

Terminal Space



Science fiction & Science Fantasy supplement
for any Old School gaming system

TERMINAL SPACE



Science Fiction and Science Fantasy supplement
for 1974 role-playing game

Version 1.4

Terminal Space – additional rules for world's first role-playing game. Usable with any old-school rules-lite system.

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INTRODUCTION

The materials below were mostly produced by me between 2009 and 2010. In the beginning they were to comprise a separate game partially based on simplified Moldvay / Cook edition of the game and partially on my own solutions. After some thought I came to the conclusion that my works would be better suited as supplements for the Original Edition.

The aim of this publication is to add a new rule set to help transfer the game to an entire new dimension which is space exploration. Thus these additional materials were created with the thought of settings more heavily based in Sci-Fi and Science Fantasy genres than most of the materials created for 0e so far. Even though this supplement is not complete I hope that somebody will find it useful.

A. R., 2010-04-02

Other games that I recommend to get acquainted with:

Encounter Critical, S. John Ross 2004

Gamma World, TSR 197?

Mutant Future, Goblinoid Games 2008 (*In case you fail to find the above-mentioned*)

Space Patrol, Gamescience Corporation 1977

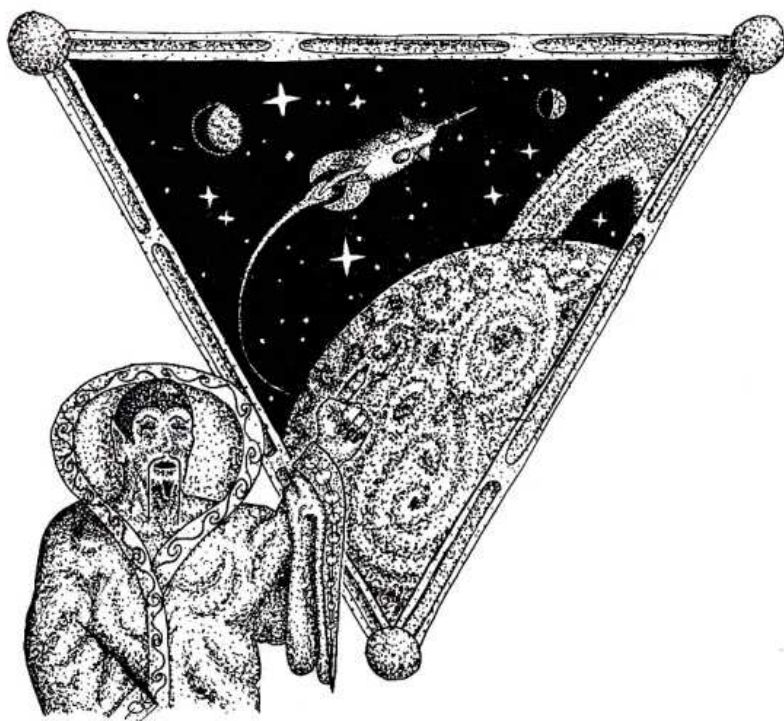
Classic Traveler (books 1-3), Game Designers' Workshop 1977

Mongoose Traveler, Mongoose Publishing 2008

<http://www.terminalspace.blogspot.com>

FIGHT ON!

MEN & MAGIC



TECH LEVEL – ADDITIONAL ABILITY

Technology Level reflects the degree by which the character is familiar with advanced (or primitive) technology as well as its inbred predisposition for using what the world has to offer. This ability does not have a major impact on game mechanics though it allows the game to become a little bit more interesting by showing how different can the origin worlds of characters be.

Tech Level	Description	Starting Credits
3 – 5	Caveman. Character can use only the simplest of tools and primitive weapons such as batons, clubs, spears or stones. Modifier -1 / -10% for interactions with modern technology, -2 / -20% for interactions with more advanced technology.	3d6
6 – 8	Barbarian. Character should be able to handle primitive technology although it is rather unlikely that he will understand the means by which kinds of advanced equipment work. Modifier -1 / -10% for interactions with advanced technology.	3d6x5
9 – 12	Modern Man	3d6x10
13 – 15	Highly Advanced. Character has grown in a world where every technological achievement allows a comfortable and near effortless life. Modifier -1/-10% for interactions with primitive tech.	3d6x15
16 – 18	Star Child. The level of technology and civilization from where the character comes is so high that the ways to use simple tools have been forgotten due to near exclusive reliance on extremely high tech solutions. Modifier -2/-20% for interactions with primitive tech and -1/-10% for modern age tech.	3d6x20

SKILLS

To keep the spirit of the game for which this supplement was prepared, no dice roll based abilities should come in the way of players ingeniousness and quick wits. Despite that, three abilities that possess influence on the game were introduced on which the players should not (or cannot have) any notion of. Therefore matters frequently too complicated for many a modern man such as space vessel repair, piloting and performing complicated analysis have gained a quite viable and logical solution.

Despite that, if a player sees a solution to a problem that can be accepted by the Referee even though the character does not possess the appropriate skill or its level is too low then the skill check can be omitted. Any solutions created by the players should have a priority over the game mechanics but the final decision is up to the Referee.

The maximum level of the skills below is 95% to mark the fact that even the best can make mistakes.

Pilot: used while controlling a space faring vessel, be that a small, one man fighter or a gigantic battle cruiser carrying hundreds of crew. Pilot tests are carried out during atmospheric entry, dodging ordnance or maneuvering in difficult conditions (moving through asteroid belts, space hulk cemeteries, etc).

Repair: acts both as a means to bring back a device to functionality or for reverse engineering. Science skill should also come in handy here. Repair tests **should not** be carried out to disarm a trap or for unlocking a door.

Science: this skill does not reflect the characters ability to learn, but its knowledge about more scientific matters like physics, chemistry, biology and the such. Science can be tested while carrying out research on unknown life forms, setting a course for jump drives or determining the way by which alien artifacts actually work. It's up to the Referee to allow the test In certain situations, for instance if there is a lever coming out of the wall with the rest of the device obscured behind it then no matter how high is the science skill. There is no possible way to determine what is it actually going to do.

Weapon Systems: a skill that allows the use of more or less complicated weapon systems mounted on space faring vessels. Any civilian cannons or lasers which are usually more suitable for fending off the attackers, rather than real fighting, belong to this class along with the mighty plasma cannons or torpedo launchers carried by ships of the line that can cripple a planetoid with a single salvo. Due to a different class profile Scientists, Clerics and Magic users do not posses this skill at all.

Skill increase for basic character classes

Tables below can be used for determining skill levels for three basic character classes:

Pilot

Level	Fighting Man	Magic User	Cleric
1	—	—	—
2	—	—	—
3	1%	—	—
4	2%	1%	1%
5	5%	2%	2%
6	8%	3%	3%
7	12%	4%	4%
8	17%	5%	5%
9	22%	7%	7%
10	27%	10%	10%

Repair

Level	Fighting Man	Magic User	Cleric
1	—	—	—
2	1%	—	—
3	2%	—	—
4	5%	1%	1%
5	8%	2%	2%
6	11%	3%	5%
7	15%	4%	8%
8	19%	5%	11%
9	24%	7%	15%
10	30%	10%	19%

Science

Level	Fighting Man	Magic User	Cleric
1	—	—	—
2	—	1%	1%
3	—	2%	2%
4	1%	5%	5%
5	2%	8%	8%
6	3%	11%	11%
7	4%	15%	15%
8	5%	19%	19%
9	7%	24%	24%
10	10%	30%	30%

Weapon Systems

Level	Fighting Man	Pilot	Technician
1	—	—	5%
2	—	5%	8%
3	—	7%	12%
4	5%	10%	16%
5	8%	14%	21%
6	12%	19%	26%
7	16%	25%	33%
8	21%	32%	40%
9	26%	40%	50%
10	33%	50%	60%

NEW CHARACTER CLASSES

Additional character classes were introduced into Terminal Space due to the relation with new gaming aspects unavailable in OD&D. These are the Pilot, Technician and Scientist classes.

