itself into a small village tucked at the bottom of the cylinder's endcap slope.

INTERCYLINDER TRANSPORT CAR ◇

The car station is somewhat claustrophobic, its low ceiling reminding all visitors of their current location within the thick hull of the colony cylinder. The crowd moves in orderly lines, their luggage already on its way to the cargo section, several security agents with white gloves answering questions and pointing to the right directions. The air vibrates as powerful recyclers prepare to remove the atmosphere from the departure bay. The shrill of a safety klaxon pierces the air, announcing the last five minutes before departure.

WHITE ROOM ◇

The locker room is brightly light by banks of fixtures along the walls and ceiling. Space suits hang in their recharge lockers, looking very much like shed skins carelessly left behind by their owners. Stored helmets, carefully attached above, stare at you with their empty polarized eyes. The room smells faintly of sweat, only half-covered by a chemical disinfectant. On one side, the heavy doors of the main airlock stand closed, the indicators showing it to be in use.

▼ EVENT TRACKING SPREADSHEET

EVENT NAME:	DATE:	GAME SESSION #:

▼ EVENT SYNOPSIS:

▼ ALLIES

NAME	INTERVENTION

▼ OPPONENTS

NAME	INTERVENTION

▼ LOOSE THREADS:

▼ BACKGROUND WORLD EVENTS

DATE	LOCATION	EVENT OF NOTE

▼ CHARACTER SUBPLOTS

DATE	CHARACTER INVOLVED	DETAILS

▼ UNBEKNOWNST TO THE PLAYERS...

DATE	WHAT HAPPENS

▼ CAMPAIGN CHECKLIST

CAMPAIGN TITLE:

▼ REALITY FACTOR:

GRITTY	DEADLY, HARSH WORLD, WITH LITTLE ROOM FOR HEROES
ADVENTURE	ACTION-PACKED, BELIEVABLE STORIES, CHARACTERS AND FEATS
CINEMATIC	OUTRAGEOUS ACTION WITH LARGER-THAN-LIFE CHARACTERS AND STUNTS

▼ GAME STYLE:

ACTION	EMPHASIS ON ACTION, COMBAT AND CHASE SCENES
INTRIGUE	EMPHASIS ON POLITICS, PUZZLES AND DECEPTION

▼ BEST CHARACTER TYPES:

▼ CAMPAIGN THREAD:

▼ MAIN OPPOSITION:

▼ MAIN ALLIES:

▼ CHARACTER CHECKLIST

CHARACTER NAME:

▼ TYPE

(HIGHLIGHT ONE)	LEAD	SUPPORTING	EXTRA

▼ NATURE

(HIGHLIGHT ONE)	ALLY	INDEPENDENT	ENEMY

▼ SELF   ▼ FACADE

▼ MOTIVATION   ▼ SCHTICK

▼ QUIRKS   ▼ RESOURCES

▼ PLAYER CHARACTER PERSONALITY WORKSHEET

NAME:	NATIONALITY:
OCCUPATION:	CITY-STATE:
DATE OF BIRTH:	GENDER:
HEIGHT:	WEIGHT:
HAIR COLOR:	EYE COLOR:

▼ PHYSICAL DESCRIPTION:

▼ WHERE DID YOU GROW UP?

▼ WHO ARE YOUR PARENTS?

▼ WHO ARE YOUR SIBLINGS?

▼ WHAT IS YOUR SOCIAL STANDING?

▼ WHY DO YOU DO YOUR CURRENT OCCUPATION?

▼ LIFE GOALS	▼ FEARS/PHOBIAS

▼ TURN ONS	▼ TURN OFFS

▼ GREATEST QUALITIES	▼ GREATEST FLAWS

▼ HOBBIES	▼ PERSONAL SECRETS

▼ BEST FRIEND(S)	▼ WORST ENEMY(IES)

▼ INTELLECT (TABLE 1)	▼ ROMANCE (TABLE 6)

▼ RELIGION (TABLE 2)	▼ BRAVERY (TABLE 7)

▼ POLITICS (TABLE 3)	▼ TEMPERAMENT (TABLE 8)

▼ WEALTH (TABLE 4)	▼ FACADE (TABLE 9)

▼ MORALITY (TABLE 5)	▼ SELF (TABLE 10)
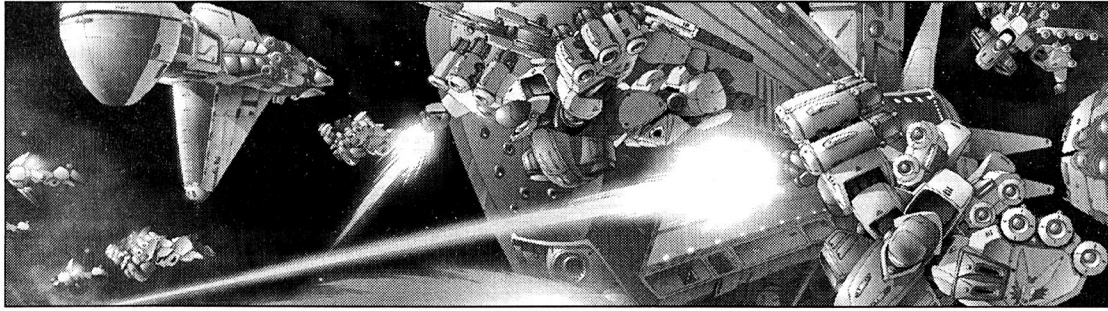
▼ TABLE 1: INTELLECT

ROLL 1D6	1-2	3-4	5-6
1	GULLIBLE	SKEPTICAL	DREAMING
2	METHODICAL	INQUISITIVE	LOGICAL
3	ANALYTICAL	AVERAGE	BRILLIANT
4	SCHEMING	DENSE	STUDIOUS
5	CURIOUS	PRECISE	DULL
6	IMAGINATIVE	RESOURCEFUL	ACTIVE

▼ TABLE 2: RELIGION

ROLL 1D6	1-2	3-4	5-6
1	SAINTLY	REBELLIOUS	INQUISITIVE
2	CONTEMPTUOUS	CYNICAL	PIOUS
3	RESPECTFUL	PROFANE	HUMBLE
4	IMPIOUS	OBEDIENT	BLASPHEMOUS
5	FANATICAL	IRREVERANT	PRACTICAL
6	INDIFFERENT	VIRTUOUS	ATHEIST

▼ TABLE 3: POLITICS

ROLL 1D6	1-2	3-4	5-6
1	LIBERAL	REFORMIST	DEMOCRATIC
2	REVOLUTIONARY	ANARCHIST	ARISTOCRATIC
3	AUTOCRATIC	COMMUNIST	CONVERVATIVE
4	REPUBLICAN	MERCANTILIST	ELITIST
5	SOCIALIST	PROGRESSIVE	REACTIONARY
6	REBELLIOUS	FACIST	ROYALIST

▼ TABLE 4: WEALTH

ROLL 1D6	1-2	3-4	5-6
1	GENEROUS	SPENDTHRIFT	COVETOUS
2	DISORDERED	POSSESSIVE	WASTREL
3	CARELESS	RAPACIOUS	SELFISH
4	GREEDY	SENSIBLE	ANALYTICAL
5	AVARICIOUS	BUSINESSLIKE	RESPONSIBLE
6	MISERLY	LUCKY	THIRFTY

▼ TABLE 5: MORALITY

ROLL 1D6	1-2	3-4	5-6
1	INSPIRED	RESPONSIBLE	DECEITFUL
2	LUSTFUL	LIAR	SCRUPULOUS
3	INDECISIVE	SLY	VIRTUOUS
4	IMPRESSIONABLE	UNFORGIVING	IMMORAL
5	ADVENTUROUS	HONORABLE	NAIVE
6	TRUTHFUL	INDUSTRIOUS	REPREHENSIBLE

▼ TABLE 6: ROMANCE

ROLL 1D6	1-2	3-4	5-6
1	MYSTERIOUS	CHARMING	BLUSTERING
2	DELUSIONAL	AMOROUS	ROMANTIC
3	WITTY	FLIRTATIOUS	IMPOSING
4	INGRATIATING	SEDUCTIVE	OVERBEARING
5	PRUDENT	GLAMOROUS	NAIVE
6	GULLIBLE	PASSIONATE	RECKLESS

▼ TABLE 7: BRAVERY

ROLL 1D6	1-2	3-4	5-6
1	JOKER	BRAVE	BOLD
2	FEARLESS	COMPETITIVE	IMPUDENT
3	DAREDEVIL	FOOLHARDY	MERCILESS
4	COWARDLY	TIMID	DECEPTIVE
5	PRUDENT	ADVENTUROUS	CRAVEN
6	CALCULATING	RASH	RECKLESS

▼ TABLE 8: TEMPERAMENT

ROLL 1D6	1-2	3-4	5-6
1	DEPRESSED	JOLLY	STUBBORN
2	RESIGNED	UNFORGIVING	HEADSTRONG
3	TACITURN	OPTIMISTIC	SOBER
4	VAIN	SUSPICIOUS	SOLITARY
5	ARROGANT	HUMBLE	BITTER
6	EASYGOING	SELFISH	PESSIMISTIC

▼ TABLE 9: FACADE

ROLL 1D6	1-2	3-4	5-6
1	OPINIONATED	GENTLE	HELPFUL
2	LOYAL	CHEERFUL	INSENSITIVE
3	PLAYFUL	SHY	ALOOF
4	COMPASSIONATE	MISCHIEVOUS	MOROSE
5	HELPFUL	COURTEOUS	SILENT
6	RUDE	BLUNT	TRUSTING

▼ TABLE 10: SELF

ROLL 1D6	1-2	3-4	5-6
1	INNOCENT	HEDONIST	DIPLOMATIC
2	PROUD	NAIVE	BIGOTED
3	UNCERTAIN	RESOURCEFUL	COMPASSIONATE
4	VENGEFUL	EXACTING	PESSIMISTIC
5	OPTIMISTIC	AUTHORITATIVE	INDULGENT
6	UNSCRUPULOUS	HAGHTY	ALTRUISTIC

QUICK CHARACTER GENERATION REFERENCE

▥ CHARACTER AND SKILL POINTS AVAILABLE

	Joe Average	Player	Major NPC
Gritty Game	10 CP/20 SP	20 CP/30 SP	30 CP/40 SP
Adventurous Game	10 CP/20 SP	30 CP/40 SP	50 CP/60 SP
Cinematic Game	10 CP/20 SP	50 CP/60 SP	70 CP/80 SP

▥ ATTRIBUTES

Attribute	Description	Mass for BLD	CP Cost
+5	Superhuman	180 kg	-
+4	"I'm sure I've seen you on Trideo!"	135 kg	25
+3	Exceptional	115 kg	16
+2	Superb	95 kg	9
+1	Good	80 kg	4
0	Average	70 kg	1
-1	Poor	60 kg	0
-2	Pathetic	50 kg	+1*
-3	Hopeless	40 kg	+4*
-4	Beyond Hopeless	35 kg	+9*
-5	"Why aren't you dead yet?"	30 kg	+16**

* The plus value is added to available CPs instead of being subtracted. / **May only be attained by Light Worlders and ZeGees.

