III. Game Mechanics —

TIME AND SCALE

As with *Basic Role-Playing,* each *Future*World* melee round is about 12 seconds.

Because of the long ranges of projectile and energy weapons, we recommend a movement scale of about 2 meters to the inch, or of 4 meters to the inch if 15mm figures are used (there are excellent 15mm science fiction figures for sale). Even at this reduced scale, most scenarios may not fit onto a tabletop — or even an apartment floor: a weapon of 300 meters range must be 150 inches (or 75 inches at 15mm scale) away from a target before it cannot reach that target.

To make games manageable, referees are encouraged to put the characters in the worst possible terrain, if only to cut down the actual space needed for play. Even the character with the longest-ranged gun in the universe will have to wait until a spear-armed native decides to move out from behind the obstructing tree.

USE OF SKILLS

Resolve all skills in *Future*World* as skills are resolved in *Basic Role-Playing.*

SKILL IMPROVEMENT

All *Future*World* skills improve with the use of experience rolls.

Characters also may be trained in one or more skills. To train a character after his six terms spent on the career paths, his player must drop him out of play for one game year. The character may be assumed to be in the ICE, Army, or Scouts Reserve, if that is the career path desired. If attempting a new career, the normal career path Career and Enlistments roll for that career must be made.

Gaining extra training may be costly. When bringing a character back into play after spending a game year training, the player must successfully roll the character's luck percentage or less on D100. If failing, he then rolls 2D10 and subtracts that from the character's hit points. If the roll exceeds the character's hit points, the character has been seriously hurt. If the player then fails a D100 roll of his character's CON x 5, the character has died. If the player succeeds on the CON x 5 roll, the character has spent the game year recuperating to recover his normal hit points, and receives no training in that year. Only if the player originally succeeded with the luck roll will the character get the benefit of training originally desired.

COMBAT PROCEDURES

Combat in *Future*World* is faster and more deadly than that of *Basic Role-Playing.* A character's life can depend on his ability to pick the proper force screen or EW mode that will protect him from the offensive weapons of his opponents.

Weapons, force screens, and electronic warfare devices are discussed at length in the following chapter IV, Equipment. Discussed here is game sequence, encumbrance, the combat use of EW (with an example), and seven combat modifiers.

GAME SEQUENCE

Like *Basic Role-Playing,* combat occurs in melee rounds, and each round has the same sequence:

1. **Declaration of Intent** — in the guise of their characters, players declare a definite action *(I'll put a blaster bolt through that Sauriki over there!)* or a definite reaction *(If that Sauriki looks in my direction, I'll put a blaster bolt through him!).*

2. **Movement of Non-Engaged Characters** — characters who do not intend to perform an action during the round (including a movement of up to 6 meters) may now move their full possible movement distance for the round, or a fraction thereof. Any character using a jump pack moves during this segment, and can do nothing else this round.

3. **Melee and Missile Resolution** — every character who has declared an action, even those who have made only reactive declarations, now resolve those declarations. The resolution is done in the order of the character with the highest DEX first, down to the character with the lowest DEX. If two characters have the same DEX, the resolutions are considered to be simultaneous. In special cases, a referee might rule, however, that missile weapons fired by same-DEX characters would strike in ascending order of distance from their targets.

4. **Bookkeeping** — once every character has had an opportunity to perform movement, action, or reaction, players should check their bookkeeping to make sure that all wounds and energy drains have been recorded, check the playing surface to make sure that all moved figures have been moved properly, and so on.

Some actions can be combined in one round, at a penalty against the DEX of the performing character. For instance, a character might wish to switch his force screen setting and then fire, or to move 6 meters and then fire, or to drop to the ground and then fire: his fire would come at half his DEX. A DEX 16 character could switch his screen at DEX 16 and fire at DEX 8 — or fire at DEX 16 and switch his screen at DEX 8. A character never can perform two of the same actions in one round, like firing twice. If halving DEX results in an odd number, then round up to the next nearest whole number.

ENCUMBRANCE (ENC)

A character moves normally only so long as the ENC of the items he carries does not exceed his STR.