Pilot

Pilots are people who are brave (or dumb) enough to spend their lives doing one of the hardest and dangerous jobs possible, which is piloting a spacecraft. Most of them die young, be that of pirate raids or by vanishing in unknown sectors. But those who thanks to the skill (or luck) survive, quickly gain renown.

- DEX is the Prime Requisite for a Pilot;
- Pilots do not receive -10% to Pilot test while handling a fighter.

Level	Rank	Req. Experience	Dice for Accumulative Hits	Pilot	Repair	Science
1	Cadet	—	1	25%	—	—
2	Rookie	2000	1+1	30%	1%	—
3	Pilot	4000	2	35%	2%	—
4	Wingman	8000	3	40%	5%	1%
5	Veteran	16000	3+1	48%	8%	2%
6	Instructor	32000	4	56%	11%	3%
7	Wing CO	64000	5	65%	15%	4%
8	Flight CO	120000	5+1	75%	19%	5%
9	Ace	240000	6+2	85%	24%	7%
10	Force Commander	480000	7+3	95%	30%	10%



Technician

Technicians form the heart of every vessel and on many occasions it has been proven that if not for their skill and knowledge of the machine, the whole crew would have been doomed. They are trained in the use of the vessels weapon systems which makes them a vital part of any military operation or even a simple expedition.

- DEX is the Prime Requisite for a Technician;

Level	Rank	Req. Experience	Dice for Accumulative Hits	Pilot	Repair	Science
1	Novice	—	1	1%	15%	—
2	Student	2250	1+1	2%	20%	—
3	Assistant	4500	2	5%	25%	—
4	Machinist	9000	2+1	8%	30%	1%
5	Technician	18000	3	12%	40%	2%
6	Chief Mechanic	36000	3+1	17%	50%	5%
7	Engineer	70000	4	22%	60%	8%
8	Master Engineer	120000	5+1	27%	70%	11%
9	Inventor	200000	6+2	35%	80%	15%
10	Artificer	270000	6+3	44%	90%	19%

Scientist

Scientists dedicate their lives for the purpose of broadening the humanities knowledge base. Fighting with alien life forms that inhabit the universe or the urge to explore, typical to so many explorers and travelers is unfamiliar to them. Scientific research is the only thing that they have in mind but this can bring tremendous wealth and recognition.

- INT is the Prime Requisite for a Scientist.

Level	Rank	Req. Experience	Dice for Accumulative Hits	Pilot	Repair	Science
1	Student	—	1	—	1%	10%
2	Apprentice	1800	1+1	—	2%	15%
3	Teacher	3600	2	—	5%	25%
4	Scholar	7200	2+1	1%	8%	35%
5	Savant	14400	3	2%	12%	45%
6	Magister	28800	3+1	3%	17%	55%
7	Doctor	50000	4	4%	22%	65%
8	Loremaster	100000	5+1	5%	27%	75%
9	Sage	200000	6+2	7%	35%	85%
10	Grandmaster	300000	6+3	10%	44%	95%

Mi-go

The fungi from Yuggoth, an alien race created by H. P. Lovecraft, are upright walking pinkish creatures, the size of men. They resemble crustaceans with large dorsal wings and several sets of segmented limbs ending with lobster-like claws. Their heads are a ball shaped brain mass of short antenna structures with which they communicate by changing their colors. They can speak terrestrial tongues with a buzzing intonation. They cannot ingest human food and must import or create food native to their worlds. Mi-Go are not wholly animal, fungus or something else but a strange combination of all three.

Mi-go are completely resistant to the void of space, they are able to fly in this kind of environment by means of their wings. Flights in atmospheric environments are difficult to them.

Ability adjustments

If seen fit by the *Referee* Mi-go statistics can be modified although it is not necessary. Due to inhuman appearance of the species Charisma of the Mi-go can be decreased by 1 or 2 points and due to the fact that the fungi from Yuggoth are a lot more advanced than humans the Tech Level can be increased as well.

Level	Rank	Req. Experience	Dice for Accumulative Hits	Pilot	Repair	Science
1	Drone	—	1	1%	1%	—
2	Worker	2500	1+1	2%	2%	1%
3	Scout	5000	2	5%	5%	2%
4	Guardian	10000	2+1	10%	10%	5%
5	Elder	20000	3	20%	20%	10%
6	Engineer	40000	3+1	30%	30%	20%
7	Hive master	60000	4+1	40%	40%	30%
8	Overseer	120000	5+1	50%	50%	45%
9	Overlord	250000	6+2	60%	60%	60%
10	Overlord	500000	7+3	75%	75%	75%

Spell level

Mi-go are capable to learn Magic User spells. However, they are restricted to level 4 spells:

Level	1	2	3	4
1	—	—	—	—
2	—	—	—	—
3	1	—	—	—
4	1	1	—	—
5	2	1	—	—
6	3	2	—	—
7	3	2	1	—
8	4	3	2	—
9	4	4	2	—
10	5	4	2	1
11	5	4	3	2
12	5	5	4	3

Saving throws

Treat Mi-go as Magic User.



EQUIPMENT

Below you will find a list of additional, more technically advanced equipment than in basic D&D. Any remarks on specific items can be found on the bottom of each list. Suggestions of highly advanced weaponry can be found at the end of each chapter. Weight of the equipment has also been provided.

Currency calculator

All prices below have been provided in Credits. Despite that it is possible that during the voyage the characters will encounter a region either so secluded or primitive that the currency will be unknown. Some of such cultures can use Gold Coins (GC) or other currency determined by the Referee. To simplify it can be assumed that one Credit equals one Gold Coin.

Weapons and armor

Melee weapons

Name	Price	Weight
Mono knife	46	0,5 kg
Mono sword	69	1 kg
Crystal axe	320	7 kg
Laser sword	260	0,5 kg
Phase Sword	800	2 kg
Cybernetic arm	450	—
Military cybernetic arm	750	—
Gravhammer	700	4 kg

Ballistic weapons

Name	Range	Price	Weight
Flintlock pistol	25 m	16	1 kg
Musket	45m	29	3 kg
Automatic pistol / revolver	50 m	28	1 kg
Rifle	125 m	42	2 kg
Shotgun	40 m	36	2,5 kg
Assault rifle	300 m	50	4 kg
Heavy machine gun	500 m	76	12 kg
Laser pistol	150 m	180	1,5 kg
Laser rifle	250 m	300	5 kg
Plasma rifle	75 m	460	7 kg
RPG launcher	300 m	215	11 kg
Needle rifle	5 m	66	0,5 kg
Flamethrower	8 m	90	18 kg
Acid jet	6 m	295	16 kg
Grav rifle	65 m	1300	9 kg
Phase lance	600 m	2100	13 kg
Mi-go blaster	150 m	3000	2,5 kg
Molotov firebomb	Throw	2	1 kg
Grenade, primitive	Throw	3	0,5 kg
Grenade, modern	Throw	9	0,5 kg
Grenade, plasma	Throw	17	0,5 kg

Armor

Name	AC	Price	Weight
Bulletproof vest	6	130	7 kg
Cyborg armor	4	650	20 kg
Void suit	7	400	30 kg
Armored void suit	6	680	50 kg

Name	AC	Price	Weight
Force shield generator	5	1300	1 kg
Gravity distortion generator	4	975	1,5 kg
Alien shield generator	3	4000	0,5 kg
Phase shield generator	–	3340	2 kg

Void suits allow breathing and long exposure to vacuum of space.