▥ SKILLS

Skill Level	Simple Skill Cost	Complex Skill Cost	Minimum Attribute
1	1	2	-1*
2	4	8	0
3	9	18	+1
4	16	32	+2
5	25	50	+3
6	36	72	+4
7	49	98	+5
Specialization	5	5	n/a

* If Attribute is less than -1, level one can be purchased at double cost. / Refer to Screen for complete Skill listing.

▥ SECONDARY TRAITS FORMULAS

Strength	(BLD + FIT) ÷ 2 (round towards zero)	Flesh Wounding Score	STA ÷ 2 (round up)
Health	(FIT + PSY + WIL) ÷ 3 (round off)	Deep Wounding Score	STA
Stamina	25 + 5 x (BLD + HEA) (minimum 10)	Instant Kill Score	STA x 2
Unarmed Damage	4 + HTH Skill + STR + BLD (min 1).	System Shock	5 + HEA (min 1)
Armed Damage	4 + Melee Skill + STR + BLD (min 1)		

▥ SPECIAL OPTION: OFF-WORLD CHARACTERS

	Home Gravity	Average Height	Free Skills
Light Worlders	0.1 to 0.8 g	Male 1.90 m/Female 1.80 m	Survival (Space) 1
ZeGees	0.1 g or less	Male 1.95 m/Female 1.90 m	Zero-G Movement 1, Survival (Space) 1

▥ OFF-WORLD CHARACTERS ATTRIBUTE LIMITS

Type	AGI	APP	BLD	CRE	FIT	INF	KNO	PER	PSY	WIL
Light Worlders	-3/+5	-	-5/+3	-	-5/+3	-	-	-	-	-
ZeGees	-3/+5	-	-5/+2	-	-5/+3	-	-	-3/+5	-	-

AGI to WIL indicate the minimum and maximum values of the Attribute in question.

CHARACTER PERKS (OPTIONAL)

Name	Cost	Name	Cost
Accelerated Healing	4	Machine-Touch	4
Accute Sense	2 per sense (choose one)	Night Vision	3
Ambidextrous	1	Photographic Memory	2 per point
Animal Companion	1-4 depending on the usefulness of the animal	Property	3 to 9; see JC Companion page 25
Animal Kinship	2	Quick Learner	2
Authority	3	Radiation Resistance	2
Connections	3 to 7 per ally, 1 to 5 per contact	Rank	0 to 12; see Companion page 26
Fake Identity	3 per Fake Identity	Sense of Direction	2 for 2D, 3 for 3D
Famous	2 to 7 depending on the degree of fame.	Strong Immune System	3
Favor	1 to 5; see JC Companion page 25	Subordinates	2 to 5 each, depending on power and loyalty
Influence	2 to 6 depending on the scope and power	Thick-Skinned	5
Light Sleeper	3	Wealthy	1 to 3 per level; see JC Companion page 27
Lucky	8		

CHARACTER FLAWS (OPTIONAL)

Name	Cost	Name	Cost
Addiction	Addiction or Dependence Rating + 3 (round up)	Liar	-1, -5 if mythomaniac
Allergy	-1 for a mild allergy, -3 for a severe one	Mechanical Inaptitude	-1
Age	-4 (young), -2 (old)	Nemesis	-2 to -5 depending on power and frequency
Amnesiac	-4	Obligation	-1 to -3 depending on severity and frequency
Animal Antipathy	-2	One-Armed	-2, -5 if permanent
Bad Luck	-5	Paranoid	-3
Beliefs	-1 to -3 depending on the nature of the belief	Phobia	-2 for Mild, -4 for Severe; -1/-3 for uncommon Phobia
Blind	-8 if permanent, -2 if removable	Poor	-2
Bloodlust	-4	Poor Sense	-2 per sense (choose one)
Code of Honor	-1 to -4 depending on depth of the code	Quirk	-1 per Quirk (max. -2)
Criminal Background	-1 to -2 depending on the severity of the crime	Radiation Vulnerability	-2
Curse	-2	Secret	-2 to -3 depending on the gravity of the secret
Deaf	-7, -2 if removable	Sick	-1 to -7 depending on how severe, fatal and debilitating
Debt	-1 to -5; see JC Companion page 28	Slow Healing	-4
Dedicated	-1 to -3 depending on the demands of the dedication	Slow Learner	-2
Dependent	-1 to -4; see JC Companion page 29	Social Stigma	-1 to -3 depending on the severity of the stigma
Flashbacks	-2	Space Sickness	-1 per point
Goal	-3	Split Personality	-7
Heavy Sleeper	-1	Thin-skinned	-4
Infamous	-1 to -4 depending on severity and expanse	Wanted	-1 to -5 depending on power and frequency
Insomniac	-1	Weak Immune System	-3
Lame	-6 if permanent, -2 if removable		

APPENDIX
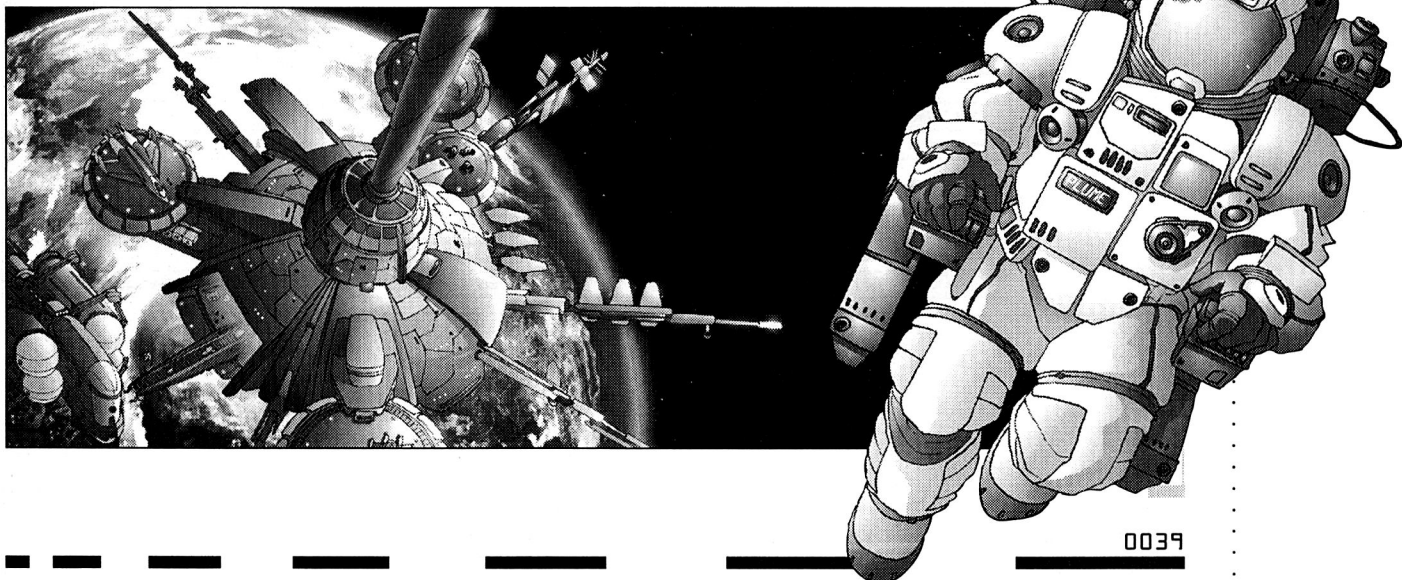
► MECH. DESIGN QUICK REFERENCE SHEET

⊡ SIZE, MASS AND VOLUME

•	Maximum Mass = ((Size + 0.5) x 3) cubed
•	Size = ((cube root of Maximum Mass)/3) - 0.5
	Maximum mass for all Size levels is in kilograms (divide by 1000 for metric tons). Mass is rounded up for simplicity.
•	(Optional) Basic volume (in m³) = (Size/2 +1) cubed, rounded up Add cargo space.
•	(Optional) A crewmember occupies about two cubic meters of space.

⊡ ARMOR RATING

	Minimum	No Armor	Light Armor	Moderate Armor	Heavy Armor
Armor Rating	1	Size x 1	Size x 2	Size x 2.5	Size x 3

⊡ MOVEMENT SYSTEMS

Movement Types	Flight, Ground, Hover, Naval, Rail, Space, Submarine, Walker
Top Speed	Top Speed (in kph) is divided by six (6) to get Movement Points (MPs); round to nearest whole number
Combat Speed	Top Speed MPs divided by half; round up
Special Case: Flight	Air Combat MPs represent 30 kph instead of 6 kph. Flight movement type must have a Stall Speed
Special Case: Space	Space MPs represent 1 m/s² each (0.1 g). Fractional MPs are possible

⊡ REACTION MASS

RM Type	Weight Multiplier	Volume per Weight
Hydrogen	0.00001 x total BP	0.071 ton/m³
Helium-3	0.00002 x total BP	0.142 ton/m³
Water	0.0002 x total BP	1 ton/m³
High Efficiency Rocket Fuel	0.01 x total BP	2 ton/m³
Low Efficiency Rocket Fuel	0.05 x total BP	5 ton/m³

Empty weight of craft x Weight Multiplier = Weight of reaction mass / Weight of Reaction Mass is added to final weight of vehicle after design is completed; no change to acceleration

⊡ OFFENSIVE SCORE

WEAPON ARCS AND SPECIAL SYSTEMS	
Weapons with FF arc = Weapon Cost x 0.6	Cost of Weapon Link = 10% of total cost of all linked weapons
Weapons with T arc = Weapon Cost x 1.8	Cost of Sniper System = 10% of total cost of all sniped weapons
Weapons with ST arc = Weapon Cost x 1.5	Cost of Air/Ground System = 10% of total cost of all dual-function weapons
Punch Rating = (Damage Multiplier of arm x 0.5) squared	