ENC for weapons and items of equipment is given on the tables in the Equipment chapter. Determine other ENC by using these items as guidelines. If carrying another character, each SIZ point of that character counts as one ENC point.

For every point of ENC exceeding the STR of the character that the character carries, subtract 2 meters from the normal distance (24 meters) that the character could have moved in the melee round, were he not slowed down by added mass. If the character is running at top speed, every ENC point he carries exceeding his STR slows him by 6 meters per melee round.

Every excess point of ENC also decreases the character's Climb, Jump, and Move Quietly skill percentages by 5%.

COMBAT USES OF ELECTRONIC WARFARE

Characters can follow one of two strategies when using electronic warfare (see also p. 11, *electronic warfare*).

Each melee round, a character may set his tacpack computer to one of the three EW programs — counter-measures, direct counter- counter-measures, or combat sensors — and perform another action as well.

Alternatively, the character can use the entire round to program his EW capability to perform all three of the EW functions, splitting up his EW output in any way desired.

EXAMPLE
John Steel, former ICE man, is being tracked by the nefarious Sauriki. He's spotted his followers, and they seem to have spotted him. He unlimbers his guided missile launcher and sends one winging at the Sauriki leader, just as that worthy lets one go at him!

Fortunately, being a wise character, John took the previous round to (1) set 2 points of his effectors at CM, to try to reduce the chance of the missile reaching him, (2) set 2 points of his sensors at Sensor, to make sure other Sauriki aren't about to jump him, and (3) direct the remaining 3 points each of effector and sensor as DCCM at the target of the missile, to try to foil any CM the Sauriki has put up to divert the missile.

COMBAT MODIFIERS

A character's chance of successfully hitting someone with a weapon can be modified by the conditions peculiar to the fight. The following conditions should always be taken into account before determining any chance of hitting. These modifiers are cumulative.

DARKNESS — A character who must fight in the dark who is unable to see in the dark has 1/5th his normal chance to hit.

KNOCKED DOWN — A character who has been knocked down cannot stand again unless he is left alone for a melee round. Fighting from the ground with a melee weapon reduces his normal attack chance by half; an opponent using a melee weapon against him adds 20% to his percentage chance to hit. Regular missile weapon combat is unaffected by the knocked down situation on either side.

PRONE — A character firing from a prone position adds 20% to his chance to hit. Unless being attacked from a higher elevation, a prone character automatically cuts an attacker's chance of hitting him by half the normal attack chance.

CAUGHT BY SURPRISE — If the character hits an unsuspecting target or one from his rear, the target is twice as easy to hit, and the attacker's chance to impale also doubles. A roll of 96-00 is still a miss. This doubled chance to hit also applies to characters who are helpless, tied up, asleep, etc.

MOVING/COVERED TARGET — A character's chance to hit a moving target or one which has partial cover is half of the character's normal chance to hit. The chance to hit is also halved if the target is in the air. If the target is moving, in the air, and using cover, the chance to hit is halved three times. *EXAMPLE: John Steel is trying to hit a Quertzl Scout with his heavy laser rifle, with which he is now 80%. The Quertzl is moving (reducing John's chance to 40%), is flying (reducing the chance again, to 20%), and using trees for cover (halving the chance a third time, to 10%).*

MOVING ATTACKER — A character moving while attacking with a missile weapon halves his normal chance to hit.

MAJOR WOUNDS

A character losing more than half his current hit points by means of one hit has received a major wound. His player must roll the character's remaining hit points or less on D20, or he falls, unable to do anything until the player manages to roll the remaining hit points or less on D20 during the next or a later bookkeeping phase.