Bulletproof vest does not protect from damage dealt with bows and crossbows.

Phase shield generator completely protects from phase weaponry.

Basic equipment

Modern

Name	Price	Weight
Backpack (capacity 25 kg)	6	1 kg
Pocket flashlight	4	0,1 kg
Flashlight	7	0,5 kg
Petrol lighter	2	0,1 kg
Bottle of wine (1l)	2 – 500	1,2 kg
Bottle of vodka (0,5l)	1	0,5 kg
Rope (10m)	17	2 kg
Drop harness	11	2 kg
Alpinist tent (2 ppl)	8	3 kg
Military tent (10 ppl)	18	18 kg
Pistol ammo (100)	4	0,5 kg
Shotgun ammo (100)	5	0,5 kg
HMG ammo (100)	5	1 kg
Rifle ammo (100)	5	1 kg
RPG missile	23	2,5 kg
Flamethrower canister	11	4 kg
Pocket-knife	2	0,1 kg
Entrenching tool	3	1,5 kg
Electric saw	14	5 kg
Signal flare	3	0,1 kg
Roll of duct tape (2)	1	0,1 kg
Space blanket	7	1 kg
Writing kit	3	0,2 kg
Life jacket	9	2 kg
Tourist rations (7 days)	6	4 kg
Military rations (7 days)	10	3 kg
Scuba diving kit	31	15 kg
UHF	9	0,1 kg
Police handcuffs	12	0,1 kg
Compass	6	0,1 kg

Flamethrower canister contains enough fuel to shoot approximately five times.

Advanced

Name	Price	Weight
Laser lighter	16	0,1 kg
Grav belt	90	2 kg
Void tent (2 ppl.)	65	2 kg
Void tent (8 ppl.)	150	9 kg
Ration tablets (7 days)	20	0,1 kg
Heat blanket	22	0,2 kg
Magnetic hook	18	1 kg
Mono rope (10m)	45	1 kg

Name	Price	Weight
Gill mask	72	0,5 kg
Acid jet canister	22	4 kg
Needle rifle darts (100)	30	0,1 kg
Grav rifle cell	60	2 kg
Laser pistol cell	36	0,5 kg
Plasma rifle cell	54	2,5 kg
Laser rifle cell	48	1 kg
Phase lance cell	74	2 kg
Grav handcuffs	21	0,1 kg
Plasma torch (24h)	25	0,2 kg
Micro transmitter	30	0,1 kg
Folding pole / antenna (5m)	16	0,5 kg

Energy weapon cells contain enough energy to last for 10 shots.

Services and travel

Name	Price
Medical care (1 day)	3
Inn room (foul)	1
Inn room (luxury)	2
Day in a luxury hotel	10
Sound meal	5
Feast for 20 people	40
Removing a curse	150
Implantation of cybernetics	30+
Stage-coach (1 person per kilometer)	1-3
Travel by train (1 person / 10 km)	2-4
Travel by freighter (1 person, parsec)	8
Travel by luxury liner (1 person, parsec)	25

Transport

Name	Price	Weight
Bike	10	8 kg
Quad	95	350 kg
Grav scooter	650	475 kg
Foldable hang glider	80	24 kg
Ultra light trike	110	38 kg
Jet chaser	1650	800 kg

Mounts, beasts of burden and primitive vehicles can be bought on backwater worlds.

Advanced weaponry ideas

Here are some ideas that can be used in case of using advanced weaponry mentioned above. These weapons are generally a great deal more powerful and deadly than those available in typical fantasy settings.

- Mono swords and knife can ignore the AC of light armor such as void suits or primitive leather armor etc.
- Phase weapons due to their specific properties can ignore AC of commonly used armor, but it is possible that it will have no effect on natural armor made of bone or carapace of beasts.
- Grav weapons do not work in places devoid of gravity. They can also decrease armor effectiveness.
- Automatic weapons, e.g. assault rifles or HMGs are able to hit more than one opponent.
- Flamethrowers, acid jets and fire bombs can cause damage for more than one round (e.g. d6 rounds).

- Needle pistols are very easy to hide, darts usually are coated with a toxin that paralyzes or kills the target. A successful hit from the weapon should not cause more than 1-2 points of damage.
- Mi-go blaster does not require ammunition. It charges by itself after depleting the cell which usually takes a few hours.
- Instead of increasing the damage caused by powerful weaponry like lasers or plasma weapons you can roll a bigger amount of dice (Referee's decision) and keep the highest score.

SCIENCE AND DISCOVERIES

Discoveries of ancient technologies, created either by the alien or humanity in the times of long forgotten past can come with a reward in experience points given by the Referee. The same comes with publications created on the subject of newly encountered beings or worlds. Of course creation of a proper publication requires certain data to be collected e.g. sample analysis and in case of new species – carrying out an autopsy. These activities are of course very time-consuming and expensive but because of the great diversity of species inhabiting the universe and their creations there are no given directives for time and costs that are to be spent on research. Access to science labs can in some cases speed up the process but keeping a well supplied lab may have an impact on the costs. The amount of experience points given for this kind of activities can be higher than for slaying a monster or finding a treasure. This of course depends on the weight of the discovery. For instance the discovery of a mutated breed of semi-intelligent cockroaches inhabiting an abandoned space station placed in the most remote area in the sector can be rewarded with several dozen EP. On the other hand coordinates of planet that has been forgotten for thousands of years that is habitable and is literally littered with ruins left by an unknown, intelligent civilization can be rewarded with several thousand EP not even taking into account how valuable such information could be.

ATTACK MATRIX - TABLES

Presented below are a bit more legible (I hope) attack matrix tables from page 19 of Men & Magic with taking the additional classes of Terminal Space under account.

Fighting-man

Armor Class	d20 score to Hit / Level					
	Level 1 – 3	Level 4 - 6	Level 7 - 9	Level 10 - 12	Level 13 - 15	Level 16+
2	17	15	12	10	8	5
3	16	14	11	9	7	4
4	15	13	10	8	6	3
5	14	12	9	7	5	2
6	13	11	8	6	4	1
7	12	10	7	5	3	1
8	11	9	6	4	2	1
9	10	8	5	3	1	1

Cleric, Pilot, Technician

Armor Class	d20 score to Hit / Level				
	Level 1 – 4	Level 5 - 8	Level 9 - 12	Level 13 - 16	Level 17+
2	17	15	12	10	8
3	16	14	11	9	7
4	15	13	10	8	6
5	14	12	9	7	5
6	13	11	8	6	4
7	12	10	7	5	3
8	11	9	6	4	2
9	10	8	5	3	1

Magic User, Scientist

Armor Class	d20 score to Hit / Level			
	Level 1 – 5	Level 6 - 10	Level 11 - 15	Level 16+
2	17	15	12	10
3	16	14	11	9
4	15	13	10	8
5	14	12	9	7
6	13	11	8	6
7	12	10	7	5
8	11	9	6	4
9	10	8	5	3

SAVING THROW MATRIX

Fighting-man, Pilot

Level	Death / Poison	All Wands	Stone	Dragon Breath	Staves & Spells
1 – 3	12	13	14	15	16
4 – 6	10	11	12	13	14
7 – 9	8	9	10	10	12
10 - 12	6	7	8	8	10
13+	4	5	5	5	8

Cleric

Level	Death / Poison	All Wands	Stone	Dragon Breath	Staves & Spells
1 – 4	11	12	14	16	15
5 – 8	9	10	12	14	12
9 – 12	6	7	9	11	9
13+	3	5	7	8	7

Technician, Scientist

Level	Death / Poison	All Wands	Stone	Dragon Breath	Staves & Spells
1 – 4	11	13	14	14	16
5 – 8	9	11	12	12	14
9 – 12	6	9	9	9	12
13+	3	7	7	6	10

Magic User, Mi-go

Level	Death / Poison	All Wands	Stone	Dragon Breath	Staves & Spells
1 – 5	13	14	13	16	15
6 – 10	11	12	11	14	12
11 – 15	8	9	8	11	8
16+	5	6	5	8	3

NEW SPELLS

EMP Bolt (Magic User 3rd level): Very similar to Lightning Bolt, but it works only against robotic / electronic / cybernetic beings and devices, and it deals 2 more damage dice. Against any other monsters it deals only 1d6 damage. Range: 24".