OFFENSIVE MULTIPLIER IS EQUAL TO THE SUM OF THE FOLLOWING:	
•	Costs for all Weapons (modified for fire arcs)
•	Ammunition costs for all weapons
•	Cost of Special System, if present (Link, Sniper, Air/Ground)
•	Punch rating for each arm (if applicable)

TARGETING MULTIPLIER					
Fire Control	Multiplier	Fire Control	Multiplier	Fire Control	Multiplier
+5	700	+1	2	-3	0.25
+4	120	0	1	-4	0.2
+3	24	-1	0.5	-5	0.167
+2	6	-2	0.333		
•	OFFENSIVE SCORE = TARGETING SYSTEM MULTIPLIER * X OFFENSIVE MULTIPLIER				

DEFENSIVE SCORE ⚏

THE DEFENSE MULTIPLIER IS EQUAL TO THE SUM OF THE FOLLOWING:

- (Armor Rating) squared
- *Flying Vehicle: ((Flight Speed - Stall Speed) in kph ÷ 125) cubed
- *Others: (fastest movement speed in kph ÷ 25†) cubed
- (sum of speeds of all other movement types in kph ÷ 6) squared
- (Space acceleration, in MP) squared

MANEUVER MULTIPLIER

Maneuver	Multiplier	Maneuver	Multiplier	Maneuver	Multiplier
+3	9	-2	0.5	-7	0.222
+2	3	-3	0.4	-8	0.2
+1	1.5	-4	0.333	-9	0.182
0	1	-5	0.286	-10	0.167
-1	0.667	-6	0.25		

- **DEFENSIVE SCORE = MANEUVER MULTIPLIER* X DEFENSE MULTIPLIER**

*If the vehicle has the **Flight** movement system, use the first line marked. Otherwise, use the second. / †Ground movement-only vehicles divide the speed by 40. Rail movement-only vehicles divide the speed by 60.

MISCELLANEOUS SCORE ⚏

The Miscellaneous Score is equal to the sum of the following*:

- (Total Actions) cubed
- (Communication Range in km ÷ 10) cubed
- (Sensor Range in km ÷ 2) cubed
- (Deployment Range in km ÷ 50) squared
- (Burn Points ÷ 100) squared
- (Sensor Rating + Communication Rating) squared**
- (Perk Point Total) squared - (Flaw Point Total) squared

*The Miscellaneous score has a minimum value of zero; / **If both values are negative, the square becomes a negative value.

THREAT VALUE ⚏

- Threat Value = (Offensive Score + Defensive Score + Miscellaneous Score) ÷ 3

DEFAULT SIZE AND COST ⚏

- Default Size = Cube Root (Final Threat Value)
- Default Cost (in Credits) = (Final Threat Value) x 1000
- Pre-Production Cost = Default Cost x (Default Size ÷ Actual Size)

PRODUCTION TYPE AND FINAL COST ⚏

Model Type	Definition	# Available	Model Dice	Ind. Dice	Prod. Cost Mult.
Testbed Prototype	New Tech	1-3	12	2	x100
Early Prototype	New Model	1-5	8	1	x20
Late Prototype	New Model	1-10	4	1	x5
Early Production	New Release	5-100	3	3	x1
Limited Production	High End Model	5-500	1	2	x2
Mass Production	Common Model	100+	2	3	x0.5
Scratch-Build	Patchwork Mess	1	N/A	10	x0.2
		FINAL COST = PRE-PRODUCTION COST X PRODUCTION COST MULTIPLIER			

▶ PERKS AND FLAWS QUICK REFERENCE

⬚ VEHICLE PERKS

Perk		
Ablative Armor	R	Rating/2 (per defense arc)
Acceleration Protection	-	1
Advanced Controls	-	Special: add one to Crew Actions
Airdroppable	-	4
Airlift Ready	-	1
Airlift Winch	AUX, R	Rating
Ammo/Fuel Containment System	-	4
Ammo Storage	-	1 per 20 TV points of ammo (round up)
Amphibious	AUX	3
Aquatic Sensors (aquatic; dual)	AUX	2; 2 + 1/2 range in km of aquatic sensors
Autopilot	AUX	5
Backup Communications	-	2
Backup Fire Control	-	5
Backup Life Support	-	2
Backup Sensors	-	5
Backup Systems	-	12
Battle Arm	R	0.2 x Rating for each arm
Cargo Bay (Enclosed)	-	cube root (volume in m³)
Cargo Bay (Open)	-	cube root (surface in m²) ÷ 10)
Catapult	AUX R	Rating
Computer (Flexible)	R	(Rating²) x Att. Mult. (JCC page 114)
Computer (Hardwired)	R	0.5 x (Rating²) x Att. Mult. (JCC page 114)
Counter-Battery Sensor	AUX, R	4 + Rating
Decoy System (visual; sensor; both)	AUX, R	Rating; Rating; Rating^2
Diving Wings	-	2
Easy to Modify	-	2 per subassembly; 9 for vehicle
Ejection System (seats; pods)	AUX	(Crew actions); (Crew Actions) x 2
ECM	AUX, R	Rating x 2
ECCM	AUX, R	Rating x 2
Emergency Medical	-	1 x crew actions, 0.1 x passengers
Emergency Power Surge	AUX, R	Rating squared (JCC page 115)
Fire Resistant	-	8
Fuel Efficient	-	2 for 1.5x Range, 4 for 2x, 8 for 3x
Glider	-	2
Gun Ports	-	1 (one-third crew), 2 (half the crew)
Haywire Resistant	-	10
HEAT Resistant Armor	AUX	Rating
High Towing Capacity	-	5 (double) or 15 (triple)
Holofield	AUX R	Rating x 2
Hostile Environment Protection	-	Desert: 1, Extreme Heat: 4, Extreme Cold: 1, High Pressure: 4, Extreme Pressure: 10, Underwater: 2, High Gravity: 1, Vacuum: 1, Radiation: Rating, All (except Rad): 12
Improved Off-Road Ability	-	9
Improved Rear Defense	-	10
Laboratories	AUX, R	5 + (10 x Rating) per lab
Large Doors	-	1
Life Support (Limited; Full)	AUX	1 x crew actions; 3 x crew actions
Lighter-Than-Air	-	2 (standard); 4 (self-sealing)
Low Profile	-	2
Loudspeakers	AUX	1
Manipulator Arm	R	0.5 x Rating for each arm
Mining Equipment	AUX	5 (Light Duty), 20 (Heavy Duty)
NOE Flyer	-	7
No Fuel Required	-	10 (permanent), 6 (can be cut off)
Passenger Accommodations (military; luxury)	-	cube root (volume in m³); same, x 2

▷ VEHICLE PERKS

Passenger Seating	-	square root (3 x passengers)
Pintle Mount	-	free (cost of weapon is added to OS)
Ram Plate	-	4
Reentry System	AUX	4 per single use; 8 for permanent feature
Refueling Equipment	-	2 per boom, 1 for receiving equipment
Reinforced Armor	R	Rating (per arc of defense)
Reinforced Chassis	-	6
Reinforced Crew Compartment	-	4
Reinforced Location Armor	R	0.5 x Rating, rounded up (per location)
Rugged Movement Systems	-	5
Satellite Uplink	AUX	10
Searchlight	AUX	0.25 per 50 m (fixed); 0.75 per 50 m (swivel)
Sick Bay	-	2 x maximum number of patients
Stealth	AUX, R	Rating x 3
Stratospheric Flight	-	8
Streamlining	-	2
Target Designator	AUX	5 + Base Range in hexes
Tool Arm	R	0.3 x Rating for each arm

VEHICLE FLAWS ▥

Annoyance	-	-0.2 per Annoyance
Brittle Armor	-	-10
Cannot Glide	-	-4
Decreased Maneuver	R	-(Rating x 2)
Defective Sensors	R	-Rating
Defective Fire Control	R	-Rating x 2
Difficult to Modify	-	-1 per subassembly; -5 for vehicle
Exposed Auxiliary Systems, Exposed Crew Compartment	-	-5
Exposed Fire Control Systems	-	-4
Exposed Movement System	-	-5
External Power	AUX	-2
Extreme Overheating	-	-10
Fragile Chassis	-	-5
Fuel Inefficient	R	-Rating
Hazardous Ammo/Fuel Storage	-	-5
HEAT Vulnerable	R	-Rating
Highly Flammable	-	-7
Inefficient Combat Computer	-	-4
Inefficient Controls	-	-9
Large Sensor Profile	R	Rating x -2
Maximum Ceiling, Maximum Climbing Angle	R	Rating x -1.5; Rating x -3
Muscle-powered	-	-5
Missing Systems	-	Communication -5, Engine -2, Sensors -6
One Way Communication	-	-2
Overheating	-	-5
Partially Exposed Crew	-	-5 x (Crew Exposed ÷ Crew), round off
Problem-prone	-	-1 per additional Lemon die
Poor Off-Road Ability, Poor Towing Capacity	-	-1
Random Shutdown	AUX	-0.5 x Rating
Requires Airstrip	-	-5
Sensor Dependent	-	-6
Trackable Emissions	R	-Rating x 3
Unstable	-	-2; -5 for aircraft
Vulnerable to Haywire Effects	-	-5
Weak Facing	-	-(0.25 x base Armor) per defensive arc
Weak Point	R	-0.5 x Rating, rounded down
Weak Underbelly	-	-0.2 x base Armor