EXAMPLE
John Steel has lost 5 points through several minor wounds, but suddenly the Sauriki he is fighting gets in an impaling hit with a projectile weapon. John's armor and force screen absorb a good chunk of the damage, but 6 points get through. John with remaining hit points of 12, has been hit for 6, exactly half his current hit points. He is reduced to 6 hit points and his player must roll 6 or less on D20 or John will fall, badly wounded, to the ground, capable of nothing but crawling slowly away, or else of applying his First Aid skill and medikit to the problem. John qualifies as a 'knocked down' character if someone attacks him.
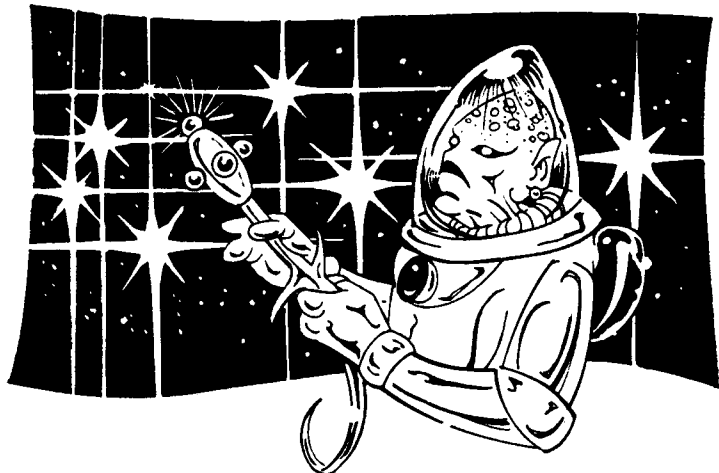
IV. Equipment ————

ARMOR (4 types)
COMPUTERS
   (electronic warfare)
FORCE SCREENS (3 types)
GRAV CARS (4 types)
JUMP PACKS
LIBRARY COMPUTERS

MEDIKITS
RADIOS
SCANNER GOGGLES
SCOUT HELMETS
TACPACKS
WEAPONS (6 categories)

ARMOR

A warrior has two types of protection with which to defend against the deadly attacks of his enemies: body armor, which comes in four types, and the force screen, which is part of any tacpack. See *force screen* in this chapter. If body armor and force screens are both present, modify any damage by using both protections.

No armor will even slow down a force sword.

Nylar Armor — 20th century politicians and celebrities would recognize this woven synthetic fabric, meant to absorb a high impact. It protects against projectile weapons, and is less efficient against lasers or blasters: if hit when wearing it, subtract 9 points from projectile damage, 4 points from blaster damage, and 5 points from laser damage for each hit of each type.

Tinsel Armor — This armor turns the *Future*World* warrior into a shining knight — though the wearer would not fare well against a sword blow while wearing it. Tinsel armor reflects laser beams, but it offers little protection against impacts or burns: if hit when wearing it, subtract 2 points from projectile damage, 4 points from blaster damage, and 9 points from laser damage for each hit of each type.

Chitin Armor — An armor so-named because it makes the wearer look like a bug, chitin armor is bulbous-appearing and heavily-padded. Much of the padding actually is empty space serving as heat sinks to absorb blaster fire. This armor also offers some protection against projectiles and lasers, but not as much as nylar and tinsel. If hit when wearing chitin, subtract 5 points from projectile damage, 10 points from blaster damage, and 6 point from laser damage for each hit of each type.

Ceramet Armor — Imperial armed forces reserve this armor for their use. Common mercenaries caught with it will have it summarily confiscated and find themselves fined. It can be purchased on the black market. Composed of a ceramic material equally protective against projectiles, lasers, and blasters, it does not protect as well against any one class of weapon as well as the armor specially developed to protect against that weapons class. If hit while wearing ceramet, subtract 7 points from every damage hit.

COMPUTERS

In the Empire, three types of computers exist: the *tacpack* (tactical pack computer), the *tool* (standard computers used in much the same way computers are used in the 20th century), and *AI* (artificial intelligence computers — or *robots*).

Tackpacks and AIs usually have environment-interpreting *sensors* built into them; tacpack computers also are equipped with *effectors*, which can electronically manipulate portions of the environment. Tool computers may also have modules built into them to give them the same capabilities. Similar modules can be plugged into tacpack and AI computers to augment their abilities.

A tacpack computer and a generator make up the standard tactical war pack. Tacpack computers come equipped with sensors, effectors, and force screen generators.