Signal Jam (Magic User 3rd level): Creates a "cloud of interferences", disrupting functions of any robotic sensors, alarming systems or cybernetic senses. Duration: 12 turns. Range: 10" radius.

Delude Sensors (Magic User 3rd level): Alters the appearance of the space vessel, but it only can cheat electronic sensors (it doesn't work on living beings). Caster can increase (or decrease) readings of ship size, r shield generator class, but only by one "size" (i.e. FR ship can mimic CR or SF vessel). Alternatively, the vessel can be hidden as an ordinary asteroid, but only if its drive, shield generators and weapons are shut down. Duration: 6 space combat rounds (60 minutes).

Alter Gravity (Magic User 4th level): Caster can either reverse gravity in his or her surroundings (10" radius), or alter it, creating or disabling gravity. Duration: 6 turns.

Control Robot (Magic User 4th level): Similar to Charm Person or Charm Monster, but can be used against any robotic beings, such as cyborg guards, industrial robots etc. Range: 12".

Destroy Robot (Magic User 4th level): Capable to deal massive damage to any robotic machine – it deals 2 dice of damage per caster's level. It causes no damage to any other monsters. Range: 12".

Void Breathing (Magic User 4th level): Has identical effect as Breathe Water, but it allows breathing in places without atmosphere. Duration: 12 turns. Range: 3".

Space Walk (Magic User 5th level): In addition to the effect of Void Breathing (see above), grants immunity to all effects of space void, such as cold and radiation. Duration: 12 turns. Range: 3".

Haste Ship (Magic User 5th level): If cast during space combat, it increases ships' speed by one hex per round. Duration: 6 space combat rounds (60 minutes).

Stealth (Magic User and Cleric 5th level): hides the space ship, preventing its discovery. Only amplified sensors (or magical methods of search) can discover the enchanted vessel. In addition, Stealth spell works only on immobile ships or vessels travelling at travel speed.

Machine Control (Magic User 6th level): Allows to control any electronic / mechanical device, as long as it has any electronic / cybernetic elements, i.e. ship sensors, robots, and even tanks or other military vessels. The only disadvantage is that the spell effect lasts an hour. Range: 12".

Space Portal (Magic User 6th level): Creates an immense interstellar gate, big enough to contain a capital ship. This allows travel up to one parsec (one map hex). Duration: 6 space combat rounds (60 minutes).

Nebular Sight (Cleric 3rd level): Allows to sense (not to see via sensors) any objects hidden in nebulae and other sensor-interfering conditions, such as spaceships, asteroid belts, mine fields and so on. Range of Nebular Sight is 1000 kilometers for each caster's level. Duration is one hour.

Speak With Machines (Cleric 5th level): This spell is similar to Speak with Plants, but allows the caster to communicate with any machines and devices. It does not include primitive or simple tools and machines, such as shovels, windmills or ordinary doorways.

Martyr's Shield (Cleric 5th level): Allows the Cleric to absorb damage caused to vessel, covering it with mystical barrier. First Critical Hit effect is ignored. Instead it deals 3-18 damage to the caster of Martyr's Shield. Range: whole ship on which the Cleric is. Duration: until first critical damage (or 24 hours).

MONSTERS & TREASURE



CREATURE CREATION AID

Basic monster features

This table can help you in determining the general look of a being created this way.

Roll d20	Shape / Form of body
1	Shapeless (amoeboid)
2 – 3	Snake/wormlike
4	Cephalopod
5 – 9	Quadruped
10 – 11	Insectoid
12 – 15	Humanoid
16 – 17	Bipedal (non-humanoid)
18	Tree-like
19	Spherical
20	Polyhedral

Example of a beings diet (if in need of a varied diet the *Referee* can roll several times):

Roll d20	Creatures Diet
1	Parasitic
2 – 5	Herbivore
6 – 12	Omnivore
13	Scavenger
14 – 17	Carnivore
18	Exotic – minerals etc.
19	Exotic – metals
20	Creature does not need to feed

Natural habitat:

Roll d20	Natural habitat
1 – 2	Water
3 – 4	Amphibious
5 – 7	Forests, jungles
8 – 9	Steppes, deserts
10 – 13	Temperate zones
14 – 15	Tropical zones
16	Nomadic being
17 – 18	Underground
19	Arctic circle
20	Void of space

Features of an intelligent being

Most features of beings blessed with intelligence can be determined by creature creation tables. Below you can find tables with will help establish the degree of intelligence. However, the technological advancement can be determined identically as with the player characters tech level by making a 3d6 roll on the Tech Level table at the beginning of this supplement.

Roll d20	Intelligence
1	Rudimentary, allows the use of only most basic tools
2 – 3	Retarded human or a small child
4 – 6	Stupid human
7 – 14	Average human intelligence
15 – 17	High intelligence
18 – 19	Human genius
20	Intelligent beyond human comprehension



ADDITIONAL MONSTERS

Type	Number Appearing	Armor Class	Move in Inches	Hit Dice	% In Lair	Treasure
Cyborg Assassin	1 – 6	4	9	6	25%	Nil
Magnetic Ooze	1 – 8	8	1	4	Nil	Nil
Blue Ice	1	5	3	9	100%	Type I
Devil Rat Dog	1 – 20	4	12	1	50%	Type C
Crystal Spider	3 - 30	2	6	3	100%	Type I
Bubblebeast	1 – 4	6	6	2 - 10	Nil	Nil

CYBORG ASSASSINS: Used as guards or an extermination force. They are equipped with built-in weapons, usually machine guns or flamethrowers. Note that their arms are treated as military class cybernetic arms. Alignment is always Neutral.

MAGNETIC OOZE: It feeds off of metal parts from spaceship wrecks. It is immune to all non-magical melee weapons, cold (including void of space) and lightning. Its magnetic ability can “steal” most metal objects, which – can be found inside of its body after killing it, since digestion of metal objects takes some time.

BLUE ICE: It look like several square meters covered with fat layer of glowing blue ice. It's capable of movement, but is unlikely to do so. It can attack d4 targets during single turn. Blue ice is immune to cold and void effects, but the nature of its body makes it vulnerable to fire. It regenerates d6 HP per round.

DEVIL RAT DOGS: Small, horribly smelly beasts. They are capable of generating clouds of poisonous, stinking clouds (9 cubic meters, save vs. Poison or d6 HP loss, same effect caused by Devil Rat Dog's bite). Immune to poison, alignment is always Chaotic.