▶ SYSTEM DESIGN QUICK REFERENCE SHEET

⬚ CHARACTERISTICS

Name	General Mult.	Weapon Mult.	Ammo Mult.
Adhesive	-	-	x 5
Airborne Torpedo	-	-	x 1
Anti-Infantry	-	x (1 + 0.1 x DM)	x 10
Aerosol	-	-	x 1
Anti-Missile	-	x (1 + 0.5 x DM)	-
Anti-Structure	-	-	x 1
Area Effect	-	x AE Multiplier (**JCC** page 125)	x 15
Armor-piercing	x 5	-	-
Armor-crushing	x 2	-	-
Attenuating Damage	none — AD number is subtracted from DM		
Biological	-	-	x 12 (semi-lethal), x 15 (lethal)
Boosted Accuracy	-	-	x 20
Boosted Damage	-	-	x 15
Boosted Range	-	-	x 20
Chemical	-	-	x 30
Clumsy	-	x 0.5	-
Concealed	-	x 2 (one action), x 3 (no action)	-
Defensive	x 0.5	-	-
Disintegration	x 100	-	-
Energy-homing	x 3	-	x 10
Entangle	x 2; x (2 + 1 per BR); x0.5 (no damage)	-	x 10
Fragmentation	-	-	x 15
Fire-Fighting	-	-	x 1
Flicker	x 1 - (0.1 x Rating)	-	-
Gravitic	x 3 (single-function), x 5 (dual-function)	-	-
Guided	x 3	-	x 20
Haywire	x 2	-	x 15
Heavy	-	x 0.75	-
Illumination	x 1.5	-	x 1
Incendiary	x 0.75	-	x 10
Indirect Fire	-	x 1.5	-
Infinite Use	x 5 (Ranged), x 1 (Melee)	-	-
Limited Use (LU)	x LU Multiplier (**JCC** page 128)	-	-
Liquid	x 0.75	-	-
Location-specific	x 3 (per location)	-	-
Mass Destruction	-	-	x 100,000
Minelayer	-	-	x 15
Minimum Range	-	x 1 - (0.1 x (Min. Range ÷ BR))	-
Missile	x 1	-	x 1
Non-Lethal	-	-	x 1
Paint	-	-	x 1
Parry	x 1.5 (against same), x 2 (against all)	-	-
Persistent	x 3	-	-
Power-hungry	x (1/square root of PH)	-	-
Random	1.05 - (0.05 x Rating)	-	-
Recoil	-	x 0.8	-
Redundant Systems	-	x 1.5 (per icon)	-
Scatter	x 1.5	-	-
Seeking	x (1 + 2 per add. roll); x (number of turns)^2	-	-
Self-Destruct	x 0.2	-	-
Shield	x 6	-	-
Shield (Energy)	x 2 (stops one type), x 5 (all), x 1.5 (weapon fire)	-	-
Slow	-	x (0.25 +1/Rating)	-
Smart	x (2 + Rating)^2	-	-

▷ CHARACTERISTICS CONTINUED

Smoke	-	-	x 1
Smoke/Black Fog	-	-	x 5
Stealth	x 1.5	-	-
Subroc	-	-	x 1
Time Delay	-	x 0.5 (pre-det. time), x 2 (remote)	-
Transorbital	-	x 10	-
Underwater	x 1 (underwater only), x 2 (both)	-	-
Unreliable	-	x (1 - (0.03 x Rating))	-
Wide Angle	x WA Multiplier (**JCC** page 132)	-	-
Winch	x 2	-	-

WEAPON AND AMMUNITION COST ▯

Ranged Weapon Base Cost:	Accuracy Multiplier x ($(DM)^2$ + (BR in hexes)^3 + ROF cost)
Melee Weapon Base Cost:	Accuracy Multiplier x ($(DM \div 2)^2$ + ROF cost)
	If ROF = 0, ROF cost = 0
	If ROF ≥ 1, ROF cost = $(0.5 \times (DM + ROF))^2$
Ammunition Base Cost (per shot):	(Base Weapon Rating w/o ROF bonus ÷ 250)
Modified Weapon Cost:	Base Cost is multiplied by any "General" or "Weapon" Characteristic
Modified Ammunition Cost:	Base Cost is multiplied by any "General" or "Ammunition" Characteristic

ACCURACY MULTIPLIER ▯

Accuracy	Multiplier	Accuracy	Multiplier	Accuracy	Multiplier
+5	180	+1	1.5	-3	0.4
+4	36	0	1	-4	0.333
+3	9	-1	0.667	-5	0.286
+2	3	-2	0.5		

FINISHING TOUCHES ▯

Standard Weapon Minimum Size:	cube root (Weapon Rating/2)
HEAT-based Weapon Minimum Size:	(cube root (Weapon Rating/2)) x 0.75
Final TV Cost:	(Current Weapon Cost x Old Required Size) ÷ Desired Smaller Size
Weapon's Mass (Optional):	lowest mass in equivalent Size bracket, divided by 10
Ammunition Mass per shot (Optional):	(Weapon's Mass) divided by 100 (10 if Missile)
Ammunition Volume per shot (Optional):	(Ammunition Mass) squared

MAXIMUM AMMUNITION LOAD ▯

Weapon's Base	Difference between vehicle's Size and Weapon's Minimum Size					
Minimum Size	0	1	2	3	4	5
1	625	2500	10,000	40,000	160,000	640,000
2	80	320	1280	5120	20,480	81,920
3	25	100	400	1600	6400	25,600
4	10	40	160	640	2560	10,240
5	5	20	80	320	1280	5120
6	3	12	48	192	768	3072
7	2	8	32	128	512	2048
8 to 9	1	4	16	64	256	1024
10 to 19	1	3	9	27	81	243
20+	1	2	4	8	16	32

OPTIONS ▯

Hand-held, Multi-Function, Mated, or Split Weapon:	See page 135 of the Companion for rules

▶ PLANETARY EPHEMERIDES 2210-2212

The Jet Propulsion Laboratory's Internet ephemeris system, Horizons, was used to generate the ephemerides (orbital data) for the planets for the period 2210 to 2212. Horizons uses JPL's pre-integrated orbital data for its calculations; the two ephemerides it currently uses are JPL's most recent efforts, DE405 and DE406. DE405 is of higher resolution than DE406, but only covers the dates up to February 20, 2200. DE406 is slightly less precise, but just as accurate, as DE405, and covers the years between 3000 BCE and 3000 CE. The underlying planet/satellite ephemerides and small-body osculating elements are the same ones used at JPL for radar astronomy, mission planning, and spacecraft navigation.

For our purpose, we will use only partial data and truncate the nearly sixteen available decimals to only two for simplicity — there is no need for millimeter precision when dealing with a fictional spaceship. Players and Gamemasters interested in more detailed orbital ephemerides can always access the Jet Propulsion Laboratory's Web site and use Horizons to generate the numbers they want.

▼ CELESTIAL MECHANICS

The coordinate system for our purposes here is called the ecliptic coordinate system. The plane of the Earth's orbit (called the ecliptic plane, usually just referred to as the ecliptic) defines the XY-plane of the system. The X-axis is defined by a line connecting the center of the Sun and the center of the Earth on the day of the Vernal (Spring) Equinox.

The following data are arranged in a table with two entries per planet: the date and the True Longitude (in degrees). The True Longitude is the angle between the reference direction and the body on its orbit. Because each planet is described by True Longitude, they all share a common origin — the Vernal Equinox. The angle is measured counter-clockwise from the origin. The various asteroids, both in the Belt and in other orbital groups, are not included here because their orbits are subject to too many perturbations, making any long range prediction hazardous at best.

By plotting the position of both the planet of departure and the planet of arrival on the desired date, the Gamemaster can see whether they are in their closest, average, or farthest position to determine travel time (see **Jovian Chronicles Rulebook**, page 168). For simplicity, assume that closest position is when the planets are within 45 degrees of one another, average is between 45 and 90 degrees, and farthest position is anywhere between 90 and 180 degrees of difference. This system is rough and assumes a fast transfer time — those wishing to calculate long range orbital transfer trajectories are on their own!

⊞ ORBITAL DATA FOR MERCURY TO JUPITER

Date	Mercury	Venus	Earth	Mars	Jupiter
2210 Jan 01	229.54	306.25	96.95	219.22	281.65
2210 Jan 29	310.66	350.56	125.47	233.11	283.98
2210 Feb 26	90.26	35.14	153.82	247.66	286.32
2210 Mar 26	217.60	80.17	181.82	262.93	288.67
2210 Apr 23	297.88	125.55	209.40	278.95	291.03
2210 May 21	65.13	170.97	236.57	295.66	293.39
2210 Jun 18	204.82	216.11	263.42	312.96	295.77
2210 Jul 16	285.94	260.80	290.14	330.62	298.15
2210 Aug 13	40.78	305.15	316.90	348.38	300.55
2210 Sep 10	190.87	349.45	343.88	5.97	302.95
2210 Oct 08	274.57	34.02	11.24	23.11	305.36
2210 Nov 05	18.42	79.03	39.03	39.63	307.78
2210 Dec 03	175.38	124.40	67.22	55.44	310.22
2210 Dec 31	263.52	169.83	95.67	70.50	312.65
2211 Jan 28	358.52	214.98	124.19	84.85	315.10
2211 Feb 25	157.93	259.68	152.55	98.58	317.56
2211 Mar 25	252.57	304.04	180.58	111.78	320.02
2211 Apr 22	340.96	348.34	208.18	124.56	322.50
2211 May 20	138.13	32.90	235.36	137.04	324.98
2211 Jun 17	241.53	77.90	262.22	149.34	327.47
2211 Jul 15	325.39	123.26	288.94	161.56	329.96
2211 Aug 12	115.88	168.69	315.69	173.83	332.46
2211 Sep 09	230.17	213.85	342.66	186.25	334.97
2211 Oct 07	311.38	258.57	10.00	198.94	337.49
2211 Nov 04	91.61	302.93	37.77	212.03	340.01
2211 Dec 02	218.26	347.23	65.94	225.61	342.54
2211 Dec 30	298.55	31.78	94.39	239.80	345.07

▷ORBITAL DATA FOR 2210-2212 CONTINUED

Date	Mercury	Venus	Earth	Mars	Jupiter
2212 Jan 27	66.49	76.77	122.91	254.67	347.61
2212 Feb 24	205.54	122.13	151.28	270.28	350.16
2212 Mar 23	286.58	167.56	179.33	286.63	352.70
2212 Apr 20	42.07	212.73	206.94	303.63	355.25
2212 May 18	191.67	257.46	234.14	321.13	357.81
2212 Jun 15	275.18	301.82	261.02	338.87	0.37
2212 Jul 13	19.58	346.11	287.74	356.59	2.93
2212 Aug 10	176.27	30.66	314.49	14.00	5.49
2212 Sep 07	264.11	75.64	341.45	30.88	8.05
2212 Oct 05	359.54	120.99	8.77	47.08	10.62
2212 Nov 02	158.93	166.43	36.52	62.53	13.18
2212 Nov 30	253.17	211.61	64.68	77.26	15.75
2212 Dec 28	341.86	256.34	93.11	91.31	18.32