Tool computers come in all sizes. They have their own generators with an ENC of 1 for each 2 points of power generated. Sensors and effectors can be purchased separately for tool computers. However, a tool computer can generate EW equal only to its generator points, despite the capability of its attached modules.

AI computers usually are known as robots. Robots are described in chapter II, Player Characters — Careers and Races.

In *Future*World, computers play a large part in combat. They may warn adventurers of danger, track and deflect incoming missiles, suppress enemy defenses, or eavesdrop on enemy communications. In each activity, the powers of a computer are limited by (1) the EW rating of the computer, (2) the amount of energy devoted to such tasks, and (3) the limits of their sensors and effectors.

TYPES OF ELECTRONIC WARFARE

Computers equipped with sensors and effectors can perform the following EW functions, with 5 EW points per point of ENC.

Counter-Measures (CM) — This consists of a variety of decoy, jamming, and noise-suppression programs designed to make the user harder to spot electronically. Each point of CM makes it 10% less likely that a seeker missile will acquire properly, or that a scanning computer sensor will register the user. This program uses 1 point of effectors for each point of CM that is deployed.

Direct Counter- Counter-Measures (DCCM) — This is a beamed attack at a target in the line-of-sight of the sensor/effectors of the user. Each point of DCCM subtracts a point from the target's CM, to maximum reduction of zero CM remaining. In effect, it offsets the target's ability to evade damage through CM. This program uses 1 point of effectors and 1 point of sensors for each point of DCCM that is beamed out.

Combat Sensors — These sensors can pinpoint passing people or objects by detecting body-heat, force screen emissions, and radio sources. Sensors are effective at a range of 15 meters for every point of energy put into them, up to the rated limit of the equipment, which is 5 EW points per point of ENC of the unit. A 1-ENC unit would have a 75-meter range. This program uses 1 point of sensors for each point of detection range usable by it.

Small versions of these sensors are put into seeker missiles. They can be locked onto a target, and then will direct the missile to the target. They do not have the 360° capability of the regular sensor.

FORCE SCREENS

Any tacpack can project three types of force screen. The size of the pack's generator determines the strength of the screen. Each tacpack contains one generator. If the character is putting up a force screen, using an energy weapon from the generator's energy, and using anything else like EW gear or a jump belt, all must be fed by the generator, and power must be allotted between the different needs.

If both body armor and force screen are present, modify any damage by using both protections. See *armor* under its own heading in this chapter.

Only one of the following three types of force screen may be put up by a character at a time, though the force screen type can be switched from melee round to melee round.

Kinetic Screen — This force screen slows down molecules moving faster than a slow walk. It slows down bullets and heated molecules (as from flame throwers) very well. It has no effect on blasters or lasers. One point of energy put into this screen will stop 1 point of impact damage.

Diffusion Screen — This force screen breaks up the wavelengths of visible light and similar radiation, reducing the effects of lasers. It has no effect on projectiles, missiles, or blasters. One point of energy put into this screen will stop 1 point of laser damage.

Magnetic Screen — This is an anti-blaster fire screen. It breaks up the magnetic bottles containing the plasma, so that the super-hot material releases harmlessly before it hits the target. A magnetic screen has no effect on projectiles, missiles, or light beams and radiation. Even a 1-point magnetic screen is an absolute defense against a force sword. One point of energy put into this screen will stop one point of blaster damage.

GRAV CARS

Frontier and outer worlds use four main types of anti-gravity vehicles. Each has a generator which supplies motive power, force screens (if any), and power for weaponry. Various brands and styles may differ slightly, world to world. All grav cars travel about 10 meters above the local terrain, and they cannot travel up or down inclines greater than 45°.

SCOUT CAR

Carries – 3
Speed – 500 m/MR
Defense – 30-point force screen
Offense – none
Generator – 50 points

Limitations

Each point of energy from this vehicle's generator will move it at 10 meters a melee round. If the 30-point screen is up, it only will go at 200 meters a melee round.

HAULER

Carries – 20 (driver + 19)
Speed – 300 m/MR
Defense – 10 points ceramet armor
Offense – semi-portable support gun
Generator – 50 points

Limitations

Each point of energy from this vehicle's generator will move it at 6 meters a melee round. Energy used for any other purpose will slow it down.