CRYSTAL SPIDERS: These child-sized spiders have their carapace covered with tiny, but very hard, crystals, making them difficult to kill. Crystal spider deals 1-6 damage in addition the bitten target must pass a save roll vs. Poison or become paralyzed for 4-24 minutes. Crystal spider's carapace shards are worth 10-100 Credits.

BUBBLEBEASTS:

Weird, glowing creatures resembling opaque spheres or soap bubbles interconnected with each other. They are able to exist in the void of space and it makes them completely resistant to cold. If a single attack deals 6 or more damage to it than the bubblebeast divides into two smaller creatures with their HD divided by two (rounding up). Bubblebeasts cannot live in any gravity, so weapons like graviton guns, gravhammers or spells like Alter Gravity kills them instantly.

TREASURE

Below you will find a table that can be helpful in determining the treasures found in certain creatures lairs.

d6 + HD	Credits / gold	Common items	Valuable items	Weapons*	Artifacts
2	-	-	-	-	-
3	50% chance for d4	-	-	-	-
4	d4	-	-	-	-
5	d6	-	-	-	-
6	d8	25% chance for 1	-	-	-
7	d10	50% chance for 1	-	-	-
8	2d6	d4-1	-	-	-
9	2d8	d4	-	25% chance for 1	-
10	2d10	d6	-	50% chance for 1	-
11	d6x5	d8	-	d4-1	-
12	d8x5	d10	1	d4	-
13	d10x5	2d6	d4-1	d6	-
14	d6x10	2d10	d4	d8	-
15	d10x10	2d10	d6	d10	25% chance for 1
16	d6x50	Referee's discretion	d8	d4*	50% chance for 1
17	d10x50	Referee's discretion	d10	d6*	1
18	d10x100	Referee's discretion	2d6	d8*	d4-1
19	d10x500	Referee's discretion	2d10	d10*	d4
20	d10x1000	Referee's discretion	2d10	d10*	d6
21	d10x1000	Referee's discretion	2d10	d10*	d8
22	d10x1000	Referee's discretion	2d10	d10*	d10

Asterisk (*) mark means that in this case the weapon should be of a special kind (finely crafted, ceremonial, etc.) or of an advanced kind.

Referee can use gold coins (in most cases they should fit the situation quite well) or commodities of value determined by the table above instead of credits (typical paper notes or coins) found in the creatures lair.

Common items: this point needs no explanation.

Valuable items: these can be gem stones, works of art or personal belongings ornamented with expensive materials. Average value of such is 10-1000 Credits.

Weapons: the tech level of such objects found in the lair should mirror the surroundings. A beast living on a swamp is more likely to surround itself with primitive weapons of local inhabitants unlike a creature dwelling on an abandoned space station that prowls the dark corridors to hunt the careless and unwary space travelers that disturb its nest.

Artifacts: these can be made by mankind, from times long past which hold a great value, magical tomes or items endowed with power or an object (including weapons) created by the alien which knowledge and abilities that quite often surpassed the ones of humans.

Additional magical items and Artifacts

Potion of Stupidity: If drank permanently decreases percentile skills by d10% (roll for each separately).

Potion of Fury: Increases the chance to hit opponents by 2 points but the AC grows with it as well. Works for 3d10 minutes.

Potion of Knowledge: Permanent increase of Science skill by d10%.

Star Spear: An ancient phase lance of great power. Deals 1 point of damage more and can be used as a phase sword in close combat.

Key of Opening: A magical silver key that allows any kind of non-electronic lock to be opened. Turns into dust after d4 uses.

Space Mead: D6 portions of a substance that allows the user to withstand the vacuum of space without any problems for 12 hours per portion. Magic users probably do posses a way to use it in more effective ways.

Ice Crystal: If carried touching the body it halves the damage dealt by low temperatures but fire damage is increased by one.

Power Crystal: A fuel cell of unknown origin. Power produced by it is sufficient to power the vessels computer or be used as a fuel source for power armors, etc. The crystal provides virtually endless amounts of energy.

Fire Crystal: Works like the Ice Crystal item but with obvious effect changes

Crystal of Knowledge: A cubical block that serves as a means for encoding large amounts of information. It can contain a treasure map, information about forgotten locations or even coordinates to undiscovered worlds.

Magnetic Lance: It allows the user to move metal objects of maximum weight of 2 kilograms. Range 5 meters. Used in close combat adds +1 to damage rolls but only against cyborgs and robots.

Personal shield generator: Sometimes incorporated into amulets, tiaras or finely crafted belts. It surrounds the wearer with a protective shield that works identically like ones mounted on space vessels. To determine the effectiveness of the item Referee should consult the table below.:

Roll d20	Generator effectiveness
1 – 13	20%
11 – 14	30%
15 – 17	40%
18 – 19	55%
20	75%

Antigravity ring / amulet: It allows the wearer to float one meter above ground. It does not protect from falling into holes, crevices or pit holes but the user stops a meter above ground not receiving any damage.

Ring / amulet of Pain: Cursed artifact. As long as it is worn the wounds do not heal. If worn with ring / amulet of Healing the effects nullify each other.

Ring / amulet of Suffering: Cursed artifact. Damage taken is 1 point higher.

Ring / amulet of Healing: Wounds heal themselves two times faster.

Ring / amulet of Weakness: Cursed artifact. Decrease STR to 3.

Ring / amulet of Dreadful Summoning: Cursed artifact. When used it immediately summons a random creature of d6 HD. Every day when worn there is a 1% chance of summoning an identical beast.

Brain in Jar: Created by the Mi-Go, a steel container with a human brain inside. *Referee* should determine the owner of the brain, if he does not have anything "special" in mind for the poor fellow, then the jars inhabitant is:

Roll d20	The owner of the brain is...
1 – 3	...an ancient warrior
4 – 7	...a mad scientist
8 – 11	...a mad mage
12	...a child
13 – 15	...a member of a long lost civilization
16	...a human from medieval earth
17 – 20	...an alien ambassador

There is a 25% chance that there will be peripheral devices found with the canister that enable contact with the brain.

Opening Sphere: Opens any electronic lock if held against it. Does not work on conventional locks.

Sphere of Clairaudience: Allows the user to hear the sounds coming from nearby compartments in 10 meter radius as long as the walls are not thicker than 2 m.

- Light Sphere:** Generates a dim light similar to a torch in intensity. Stops glowing after d100 years.
- Translation Sphere:** Held against the ear translates almost all languages (99% Chance)
- Warning Sphere:** Hums quietly if there is a hostile being in 10m radius.
- Annihilation Cube:** A transparent, cubical box with 30cm long sides with one of the sides missing. Whatever is put into it ceases to exist. Works on living organisms and body parts.
- Static Cube:** A cubical box made of an unknown material of 5d20cm sides. No time exists inside of the box. Living beings do not age, food does not decompose. There is a 5% chance that there is an object / a living being inside (Referee's discretion).
- Glowing Trapezohedron:** A weird crystal of unknown origin held inside a metal box. A look into the gem gives a vision of far away, alien places and worlds. Looking at the crystal is not dangerous, closing the box, if in the dark, will summon an avatar of an Outer God - Nyarlathotep (HD 14 AC2 wounds 2d6).
- Sign of the Elder Gods:** Confers a +1 bonus on defense rolls against magic. It deals 2d6 points of damage to beings related to the Cthulhu mythos but is then destroyed.