ORBITAL DATA FOR SATURN TO PLUTO 🔲

Date	Saturn	Uranus	Neptune	Pluto
2210 Jan 01	97.60	129.67	43.58	160.37
2210 Jan 29	98.65	130.02	43.75	160.52
2210 Feb 26	99.70	130.37	43.92	160.67
2210 Mar 26	100.74	130.73	44.09	160.82
2210 Apr 23	101.79	131.08	44.26	160.97
2210 May 21	102.83	131.44	44.43	161.12
2210 Jun 18	103.88	131.79	44.60	161.27
2210 Jul 16	104.93	132.14	44.77	161.43
2210 Aug 13	105.97	132.50	44.94	161.58
2210 Sep 10	107.01	132.85	45.11	161.73
2210 Oct 08	108.06	133.21	45.28	161.88
2210 Nov 05	109.10	133.56	45.45	162.04
2210 Dec 03	110.14	133.92	45.62	162.19
2210 Dec 31	111.19	134.27	45.79	162.34
2211 Jan 28	112.23	134.63	45.96	162.49
2211 Feb 25	113.27	134.98	46.13	162.65
2211 Mar 25	114.31	135.34	46.30	162.80
2211 Apr 22	115.35	135.69	46.48	162.95
2211 May 20	116.39	136.05	46.65	163.11
2211 Jun 17	117.43	136.40	46.82	163.26
2211 Jul 15	118.46	136.76	46.99	163.41
2211 Aug 12	119.50	137.11	47.16	163.57
2211 Sep 09	120.54	137.47	47.33	163.72
2211 Oct 07	121.57	137.83	47.50	163.88
2211 Nov 04	122.60	138.18	47.67	164.03
2211 Dec 02	123.64	138.54	47.84	164.19
2211 Dec 30	124.67	138.89	48.01	164.34
2212 Jan 27	125.70	139.25	48.18	164.49
2212 Feb 24	126.73	139.61	48.35	164.65
2212 Mar 23	127.76	139.96	48.52	164.81
2212 Apr 20	128.79	140.32	48.69	164.96
2212 May 18	129.81	140.68	48.86	165.12
2212 Jun 15	130.84	141.03	49.03	165.27
2212 Jul 13	131.86	141.39	49.20	165.43
2212 Aug 10	132.89	141.75	49.38	165.58
2212 Sep 07	133.91	142.11	49.55	165.74
2212 Oct 05	134.93	142.46	49.72	165.90
2212 Nov 02	135.95	142.82	49.89	166.05
2212 Nov 30	136.97	143.18	50.06	166.21
2212 Dec 28	137.98	143.54	50.23	166.37
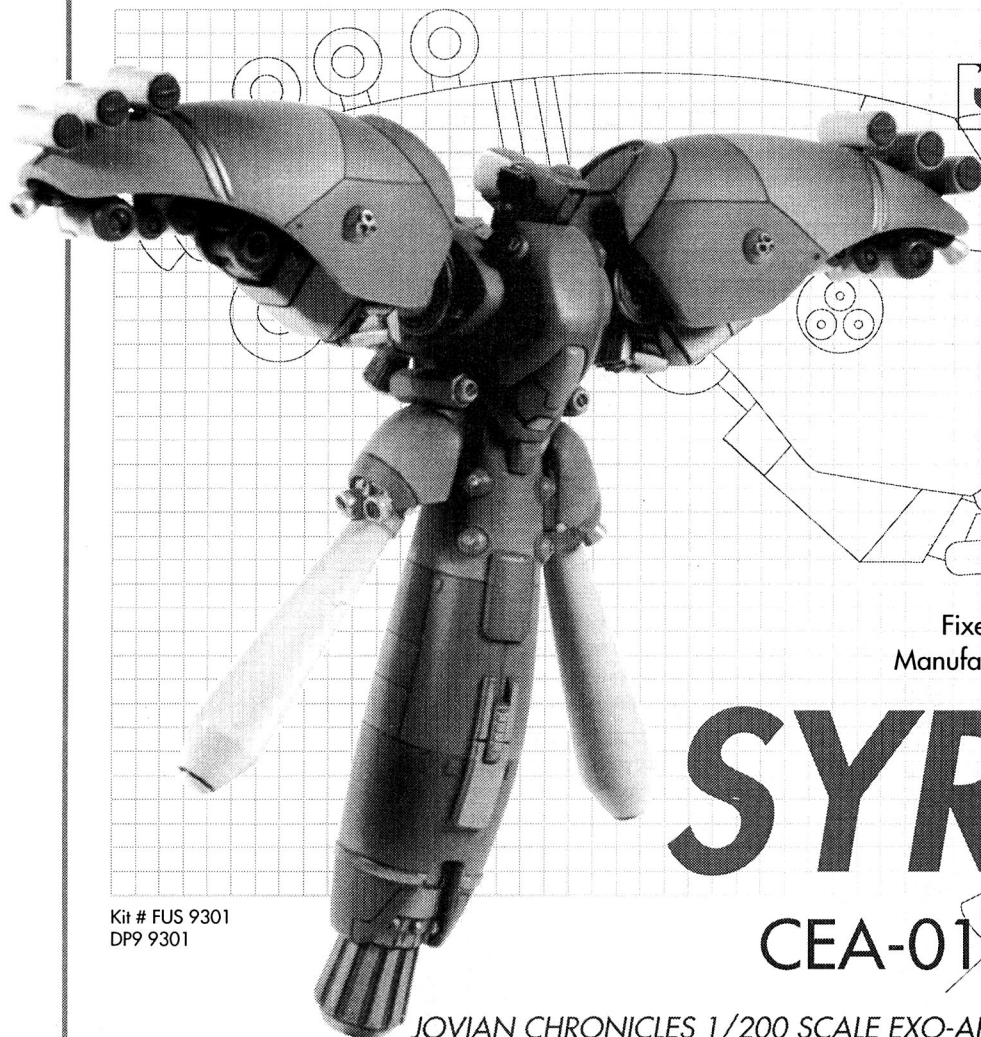
JOVIAN
CHRONICLES

Crew: One pilot
Height (total): 19.4 m
Height (to head): 17.2 m
Width: 23.4 m
Loaded Weight: 52 tons
Main Drive Output: 32 MW
Fixed Armament: 1 x LACW 125 ACDL
Manufacturer: Lunar Aerospace Consortium

SYREEN
CEA-01 EXO-ARMOR

Kit # FUS 9301
DP9 9301

JOVIAN CHRONICLES 1/200 SCALE EXO-ARMOR RESIN MODEL KIT SERIES

SYREEN MODEL KIT

The sculpting of the Syreen kit was done with great attention to the most minute mechanisms, such as the details of the shoulder and hip pods, grappler arms, torso motors and cockpit hatch assembly. Realism was pushed to the limit with the presence of fuel and control lines and engraved patterns on many parts and surfaces. The kit also comes with a base featuring an engraved CEGA crest. Comprehensive and fully illustrated multilingual instructions are included.

Scale: 1/200
Number of Parts: 28
Width (total): .... 11.8 cm (4.675")
Illustrated Instructions: Included

Medium: ... Plastic-like gray resin
Height (total): .... 9.7 cm (3.75")
Base: .... Included

ORDERING COSTS:

DP9-9301: Jovian Chronicles: Syreen 1/200 Scale Kit $39.95

US &Canadian Orders $5.00 per kit

Shipping Cost: foreign Orders $10.00 per kit

Shipping Cost: US and foreign orders must be pay in US currency; Canadian orders are in Canadian currency.

SUB-TOTAL ($CAN) _____

SHIPPING (See chart to top) _____

GST (7% Canadian orders only) _____

PST (7.5% Quebec orders only) _____

GRAND TOTAL ($CAN) _____
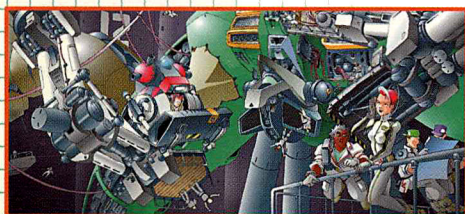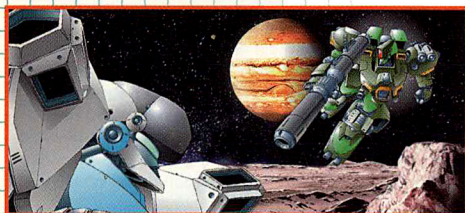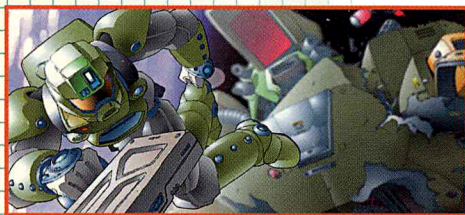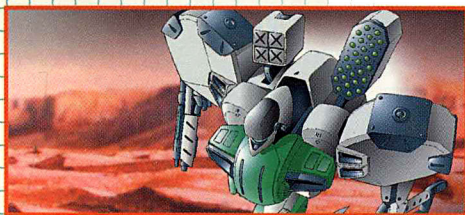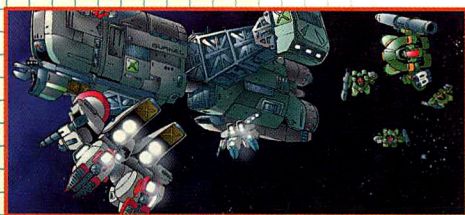
JOVIAN
CHRONICLES

Ada Friedhelm adjusted her eye patch and strained to pay attention. Her interlocutor had insisted on audio-only communication, but it didn't matter. She knew who he was. The artificially warbled male voice went on, at the same time deep and deranged.

"…and as a result the price of titanium is going to rise drastically. Furthermore, I have enlisted the cooperation of Captain Mortimer Haig, a pirate operating from a small asteroid on the orbit of Jupiter, whose task will be to intercept any titanium shipment to Vanguard Mountain. As a result, the shipyards in Vanguard will require some assistance from the Confederation. Thanks to the information you just provided me with, we now know without a doubt that the Valiant has just been refitted after her last trip and she is ready to go. All we need now is to tip the Jovians about the whereabouts of Captain Mortimer's asteroid and they'll leap to the rescue. Meanwhile, CEGA will trace the titanium market manipulation back to Elysée, and…"

Ada Friedhelm shook her head in disbelief. Her superiors at SolaPol weren't going to believe a word of this. This Devon Malachai was a piece of work.