BATTLECAR

Carries – 5
Speed – 200 m/MR
Defense – 40 points of ceramet, 50 point force screen
Offense – various missiles, semi-portables, and one major weapon
Generator – 100 points

Limitations

Each point of energy from this vehicle's generator will move it 2 meters a melee round, due to the heavy armor and weaponry. Energy used for screens and weapons will slow it down every round they are used.

EXPLORER HAULER

Carries – driver + 5, plus one metric ton cargo
Speed – 300 m/MR
Defense – 5 points ceramet (cargo), 10 points ceramet (cab), 30 points force screen, 10 points EW
Offense – mount for semi-portable
Generator – 50 points

Limitations

Each point of energy from this vehicle's generator will move it 6 meters a melee round. Energy used for any other purpose will slow it down proportionately. A full set of passengers and cargo slows it down by half normal speed.

The Explorer Hauler is the workhorse of most gate explorations. It has a cab with two bench seats. There are gun ports for the driver, the middle front seat passenger, and the three back seat passengers. The other front seat passenger works the semi-portable in the mount (if there is one) or uses the mount as a fire platform for whatever weapon he uses.

The cargo section is in the back of the vehicle and can be left open (the walls are a human waist high), covered with a tarpaulin, or enclosed by an armored shell.

JUMP PACK

A jump pack is a small anti-gravity device. Every point of energy put into a jump pack allows the character using it to jump 20 more meters, even if fully encumbered. However, every extra point of ENC the character carries reduces the leap by 40 meters. Thus, a character with 2 extra points of ENC (-80 meters) must put 5 points of energy into a jump pack (+100 meters) to leap 20 meters. Jump packs must be individually tailored to match the SIZ and normal carrying capacity of the individual character.

LIBRARY COMPUTER

This specialized tool computer is used to maintain a reference library for *Future*World* explorers. Core and frontier worlds have many corporate computer libraries where, for a fee, anyone can get general knowledge, background on opened worlds, and answers to specific questions. The information is only as good as the information originally put into it.

In the field, library computers are generally pre-programmed with all that is known about the particular planet being explored, and general information about the equipment provided by the exploration sponsor and the sponsor's policies. It has specialized sensor packs to record information for the library computers at home base. Expedition library computers usually contain an ultraradio, a tacpack-type generator, sensors, and have an ENC of 8. Such computers often are built into hauler vehicles, taking up one seat occupiable by a man.

See also *computers*.

MEDIKIT

A medikit is a very advanced first aid kit. Besides the usual collection of bandages, ointments, and purgatives, it includes a small tool computer, specialized for medical use. The computer has specialized sensors and mechanical effectors which can inject drugs and take readings.

Skill percentage with the medikit is always the character's skill at First Aid. Everyone receives some training with the medikit.

A medikit can restore 1D6 hit points to a character each melee round.

A medikit can bring people back after they have lost more than their total hit points. Every round a character stays below zero hit points, he loses another hit point until he is twice below his CON. For instance, a character with 15 CON has 15 hit points: if he loses 30 hit points, he will be at −15 hit points, and at that point he will be dead. Medikit First Aid successfully applied before then will halt the march of death; sufficient successful subsequent applications will bring the character to above +1 hit points, where he is able to function again. Each time medikit First Aid is used, the character on whom it is being used must roll equal to or less than his CON x 5 on D100, or the shock of the treatment kills him anyway.