The nature and origin of artifacts

The description of majority of the artifacts mentioned above have been omitted so the *Referee* can determine their origin themselves. The table below can help establish them by random:

Roll d20	Origins and nature of the object
1 – 3	Created by man, forgotten technology
4 – 17	Alien technology
18 - 20	Magic item*

(*) nature of certain items such as Glowing Trapezohedron, Sign of the Elder Gods or the Key of Opening is obvious. Magic items from *Monsters & Treasure* were treated in a similar way.



UNDERWORLD & WILDERNESS ADVENTURES



SECTOR CREATION

Referee should begin creating the campaign by creating a sector. The sector is small part of the galaxy with a hexagonal net covering it, where one hex equals one parsec (3,26 light years). Basic version of a map is made up of 8 x 10 hexes. Nothing stands in the way to increase or decrease the scale to better represent the campaign conditions (for instance if a sector includes a young star then hexes 1 light year long should be more suitable).

Referee should randomly determine the presence of stars in every field (basic chance is 50%), but should not blindly trust the results on this stage of game environment creation as well as on any other stage. If a given result seems absurd or does not fit the conception of the sector then the Referee can modify the rolls according to his needs.

Apart from creation of star systems and other astronomical objects that can have an impact on the game (such as nebulas, black holes, etc.) it is recommended to set up trade routes that bind most important planetary systems, military or pirate controlled regions and any other vital places that can be found in the sector. In some cases a description about the degree of security for each system and/or location should be available for the players.

Notice: Creation of the abovementioned dependencies should be one of the last elements done during campaign creation due to the obvious pointlessness of doing that without significant data.

Types of stars

After determining the presence of stars on the map it is necessary to define what type each one is. To do that roll a d100 and compare the outcome with the table below.

Roll d100	Type of star
01 – 10	Blue giant. A star of such immense size that it generates as much energy per second as our sun does in a year. There is a 50% chance for d12 planets / asteroid belts in orbit around it.
11 – 25	Red giant. A dying star expanded to unimaginable size. Even if there were planets in the system that developed life it is almost certain that they were consumed during the stars growth. 70% chance for d6 objects in its vicinity.
26 – 80	Yellow dwarf. A star resembling our sun in many ways. 75% chance for encountering d10 planets or other objects.
81 – 95	White dwarf. Remains of a nova or a supernova. 95% chance for a nebula in the system, 35% chance for d4 objects that survived the destruction of the star or were created after the explosion.
96 – 00	Neutron star. Unusually small and dense star, remains of a supernova. 75% chance for a nebula in the vicinity, in other cases the nebula is present on the surrounding hexes. 15% chance for d4 objects orbiting around the neutron star.

The next stage for filling up the sector is much more complex and applies to creation of planetary systems (probability of existence in the table above), from determining general features to all significant details.

	Blue Giant
	Red Giant
	Yellow Dwarf
	White Dwarf
	Neutron Star

STAR SYSTEMS

Planet types

Table below can help to determine the type of planets orbiting around stars of every kind:

Class of planet	Blue giant	Red Giant	Yellow dwarf	White dwarf	Neutron star
A	01 – 40	01 – 50	01 – 20	01 – 40	01 – 70
EN	41 – 55	51 – 75	21 – 40	41 – 65	71 – 85
ET	56 – 60	76 – 80	41 – 55	66 – 75	–
G	41 – 80	81 – 90	56 – 75	76 – 95	–
H	81 – 90	91 – 95	76 – 95	–	–
EX	91 – 00	96 – 00	96 – 00	96 – 00	86 – 00

Planet codes should be placed on the hex containing the given star (if possible) or in the description of the system. For simplicity all of the mentioned objects are sorted starting with those that are closest to the star. Here are the meanings of each code:

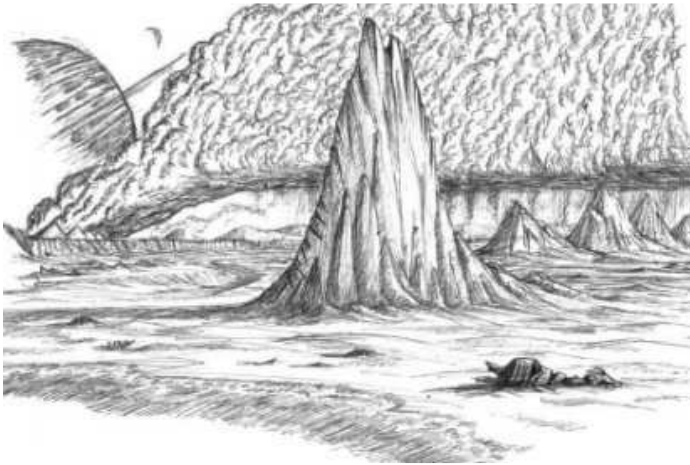
- A – asteroid belt, no planet (50% chance for rock or ice planetoids);
- EN – rocky planet, no atmosphere;
- ET – rocky planet, toxic atmosphere;
- G – gas giant;
- H – rocky planet, habitable;
- EX – exotic planet of unusual atmospheric conditions;

At the start of the game the Referee can treat the detail filling as he sees fit concentrating on the main planet (most likely it will be a H class planet)

Moons

Every rocky planet (class EN, ET, H and EX) has a 50% chance of having d4 moons, every gas giant has an 80% chance of having d20 moons.

Moon	Rocky planet	Gas giant
Rocky, dead	01 – 40	01 – 30
Rocky, volcanic	41 – 55	31 – 45
Ice / covered with ice	56 – 75	46 – 65
Captured planetoid	76 – 95	66 – 70
Ice rings	96 – 98	71 – 95
Habitable	99 – 00	96 – 00



Lands and seas

The table below allows us to determine how much percentile of the surface is covered by seas, oceans and other large water bodies (this applies only to H class planets, because the temperature on EN class planets is too low for unfrozen liquid to exist, and ET does not need to restrict to water, it can be covered by seas of methane, sulfuric acid or other foul substances).

2d6 roll	% of seas and oceans
2	No large water basins
3	10
4	20
5	30
6	40
7	50
8	60
9	70
10	80
11	90
12	Water world, virtually no dry land.

Planet population and density

Tables below are to help in determining the details of H class planets. A great deal of other types of planets is either uninhabited (not counting military and research posts) or on its surface and/or orbit there are space stations present that are described later.

d100 roll	Amount of inhabitants
01 – 05	Never colonized
06 – 10	None – all of the inhabitants either left or died
11 – 15	Several dozens – survivors of a cataclysm / war
16 – 20	Several dozens – elderly / scum
21 – 25	Several hundred
26 – 30	Several thousand
31 – 40	Tens of thousands
41 – 50	Hundreds of thousands
51 – 60	Several million
61 – 75	Tens of millions
76 – 85	Hundreds of millions
86 – 95	Several billion
96 – 00	Tens of billions

Of course if Referee requires an uncolonized world he can ignore the table above or create a new one that would better fit his requirements.

This table can be helpful in determining population density of the planet but obviously it will be useless in some cases (small and big populations).

Roll d100

01 – 10

Inhabitants live scattered on the planet's surface gathering in small settlements.

11 – 75

Inhabitants live both in big enclaves and scattered across their world which depends on the current situation.

76 – 90

Majority of the inhabitants live in big cities.

91 – 00

All of the inhabitants live in gigantic metropolises scattered around the globe, the majority of the planet's surface stays unoccupied.

Tech level

Development level of science and technology of the planet can be determined just as the TL of the character. Of course if planets population is counted in billions of beings, then their survival would not be possible if not for a high level of technology. Therefore Referee can set a TL as he wills if he finds that it would be necessary or omit this part as a whole. Technology advancement doesn't have to be same in every corner of the planet. In some places it can be very high and in the other it can be incredibly low.