Running a game may seem like a daunting task. This package contains vital information that will provide everything both novice and experienced Gamemasters need to run a dynamic, action-packed, highly entertaining Jovian Chronicles campaign. How do you find Players? What kind of stories should you run? How to provide tough enemies without resorting to insane Skill levels and equipment? How to quickly generate NPCs? How to get a plots moving? How to run faster vehicle combats? It's all in here.

- Three-fold Gamemaster's Screen
- Easy-to-access reference tables
- How to find and keep Players
- How to handle novice Players
- Random equipment packageS
- Dramatic Tactical System (DTS)
- Quick design references

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JOVIAN
CHRONICLES

TYPICAL DIFFICULTY THRESHOLDS

1	Moronic
2	Routine
3	Easy
4	Moderate
5	Challenging
6	Difficult
7	Very Difficult
8	Extremely Difficult
10	Near Impossible
12+	Pray for Divine Intervention

ATTACKER'S MODIFIERS

• Range

Point blank (≤3m)	+1	Long range	-2
Short range	+0	Extreme range	-3
Medium range	-1		

• Attacker Movement

Stationary	0	Jogging	-2
Walking	-1	Running	-3

• Intoxication

Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3

• Lighting

Area is poorly lit	-1	Area is barely lit	-3
Area is very poorly lit	-2	Area is compl. dark	-4

• Aiming

Per round of aiming (max bonus equal to Skill lev.)	+1
Aiming at specific location, except head	-2
Aiming at head	-3

• Weapon Accuracy Modifier

Varies according to weapon used	

DEFENDER'S MODIFIERS

• Defender Movement

Stationary	-1
Walking	+0
Jogging	+1
Running or sprinting	+2
Dodging (cumulative with movement)	+2

• Cover

Under light cover	+1
Completely hidden by light cover	+2
Under heavy cover	+3
Completely hidden by heavy cover	Auto. success

• Intoxication

Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3

MOVEMENT SPEEDS

Sprinting Speed	25 + 5 x (FIT + Athletics Skill)
Running Speed	2/3 Sprinting Speed
Jogging Speed	1/2 Sprinting Speed
Walking Speed	1/3 Sprinting Speed

*All speeds are expressed in meters/round.

FIRE AND ELECTRIC INTENSITIES

Inten.	Fire	Electricity
1	candle, lighter, or match	9-volt battery
2	gas light, oil lamp, kindling	weapon battery
3	torch, gas range	car battery
5	campfire,flare, welding torch	110 volts
7	bonfire, napalm, inc. grenade	220 volts
10	inferno, chemical fire	power lines
20	far from nuke*, fuel-air gren.	power mains
50	near a fuel-air explosion	lightning strike
100	near a nuke*, meltdown*	dam generator
1000	ground zero*	fusion plant output

* These do not include the concussive and radiation effects of these terrifying weapons.

FLAMMABILITY RATINGS

Flammability	Object Type
1	propane, natural gas, hydrogen gas, methane
3	gasoline
4	paper, pitch, crude oil
6	normal clothing, rugs, upholstered furniture
7	dry firewood
8	hair, fur
9	fresh cut or treated wood, most plastics, leather
12	magnesium flares
15	fire retarding clothing
50-200	most "non-flammable" objects

SKILL IMPROVEMENT COSTS

Level	Simple	Complex
1	1*	2
2	4	8
3	9	18
4	16	32
5	25	50
6	36	72
7	49	98
8	64	128

*All costs are listed in XPs.

MASTER SKILL LIST
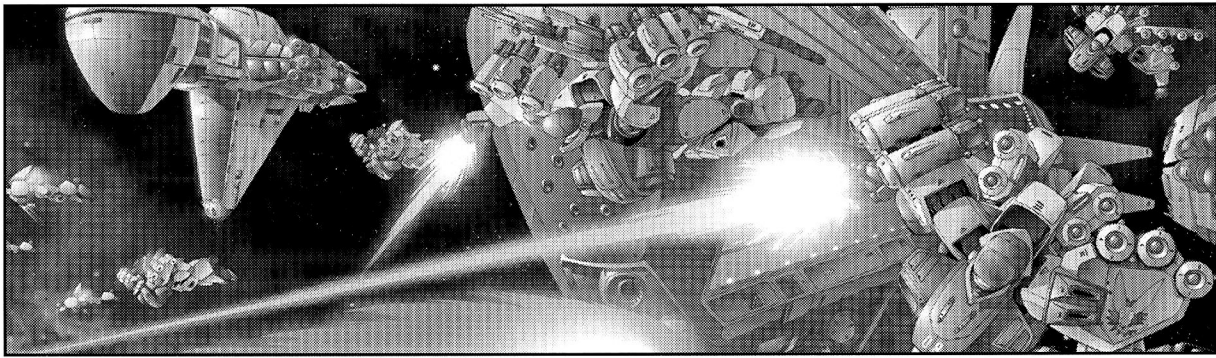
Skill	Attribute	Complexity	Page
Acrobatics	AGI	Simple	69
Aircraft Pilot	AGI	Complex	69
Animal Handling	CRE	Simple	73
Archery	AGI	Simple	69
Athletics	FIT	Simple	75
Bureaucracy	KNO	Complex	77
Business	KNO	Complex	77
Camouflage	CRE	Simple	73
Combat Sense	PER	Simple	80

MASTER SKILL LIST (CONT.)

Skill	Attribute	Complexity	Page
Communications	KNO	Complex	77
Computer	KNO	Complex	78
Cooking	CRE	Simple	73
Craft (Specific)	CRE	Simple	73
Dance	AGI	Simple	69
Demolitions	KNO	Complex	78
Disguise	CRE	Simple	73
Dodge, Drive	AGI	Simple	70
Earth Sciences	KNO	Complex	78
Electronic Design*	KNO	Complex	78
Electronic Warfare	KNO	Complex	74
Electronics	KNO	Complex	78
Etiquette	INF	Simple	76
Exo-Pilot	AGI	Simple	70
First Aid	KNO	Simple	78
Foreign Lang. (Spec.)	KNO	Simple	79
Forgery	CRE	Complex	74
G-Handling	FIT	Simple	76
Gambling	PER	Simple	81
Grooming	APP	Simple	72
Gunnery (Specific)	PER	Complex	74
Haggling	INF	Simple	76
Hand-to-Hand	AGI	Simple	70
Heavy Weapons	AGI	Simple	70
Human Perception	PSY	Complex	81
Interrogation	CRE	Simple	74
Intimidate	BLD	Simple	72
Investigation	PER	Complex	81
Law	KNO	Complex	79
Leadership	INF	Simple	76
Life Sciences	KNO	Complex	79
Literature	CRE	Simple	74
Mechanical Design*	KNO	Complex	79
Mechanics	KNO	Complex	79
Medicine*	KNO	Complex	79
Melee	AGI	Simple	71
Music	CRE	Simple	74
Naval Pilot	PER	Simple	81
Navigation (Specific)	KNO	Complex	80
Notice	PER	Simple	81
Parachuting	AGI	Simple	70
Physical Sciences	KNO	Complex	80
Psychology	KNO	Complex	80
Security	KNO	Complex	80
Seduction	APP	Simple	72
Sleight-of-Hand	AGI	Simple	71
Small Arms	AGI	Simple	71
Social Sciences	KNO	Complex	80
Space Pilot	CRE	Complex	74
Stealth	AGI	Complex	71
Streetwise	INF	Simple	77
Survival	CRE	Simple	75
Swimming	FIT	Simple	76
Tactics	CRE	Simple	75
Teaching	CRE	Simple	75
Theatrics	INF	Simple	77
Throwing	AGI	Simple	71
Tinker	CRE	Complex	75
Visual Art	CRE	Simple	75
Zero-G Combat*	AGI	Simple	72
Zero-G Movement	AGI	Simple	72

*These skills have a prerequisite (see p.69).

NPCS IN A NUT SHELL

Generic NPC	+1 Attr.	-1 Attr	Lvl 3 Skill	Lvl 2 Skill	Lvl 1 Skill
Bounty Hunter	BLD	n/a	Notice	Hand-to-Hand	Combat Sense
	FIT			Investigation	Dodge
	INF			Small Arms	Intimidate
					Law
Executive	APP	n/a	Business	Bureaucracy	Computer
	CRE			Etiquette	Leadership
	INF			Leadership	Notice
	KNO				Psychology
Exo-Armor Pilot	AGI	n/a	n/a	Gunnery (Exo)	Combat Sense
	PER			Communications	Elec. Warfare
				Exo Pilot	Notice
					Small Arms
Marshal	AGI	n/a	Investigation	Combat Sense	Dodge
	BLD			Hand-to-Hand	Law
	FIT			Notice	Melee
	PER				Streetwise
Martian Guide	CRE	n/a	Navigation (Land)	Drive	Combat Sense
	FIT		Survival	Notice	First Aid
	KNO			Phys. Sc.: Geography	Riding
	PER				Small Arms
Medic	KNO	n/a	First Aid	Computer	Bureaucracy
	PSY			Life Sciences	Combat Sense
				Medicine	Etiquette
					Notice
Mugger	BLD	APP	n/a	Notice	Combat Sense
	PER	CRE		Intimidate	Dodge
		KNO		Streetwise	Hand-to-Hand
		PSY			Melee
Pirate	BLD	APP	n/a	Hand-to-Hand	Combat Sense
	FIT	CRE		Small Arms	Dodge
	PER	KNO		Zero-G Movement	Gambling
	WIL				Intimidate
Police Officer	BLD	APP	n/a	Investigation	Combat Sense
	FIT			Law	Drive
	KNO			Notice	Dodge
					Small Arms
Politician	CRE	n/a	n/a	Bureaucracy	Business
	INF			Etiquette	Leadership
				F. Language	Psychology
					Theatrics
Smuggler	AGI	APP	n/a	Camouflage	Dodge
	CRE	PSY		Combat Sense	Drive
	PER			Stealth	Forgery
					Small Arms
Trader	INF	n/a	Business	Navigation (Space)	Drive
	KNO			Etiquette	Intimidate
	PER			Gambling	Notice
					Streetwise

THE COMBAT ROUND

[Step Zero:	Set-up Phase]
Step One:	Declaration Phase
Step Two:	Initiative Phase
Step Three:	Activation Phase
Step Four:	Miscellaneous Events Phase

Repeat Steps One to Four until each Combat Group has had the opportunity to move and act. A Combat Group may only move and act once per round. If one Player no longer has any Combat Groups left to use, he skips his phases until the end of the round.