EQUIPMENT TABLE

Item	ENC*	Cost in Credits	Item	ENC*	Cost in Credits
semi-portable tripod	5	300	medikit	1	3000
guided missile pack (6 each)	12	12,000	Scout helmet	1	5000
seeker missile pack (6 each)	18	16,000	nylar armor (P-9, B-4, L-5)	2	300
tacpack (generator/screen)	1 per 2 points of energy	200 per pt of energy	tinsel armor (P-2, B-4, L-9)	1	500
			chitin armor (P-5, B-10, L-6)	3	800
effectors (EW radiators)	1 per 5 points of EW	100 per pt of EW rating	ceramet armor (P-7, B-7, L-7)	3	6000**
sensors (EW detectors)	1 per 5 points of EW	100 per pt of EW rating	jump pack	2	5000
			10-round clip of ammunition	¼	20
tool computer	1 per 1 point of EW	300 per pt of EW rating	30-round autogun magazine	½	100
			100-round semi-portable belt	1	500
scanner goggles	½	2000	gate transponder	1	5000

see previous ENC rule.
** *black market price.*

WEAPONS TABLE

Class	Category	Weapon	Base Chance %	Damage	ENC*	Range	Cost in Credits	Energy Used	Notes
Projectile	Hideout	derringer	20%	1D8	¼	6m	100	—	impales
	Handgun	light pistol	20%	1D10	½	20m	150	—	impales
		heavy pistol	20%	2D6	1	20m	150	—	impales
		magnum	20%	2D6+4	1	20m	250	—	impales
	Rifle	light rifle	20%	2D8	1	200m	100	—	impales
		heavy rifle	20%	2D8+4	2	200m	180	—	impales
	Flechette	light shotgun	30%	2D8	1	20m	180	—	—
		heavy shotgun	30%	4D8	2	20m	220	—	—
	Autogun**	light assault	20%	4D6	1	30m	400	—	impales
		heavy assault	20%	4D6	3	200m	750	—	impales
	Support**	semi-portable	20%/5%	5D6	7	300m	2000	—	impales
Laser	Hideout	flasher	20%	1D6	¼	10m	100	1	—
	Handgun	light pistol	20%	1D8	½	60m	150	2	—
		heavy pistol	20%	1D8+2	1	60m	150	2	—
		magnum	20%	2D6+2	1	60m	250	3	—
	Rifle	light rifle	20%	2D6	1	300m	100	3	—
		heavy rifle	20%	3D6	2	300m	180	4	—
	Autogun**	light assault	20%	2D6	1	100m	400	2	—
		heavy assault	20%	2D8+4	3	300m	750	4	—
	Support**	semi-portable	20%/5%	3D8+1	7	300m	2000	6	—
Blaster	Hideout	blazer	20%	2D8	½	3m	120	3	—
	Handgun	light pistol	20%	1D10+3	½	10m	150	3	—
		heavy pistol	20%	2D8+3	1	10m	150	4	—
		magnum	20%	2D10+4	2	10m	250	4	—
	Rifle	light rifle	20%	2D8+3	2	60m	150	4	—
		heavy rifle	20%	2D10+4	3	60m	200	5	—
	Autogun**	light assault	20%	2D8+3	2	20m	400	4	—
		heavy assault	20%	3D8+6	4	60m	800	5	—
	Support**	semi-portable	20%/5%	5D8	7	100m	2400	7	—
Missile	Support	guided missile	20%	5D8	2	LOS†	1800	—	—
		seeker missile	NA	3D8	3	LOS†	2500	—	—
Grenade	Throw	concussion	45%	3D6	½	15m	300	—	3m radius
		fragmentation	45%	4D6	½	15m	300	—	6m radius
		photon	45%	††	½	15m	600	—	10m radius
Melee	1-Hand	force sword	10%	2D10	½	—	1000	3	—

see ENC rule.
** *Autoguns and Support guns can fire one shot or a burst of three shots at the discretion of the character. If firing a burst, roll 1D3 to see how many hit. If an impaling roll is made, only the first bullet impales.*
† *LOS means line of sight; the target must been seen to be fired at with these missiles.*
†† *A photon grenade blinds anyone within the specified radius for 1D6 melee rounds unless the attacked character makes a luck roll. Special equipment and circumstances may modify this result at the discretion of the referee.*
Range — all ranges given are in meters.
Energy Used — the weapon must use this many points from a tacpack generator if the user is not discharging the regular ammunition. The energy cost is per shot: an Autogun or Support gun firing three shots must use three times the energy shown.
Semi-portables — the semi-portable's base chance is 20% if on a tripod or other mount; 5% if hand-held.