Government types and law

Roll d100

01 – 05

Anarchy

06 – 15

Monarchy

21 – 35

Republic

36 – 40

Republic (corrupt)

41 – 45

Democracy (ancient type)

46 – 55

Socialism

56 – 60

Utopia

61 – 70

Corporate law

71 – 80

Theocracy

81 – 85

Junta

86 – 90

AI controlled

91 – 95

Alien controlled

96 – 00

Psychotic

The law should be based on the planets / stations type of government but the table below can be useful to create its foundations.

Roll d100

01 – 10

Fine as basic means of punishment, more several crimes are punished with exile.

11 – 30

Liberal law, every defendant has got a right for a fair trial, death penalty is not in practice.

31 – 70

Law similar to that of civilized countries of modern Earth. Death penalty carried out only in cases of most brutal murderers.

71 – 90

Severe law, most crimes are punished with long-term imprisonment. Possession of firearms is forbidden not to mention arming private vessels.

91 – 00

Incredibly severe law. Torture as means of interrogation, cruel ways of carrying out executions.

Referee is not bound to create whole codices of law, it is only advised to add some paragraphs relating to weapon Possession, severity of penalties, possession of illegal substances or technologies. Above that other factors can be added to the law codices of particular worlds i.e. on Alephaar duels are allowed but only with

melee weapons and in specialty designated places whereas on Xanth saying the name of the main deity is punished with death. There is a whole lot of possibilities and nothing should restrict the Referee.

When creating space stations, in most cases the situation onboard is the same as on the planet that the peculiar place is subject to (if it is subject to anyone at all). Of course the Referee can do as sees fit. In general the space stations political system will be in 75% accordance with the majority of the system or the dominating planet.

Travel on planet’s surface

On civilized, high-tech planets there are designated landing zones (space ports) and any attempts to land a vessel / landing pod in any other place can met with serious consequences, that is if landing anywhere else is possible at all.

For other details – see *Underworld & Wilderness Adventures*.

Space stations

It would be madness for a Referee to create all space stations set even in a single planetary system. Therefore below you can find information which can be helpful in determining the presence of plot-wise irrelevant stations:

- 50% chance for d4 mining stations in every asteroid belt;
- 25% chance for d4 excavation platforms in orbit of any gas planet;
- 10% chance for presence of a research station in orbit / planet side of every planet (25% chance for that station to be abandoned);
- 50% chance for presence of a large habitat space station in orbit of any densely populated planet (several hundred million inhabitants and more);

An uninhabited system doesn’t necessary mean there won’t be any space stations – they could be abandoned due to war or low profitability of colonization, besides that in uncolonized systems stations inhabited by descendants of colonists forgotten and left there to survive on their own can be found.

Space stations population table.

Roll d100	Amount of inhabitants
01 – 10	None – station abandoned
11 – 20	None – all inhabitants are dead
21 – 30	Dozens
31 – 45	Several hundred
46 – 65	Several thousands
66 – 70	Dozens of thousands
71 – 85	Tens of thousands
86 – 95	Hundreds of thousands
96 – 00	Several million

The Referee can also set these numbers if needed. There’s a lot of factors to consider like the need of the plot, the stations localization, safety of the system, distance from used trade routes, etc.

Space stations and exploration

See *Underworld & Wilderness Adventures* (treat as dungeon).

Details for space station creation

During the stations creation (especially those abandoned or which inhabitants / crew are hostile towards the adventurers) apart from basic parameters such as type, size and its purpose the Referee also should take matters such as traps, doors and airlocks under account (50% chance for every door to be locked/jammed and impossible to be opened without forcing them, the situation on stations without power and without automatic doors it can be even worse), lack or presence of power, atmosphere, gravity and any vertical passages including elevators.

Random encounters in deep space

Generation of random encounters is a vital part of space travel (just like with exploration of planets, moons and stations) because they significantly embellish the course of the flight. Especially that not all encounters mean a fight.

In case of flights in bounds of a planetary system an encounter test should be made once a day if outside of a space system – once a week. In both cases roll d6; if you score a six there is a random encounter.

If due to a roll on the below table enemies are encountered, for instance pirates, make sure they are not just “some pirates” but a group that is somewhat connected to the environment of a particular star system (or even a sector). They can be goons paid by the masters of a nearby system to weaken the trade and transport and their defeat can be met with a reward from local law enforcement or military.

Sample random encounters in deep space - table

- 1 – Space nomad ship
- 2 – Courier vessel
- 3 – Small private vessel controlled by a madman
- 4 – Abandoned container (empty)
- 5 – Small fighter on collision course
- 6 – Military transport with small escort
- 7 – Smugglers hiding something on a nearby planetoid
- 8 – Dead body in a space suit
- 9 – Ship of swindlers trading in fake alien artifacts
- 10 – Bounty hunter
- 11 – Small private vessel (spies of an enemy faction)
- 12 – Freighter (absolutely ordinary)
- 13 – System militia patrol
- 14 – Space treasure hunters
- 15 – Miner base ship
- 16 – Rescue capsule (living survivors)
- 17 – Space barbarians ramshackle base ship
- 18 – Blazing battleship suddenly jumping out from hyperspace
- 19 – Cloud of spore parasites that can eat through ship plating
- 20 – Temple ship of a mystic sect
- 21 – Cloud of ordnance still speeding forward with initial momentum
- 22 – Small ice planetoid with an alien artifact engrossed in it
- 23 – Lone stray mine
- 24 – Space tug
- 25 – Pirate ambush in asteroids
- 26 – Space scrap gatherers
- 27 – Freighter full of refugees

- 28 – Lone planetoid with an abandoned mine
- 29 – Abandoned container (booby trapped)
- 30 – Space pilgrims
- 31 – Private yacht stolen by thieves
- 32 – Navigational buoy
- 33 – Giant, ancient battlefield
- 34 – Space trader ship
- 35 – Convoy destroyed by unknown enemy
- 36 – Colossal space flatfish / ray
- 37 – Space storm of unknown type disturbing instrument reading
- 38 – Battleship transmitting SOS (plague on board)
- 39 – Deserters posing as system militia
- 40 – Mercenary base ship
- 41 – Giant city ship
- 42 – Rescue capsule (everybody on board is dead)
- 43 – Courier vessel wreck
- 44 – Freighter transmitting SOS (pirate ambush)
- 45 – Body of an alien
- 46 – Freighter under attack by the pirates
- 47 – Planetoid hollowed out by space ants
- 48 – Research vessel
- 49 – Prison ship
- 50 – Fighter being a grave of a space barbarian king
- 51 – Freighter transmitting SOS (main drive malfunction)
- 52 – Small private vessel (ordinary travelers)
- 53 – Slaver ship
- 54 – Special purpose freighter carrying dangerous materials
- 55 – Patrol frigate attacking a pirate ship
- 56 – Hundreds of years old colonist ship (crew still sleeping in cryo!)
- 57 – Antique satellite with insane AI on board
- 58 – Gigantic superfreighter
- 59 – Sealed military container (weapons inside)
- 60 – Enemy fighter pilot calling for help
- 61 – Ship of an assassin sect posing as space pilgrims
- 62 – Wreck crashed on the surface of a lone planetoid
- 63 – Minefield of tremendous size
- 64 – Enemy patrol ship willing to switch sides
- 65 – Alien vessel of unknown construction (no crew)
- 66 – Rescue capsule (lone survivor gone mad)
- 67 – Routine control by system authorities
- 68 – Abandoned container full of illegal drugs
- 69 – Luxury private yacht
- 70 – Bounty hunter vessel pursuing his prey
- 71 – Burned out wreck hauled by a tug
- 72 – Diplomatic vessel of another system / faction
- 73 – A dozen or so planetoids and gigantic bugs feeding on them
- 74 – Smuggler freighter
- 75 – Prison ship taken over by the “passengers”