Command Points (page 138) have four possible functions. CPs can be used as a regular action, with no penalty. They may buy a +2 modifier to a single Defense roll. CPs may activate a unit out of sequence. CPs can allow a unit to turn up to 180 degrees, even if it has no movement left. Command Points always have priority over initiative.

ACTIONS EXAMPLE

Among possible combat actions:

- fire one weapon
- fire one set of linked weapons
- embark/disembark one (1) crewman
- perform a physical attack (kicking, punching, etc...)
- activate an auxiliary system (ECM, active sensors, communication, etc...)

TERRAIN COSTS

Terrain Type	Walker	Ground	Hover	Obscuration
Clear	1	1	1	-
Rough	1	2	1	-
Sand, Dust	2	2	1	-
Woodland	1	2	2	1
Jungle	2	3	3	2
Swamp	3	4	1	1
Water	2*	3*	1	2**
Deep Water	2*	3*	1	4**
Snow	2	3	1	-
Ice	2	3	1	-
Urban†	2	1	2	1
Dense Urban†	3	2	3	2
+1 elevation	add 2	add 2	add 4	-
-1 elevation	add 1	-	-	-

* Only amphibious vehicles may enter Water hexes. Other vehicles will flood and automatically be put out of action if they enter a Water hex. Amphibious vehicles cannot enter or exit while moving at Top Speed.

** Water only produces Obscuration if the defender is in a Water hex and is not a Hover, Naval or Amphibious vehicles. Only affects normal sensors.

†Damage Points: 80 per Hex for Urban, 100 for Dense Urban.

DAMAGE VS ARMOR

Damage to Armor	Outcome	What Happens
Dam.<Base Armor	No Effect	Nothing; armor is merely scratched
Dam.= or>Armor	Light Dam.	-1 Armor; Roll on Syst. Damage Table
Dam.=or>Armor x2	Heavy Dam.	-2 Armor; Roll on Syst. Damage Table
Dam.=or>Armor x3	Overkill	Vehicle Destroyed

FIRE ARCS

F	forward (180 degrees)
FF	fixed forward (120 degrees, one hex ahead)
Rt	right (180 degrees)
L	left (180 degrees)
Rr	rear (180 degrees)
ST, T	turreted (360 degrees)

DETECTION THRESHOLD MODIFIERS

Applied to attacker's Electronic Warfare skill roll

• Sensor Rating	variable, by default 0
• Range and Arc Modifier	-1 per RB; arcs as weap.
• Target Sensor Profile	variable, by default 0
• Target Sensor Signature	+2 per extra RB

Applied to defender's Concealment Threshold

• Stealth Rating	variable, by default 0
• Ground Movement	-1 per hex moved by target
• Air Movement	-1 per Air War hex moved
• Space Movement	-1 per Thrust point applied
• Combat Penalty	-1 per weapon fired by target

INFANTRY ROF

Min. Number of Troopers w/Weapon	ROF bonus
1	0
2	+1
4	+2
8	+3

ATTACK ROLL

Roll Gunnery Skill/Attribute plus these modifiers:

• Fire Control

The Fire Control rating of the vehicle

• Weapon Accuracy

The Accuracy rating of the weapon

• Range

Point Blank	+1	Long	-2
Short	+0	Extreme	-3
Medium	-1		

• Attacker's Movement

Stationary	+2	Combat Speed	+0
Half Cbt Spd. or less	-1	Top Speed	-3

• Minus the Obscurement Total

DEFENSE ROLL

Roll Piloting Skill/Attribute plus these modifiers:

• Maneuver

The Maneuver rating of the vehicle

• Defender's Movement

Hexes Moved	Modifier	Hexes Moved	Modifier
0	-3	7-9	+1
1-2	-2	10-19	+2
3-4	-1	20-99	+3
5-6	+0	100-999	+4

• Arc of Attack

Attack from Front	-0	Attack from Rear	-2
Attack from Rr Flank	-1		

SYSTEMS DAMAGE

Dmgd System	Light Dam.	Heavy Dam.
1 Fire Control	Roll SubTable A	Roll SubTable A and add +1
2 Structure	Roll SubTable B	Roll SubTable B and add +1
3 Crew	Crew stun.*	10% casualties, min1.
4 Movement	-1 MP	1/2 remaining MP (round down) & -2 maneuver
5 Auxi. Syst.	-1 to 1d6	1d6 Auxiliary systems Aux. Systems destroyed *
6 Roll twice on this table at the proper level of damage		

*-1 action for 1 round

SUBTABLE A: FIRE CONTROL DAMAGE

1	-1 to a single Weapon
2	-2 to a single Weapon
3	-1 to all Weapons
4	Single Weapon destroyed
5	Fire Control system destroyed (-5 to attacks)
6	Roll Twice on this table
7	Ammunition/Fuel Hit — roll 1 die:
1-3	Ammo Storage and Fuel Tank Ruptured (vehicle cannot move or fire weapons)
4-6	Chain Reaction! Ammo and Fuel Explodes! (Vehicle Destroyed and Crew Killed)

SUBTABLE B: STRUCTURAL DAMAGE

1	-1 MP
2	1/2 remaining MP (round down)
3	-1 to Maneuver
4	-2 to Maneuver
5	Power transfer failure; no movement
6	Catastrophic crew compartment failure, 75% casualties, minimum 1
7	Complete structural failure; vehicle is destroyed, but crew survives

TACTICAL SYSTEM FUMBLE EFFECTS

Situation	Fumble Effect
Initiative	lose automatically; if both fumble, reroll
Attack	miss automatically
Defense	hit automatically unless attack also fumbles; for damage purposes treat roll as 0
Active Sensors	fail to achieve LOS automatically
High Speed 180° turn	crash; take Light (1-4) or Heavy (5-6) damage

RAMMINGS

Ramming Direction	Impact Speed
Head On	Attacker Speed + Defender Speed
Side	(Attacker Speed + Defender Speed)/2 (round up)
Rear	Attacker Speed - Defender Speed

IMPACT SPEED MODIFIERS

Impact Speed	Damage Modifier
1-2	-2
3-4	-1
5-6	+0
7-9	+1
10-19	+2
20-99	+3
100-999	+4

JOVIAN CHRONICLES

TYPICAL DIFFICULTY THRESHOLDS

1	Moronic
2	Routine
3	Easy
4	Moderate
5	Challenging
6	Difficult
7	Very Difficult
8	Extremely Difficult
10	Near Impossible
12+	Pray for Divine Intervention

ATTACKER'S MODIFIERS

• Range

Point blank (≤3m)	+1	Long range	-2
Short range	+0	Extreme range	-3
Medium range	-1		

• Attacker Movement

Stationary	0	Jogging	-2
Walking	-1	Running	-3

• Intoxication

Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3

• Lighting

Area is poorly lit	-1	Area is barely lit	-3
Area is very poorly lit	-2	Area is compl. dark	-4

• Aiming

Per round of aiming (max bonus equal to Skill lev.)	+1
Aiming at specific location, except head	-2
Aiming at head	-3

• Weapon Accuracy Modifier

Varies according to weapon used

DEFENDER'S MODIFIERS

• Defender Movement

Stationary	-1
Walking	+0
Jogging	+1
Running or sprinting	+2
Dodging (cumulative with movement)	+2

• Cover

Under light cover	+1
Completely hidden by light cover	+2
Under heavy cover	+3
Completely hidden by heavy cover	Auto. success

• Intoxication

Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3

JOVIAN CHRONICLES

MOVEMENT SPEEDS

Sprinting Speed*	25 + 5 x (FIT + Athletics Skill)
Running Speed	2/3 Sprinting Speed
Jogging Speed	1/2 Sprinting Speed
Walking Speed	1/3 Sprinting Speed

*All speeds are expressed in meters/round.

FIRE AND ELECTRIC INTENSITIES

Inten.	Fire	Electricity
1	candle, lighter, or match	9-volt battery
2	gas light, oil lamp, kindling	weapon battery
3	torch, gas range	car battery
5	campfire, flare, welding torch	110 volts
7	bonfire, napalm, inc. grenade	220 volts
10	inferno, chemical fire	power lines
20	far from nuke*, fuel-air gren.	power mains
50	near a fuel-air explosion	lightning strike
100	near a nuke*, meltdown*	dam generator
1000	ground zero*	fusion plant output

* These do not include the concussive and radiation effects of these terrifying weapons.

FLAMMABILITY RATINGS

Flammability	Object Type
1	propane, natural gas, hydrogen gas, methane
3	gasoline
4	paper, pitch, crude oil
6	normal clothing, rugs, upholstered furniture
7	dry firewood
8	hair, fur
9	fresh cut or treated wood, most plastics, leather
12	magnesium flares
15	fire retarding clothing
50-200	most "non-flammable" objects

SKILL IMPROVEMENT COSTS

Level	Simple	Complex
1	1*	2
2	4	8
3	9	18
4	16	32
5	25	50
6	36	72
7	49	98
8	64	128

*All costs are listed in XPs.

MASTER SKILL LIST

Skill	Attribute	Complexity	Page
Acrobatics	AGI	Simple	69
Aircraft Pilot	AGI	Complex	69
Animal Handling	CRE	Simple	73
Archery	AGI	Simple	69
Athletics	FIT	Simple	75
Bureaucracy	KNO	Complex	77
Business	KNO	Complex	77
Camouflage	CRE	Simple	73
Combat Sense	PER	Simple	80

MASTER SKILL LIST (CONT.)

Skill	Attribute	Complexity	Page
Communications	KNO	Complex	77
Computer	KNO	Complex	78
Cooking	CRE	Simple	73
Craft (Specific)	CRE	Simple	73
Dance	AGI	Simple	69
Demolitions	KNO	Complex	78
Disguise	CRE	Simple	73
Dodge, Drive	AGI	Simple	70
Earth Sciences	KNO	Complex	78
Electronic Design*	KNO	Complex	78
Electronic Warfare	CRE	Complex	74
Electronics	KNO	Complex	78
Etiquette	INF	Simple	76
Exo-Pilot	AGI	Complex	70
First Aid	KNO	Simple	78
Foreign Lang. (Spec.)	KNO	Simple	79
Forgery	CRE	Complex	74
G-Handling	FIT	Simple	76
Gambling	PER	Simple	81
Grooming	APP	Simple	72
Gunnery (Specific)	PER	Complex	81
Haggling	INF	Simple	76
Hand-to-Hand	AGI	Simple	70
Heavy Weapons	AGI	Simple	70
Human Perception	PSY	Complex	81
Interrogation	CRE	Simple	74
Intimidate	BLD	Simple	72
Investigation	PER	Complex	81
Law	KNO	Complex	79
Leadership	INF	Simple	76
Life Sciences	KNO	Complex	79
Literature	CRE	Simple	74
Mechanical Design*	KNO	Complex	79
Mechanics	KNO	Simple	79
Medicine*	KNO	Complex	79
Melee	AGI	Simple	71
Music	CRE	Simple	74
Naval Pilot	PER	Complex	81
Navigation (Specific)	KNO	Complex	80
Notice	PER	Simple	81
Parachuting	AGI	Simple	70
Physical Sciences	KNO	Complex	80
Psychology	KNO	Complex	80
Security	KNO	Complex	80
Seduction	APP	Simple	72
Sleight-of-Hand	AGI	Simple	71
Small Arms	AGI	Simple	71
Social Sciences	KNO	Complex	80
Space Pilot	CRE	Complex	74
Stealth	AGI	Complex	71
Streetwise	INF	Simple	77
Survival	CRE	Simple	75
Swimming	FIT	Simple	76
Tactics	CRE	Simple	75
Teaching	CRE	Simple	75
Theatrics	INF	Simple	77
Throwing	AGI	Simple	71
Tinker	CRE	Complex	75
Visual Art	CRE	Simple	75
Zero-G Combat*	AGI	Simple	72
Zero-G Movement	AGI	Simple	72

*These skills have a prerequisite (see p.69).

NPCS IN A NUT SHELL

Generic NPC	+1 Attr.	-1 Attr	Lvl 3 Skill	Lvl 2 Skill	Lvl 1 Skill
Bounty Hunter	BLD	n/a	Notice	Hand-to-Hand	Combat Sense
	FIT			Investigation	Dodge
	INF			Small Arms	Intimidate
					Law
Executive	APP	n/a	Business	Bureaucracy	Computer
	CRE			Etiquette	Leadership
	INF			Leadership	Notice
	KNO				Psychology
Exo-Armor Pilot	AGI	n/a	n/a	Gunnery (Exo)	Combat Sense
	PER			Communications	Elec. Warfare
				Exo Pilot	Notice
					Small Arms
Marshal	AGI	n/a	Investigation	Combat Sense	Dodge
	BLD			Hand-to-Hand	Law
	FIT			Notice	Melee
	PER				Streetwise
Martian Guide	CRE	n/a	Navigation (Land)	Drive	Combat Sense
	FIT		Survival	Notice	First Aid
	KNO			Phys. Sc.: Geography	Riding
	PER				Small Arms
Medic	KNO	n/a	First Aid	Computer	Bureaucracy
	PSY			Life Sciences	Combat Sense
				Medicine	Etiquette
					Notice
Mugger	BLD	APP	n/a	Notice	Combat Sense
	PER	CRE		Intimidate	Dodge
		KNO		Streetwise	Hand-to-Hand
		PSY			Melee
Pirate	BLD	APP	n/a	Hand-to-Hand	Combat Sense
	FIT	CRE		Small Arms	Dodge
	PER	KNO		Zero-G Movement	Gambling
	WIL				Intimidate
Police Officer	BLD	APP	n/a	Investigation	Combat Sense
	FIT			Law	Drive
	KNO			Notice	Dodge
					Small Arms
Politician	CRE	n/a	n/a	Bureaucracy	Business
	INF			Etiquette	Leadership
				F. Language	Psychology
					Theatrics
Smuggler	AGI	APP	n/a	Camouflage	Dodge
	CRE	PSY		Combat Sense	Drive
	PER			Stealth	Forgery
					Small Arms
Trader	INF	n/a	Business	Navigation (Space)	Drive
	KNO			Etiquette	Intimidate
	PER			Gambling	Notice
					Streetwise

THE COMBAT ROUND

[Step Zero:	Set-up Phase]
Step One:	Declaration Phase
Step Two:	Initiative Phase
Step Three:	Activation Phase
Step Four:	Miscellaneous Events Phase

Repeat Steps One to Four until each Combat Group has had the opportunity to move and act. A Combat Group may only move and act once per round. If one Player no longer has any Combat Groups left to use, he skips his phases until the end of the round.

Command Points (page 138) have four possible functions. CPs can be used as a regular action, with no penalty. CPs may buy a +2 modifier to a single Defense roll. CPs may activate a unit out of sequence. CPs can allow a unit to turn up to 180 degrees, even if it has no movement left. Command Points always have priority over initiative.

ACTIONS EXAMPLE

Among possible combat actions:

* fire one weapon
* fire one set of linked weapons
* embark/disembark one (1) crewman
* perform a physical attack (kicking, punching, etc...)
* activate an auxiliary system (ECM, active sensors, communication, etc...)

TERRAIN COSTS

Terrain Type	Walker	Ground	Hover	Obscurement
Clear	1	1	1	-
Rough	1	2	1	-
Sand, Dust	2	2	1	-
Woodland	1	2	2	1
Jungle	2	3	3	2
Swamp	3	4	1	-
Water	2*	3*	1	2**
Deep Water	2*	3*	1	4**
Snow	2	2	1	-
Ice	2	3	1	-
Urban†	2	1	2	1
Dense Urban†	3	2	3	2
+1 elevation	add 2	add 2	add 4	-
-1 elevation	add 1	-	-	-

* Only amphibious vehicles may enter Water hexes. Other vehicles will flood and automatically be put out of action if they enter a Water hex. Amphibious vehicles cannot enter or exit water while moving at Top Speed.

** Water only produces Obscurement if the defender is in a Water hex and is not a Hover, Naval or Amphibious vehicles. Only affects normal sensors.

†Damage Points: 80 per Hex for Urban, 100 for Dense Urban.

DETECTION THRESHOLD MODIFIERS

Applied to attacker's Electronic Warfare skill roll

• Sensor Rating	variable, by default 0
• Range and Arc Modifier	-1 per RB; arcs as weap.
• Target Sensor Profile	variable, by default 0
• Target Sensor Signature	+2 per extra RB

Applied to defender's Concealment Threshold

• Stealth Rating	variable, by default 0
• Ground Movement	-1 per hex moved by target
• Air Movement	-1 per Air War hex moved
• Space Movement	-1 per Thrust point applied
• Combat Penalty	-1 per weapon fired by target

ATTACK ROLL

Roll **Gunnery** Skill/Attribute plus these modifiers:

• Fire Control

The Fire Control rating of the vehicle

• Weapon Accuracy

The Accuracy rating of the weapon

• Range

Point Blank	+1	Long	-2
Short	+0	Extreme	-3
Medium	-1		

• Attacker's Movement

Stationary	+2	Combat Speed	+0
Half Cbt Spd. or less	+1	Top Speed	-3

• Minus the Obscurement Total

DEFENSE ROLL

Roll **Piloting** Skill/Attribute plus these modifiers:

• Maneuver

The Maneuver rating of the vehicle

• Defender's Movement

Hexes Moved	Modifier	Hexes Moved	Modifier
0	-3	7-9	+1
1-2	-2	10-19	+2
3-4	-1	20-99	+3
5-6	+0	100-999	+4

• Arc of Attack

Attack from Front	-0	Attack from Rear	-2
Attack from Rr Flank	-1		

DAMAGE VS ARMOR

Damage to Armor	Outcome	What Happens
Dam.<Base Armor	No Effect	Nothing; armor is merely scratched
Dam.= or>Armor	Light Dam.	-1 Armor;Roll on Syst. Damage Table
Dam.=or>Armor x2	Heavy Dam.	-2 Armor;Roll on Syst. Damage Table
Dam.= or>Armor x3	Overkill	Vehicle Destroyed

FIRE ARCS

F	forward (180 degrees)
FF	fixed forward (120 degrees, one hex ahead)
Rt	right (180 degrees)
L	left (180 degrees)
Rr	rear (180 degrees)
ST, T	turreted (360 degrees)

INFANTRY ROF

Min. Number of Troopers w/Weapon	ROF bonus
1	0
2	+1
4	+2
8	+3

SYSTEMS DAMAGE

	Dmgd System	Light Dam.	Heavy Dam.
1	Fire Control	SubTable A	Roll SubTable A and add +1
2	Structure	SubTable B	Roll SubTable B and add +1
3	Crew	Crew stun.*	10% casualties, min1.
4	Movement	-1 MP	1/2 remaining MP (round down) & -2 maneuver
5	Auxi. Syst.	-1 to 1d6	1d6 Auxiliary systems Aux. Systems destroyed
6	Roll twice on this table at the proper level of damage		

*-1 action for 1 round

SUBTABLE A: FIRE CONTROL DAMAGE

1	-1 to a single Weapon
2	-2 to a single Weapon
3	-1 to all Weapons
4	Single Weapon destroyed
5	Fire Control system destroyed (-5 to attacks)
6	Roll Twice on this table
7	Ammunition/Fuel Hit — roll 1 die:
1-3	Ammo Storage and Fuel Tank Ruptured (vehicle cannot more or fire weapons)
4-6	Chain Reaction! Ammo and Fuel Explodes! (Vehicle Destroyed and Crew Killed)

SUBTABLE B: STRUCTURAL DAMAGE

1	-1 MP
2	1/2 remaining MP (round down)
3	-1 to Maneuver
4	-2 to Maneuver
5	Power transfer failure; no movement
6	Catastrophic crew compartment failure, 75% casualties, minimum 1
7	Complete structural failure; vehicle is destroyed, but crew survives

TACTICAL SYSTEM FUMBLE EFFECTS

Situation	Fumble Effect
Initiative	lose automatically; if both fumble, reroll
Attack	miss automatically
Defense	hit automatically unless attack also fumbles; for damage purposes treat roll as 0
Active Sensors	fail to achieve LOS automatically
High Speed 180° turn	crash; take Light (1-4) or Heavy (5-6) damage

RAMMINGS

Ramming Direction	Impact Speed
Head On	Attacker Speed + Defender Speed
Side	(Attacker Speed + Defender Speed)/2 (round up)
Rear	Attacker Speed - Defender Speed

IMPACT SPEED MODIFIERS

Impact Speed	Damage Modifier
1-2	-2
3-4	-1
5-6	+0
7-9	+1
10-19	+2
20-99	+3
100-999	+4