- 76 – Freighter convoy protected by military vessels
- 77 – Navigational buoy leading to a pirate trap
- 78 – Luxury liner
- 79 – Antique dud fitted with a nuclear warhead
- 80 – Battleship transmitting SOS (mutiny)
- 81 – Wreck robbers at work
- 82 – Wreck of a freighter with space ants / bugs inside
- 83 – Cloud of debris several kilometers wide left by a battleship
- 84 – Clash of two civilian vessels (old enemies)
- 85 – Sealed military container (deadly viruses)
- 86 – Space tanker
- 87 – Small cluster of planetoids operated by miners
- 88 – Giant space beast hunting small vessels as well
- 89 – Pirate base ship
- 90 – Lone fighter lost in space
- 91 – Wreck of a freighter adapted for hermitage
- 92 – Enemy frigate on a corsair run
- 93 – Huge cloud of space dust
- 94 – Heavily radiated wreck of a small military vessel
- 95 – Luxury private yacht (converted into a pirate vessel)
- 96 – Sealed military container (empty – a provocation)
- 97 – Alien vessel speeding in its own direction
- 98 – Exploration vessel hundreds of years old
- 99 – Enemy battlecruiser
- 00 – Roll two times and pick both



SHIPYARDS



SHIP CREATION SEQUENCE

1. Choose hull type.
2. Choose armor and its type.
3. Choose a proper reactor for the type of vessel.
4. Choose main drive Class.
5. Fit the vessel with proper maneuvering thrusters.
6. Decide if the vessel is to be fitted with a jumpdrive.
7. Equip the vessel with necessary electronics: sensors, main and navigational computers. If you plan on arming the vessel, a targeting computer will be necessary as well.
8. Choose a proper cockpit or bridge and crew quarters.
9. Choose weapons in accordance to hull type and available space.
10. Decide on the shield generator and its type.
11. Space left after mounting weapons and shield generator can be used for holds, storerooms, hangars and any other installations such as passenger cabins, laboratories etc.

TYPES OF SPACE VESSELS

Due to a great amount of colonized star sectors, diversity of conditions and dozens if not hundreds of tasks carried out by space vessels and chips it is impossible to mention all of their types. Nevertheless a basic factor by which vessels can be classified is the hull type warranting the general way of use. Exceptions happen.

Small vessels (FT) most commonly fighters, small but fast courier vessels, orbital shuttles, etc

Structure points: 4

Base Pilot skill modifier: -10% (does not apply to Pilot class)

Free space: 5

Hull price: 10000 / 12000 credits

Light freighters (LF) including all small civilian vessels as mining vessels, tugs and most private exploration vessels.

Structure points: 8

Base Pilot skill modifier: -10%

Free space: 16

Hull price: 16000 / 24000 credits

Superfreighters (SF) are big civilian vessels like hydrogen tankers, passenger liners or mobile processing plants.

Structure points: 30

Base Pilot skill modifier: -30%

Free space: 48

Hull price: 30000 / 90000 credits

Frigates (FR) smallest autonomic battleship. Includes escort vessels, support vessels and big exploration vessels.

Structure points: 18

Base Pilot skill modifier: -10%

Free space: 25

Hull price: 38000 / 76000 credits

Cruisers (CR) apart from big battleships this class includes mercenary or slaver vessels and sometimes military special purpose transports.

Structure points: 25

Base Pilot skill modifier: -20%

Free space: 35

Hull price: 55000 / 220000 credits

Capital ships (CS) includes the biggest military vessels: battleships, blockade runners, rocket ships and carriers.

Structure points: 32

Base Pilot skill modifier: -30%

Free space: 50

Hull price: 68000 / 340000 credits

First price value relates to vessels able to operate in deep space and not in atmospheric environment, the second allows the vessel to land on the planet's surface.

SPACE VESSEL SUBASSEMBLIES

Hull armor

These are the most common armor types for civilian and military space vessels:

Titanium – cheapest and most common type of plating among civilian vessels.

Ceramite – armor with a very high heat capacity factor which grants a better protection form laser weaponry (-1 damage caused by lasers). Unfortunately ceramite is relatively fragile which makes it more prone to damage from kinetic type weapons (+1 damage from weapons be that cannons or rockets with classic, explosive warheads).

Reactive – reactive armor is made up of hundreds of small tiles filled with explosives which detonate upon impact by a projectile. This greatly reduces its effectiveness (-1 damage from standard projectile weapons). Unfortunately it is very ineffective against energy based weapons (+1 energy damage).

Carbide – standard battleship armor. Gives great protection against both laser and kinetic weapons (-1 damage) but is slightly more vulnerable to plasma attacks (no modifier).

Ultrasteel – superdense steel alloy, gives perfect protection against all kinds of armament not including grav and phase weaponry (all standard weapons deal -1 damage) but it also has a serious disadvantage - it disrupts most shield generators (-10% to their efficiency). Ultrasteel cannot be used as armor for SF class vessels as their construction does not support such heavy plating.

Durability points of individual hulls depend on armor used:

Armor / Hull type	FT	LF	SF	FR	CR	CS
None (unarmored)	5	10	15	15	25	30
Titanium	8	16	24	28	40	50
Ceramite	12	25	40	44	60	80
Reactive	13	26	42	46	64	85
Carbide	18	35	50	54	72	96
Ultrasteel	25	50	75	80	130	165

Prices of armor types:

Armor / Hull type	FT	LF	SF	FR	CR	CS
Titanium,	3000	5500	16500	12000	21000	28500
Ceramite	6200	11400	34200	24800	37200	58900
Reactive	7400	14000	42000	29600	44400	70300
Carbide	11000	23000	79000	44000	77000	10400
Ultrasteel	19500	47000	-	78000	136500	185500

Reactor

Used onboard of space vessels and ships. Reactors are divided into two basic types: standard, giving enough power to most vessels and expanded, used in case of higher power requirements eg. usage of a jump drive or highly advanced weapon systems. Below you can see the reactor prices for each ship class:

Reactor / Hull type	FT	LF	SF	FR	CR	CS
Standard	5000	7500	10000	15000	25000	40000
Expanded	10000	15000	20000	30000	50000	80000

Main drive

Next step in vessel construction is choosing an appropriate main Drive Class. Class A engines possess such great power that it requires an expanded reactor to function. Prices of engines as below:

Drive Class / Hull type	FT	LF	SF	FR	CR	CS
D	500	1000	2000	1500	3000	4000
C	3000	7000	12000	10000	18000	24000
B	7000	16000	37000	24000	50000	79000
A	10000	24000	-	35000	74000	110000

Maneuvering thrusters

Despite the fact that every space vessel possess an ability to maneuver using its main Drive thrusters, their maneuverability is still limited. That is why maneuvering thrusters are used. Any vessel / ship can have three maneuvering thruster sets, each one increasing the Pilot skill modifier during steering of the vessel by 10%. Prices dependant on hull type:

Hull type	FT	LF	SF	FR	CR	CS
Price of one thrusters set	3000	5000	9000	13000	19000	24000

Jump drives

Highly advanced technology that allows hyperspace jumps and thus allowing to cover huge distances with speed greatly exceeding the speed of light. Cost of a single jump drive is dependent on the hull type as well as its size. Jump drives are devices of huge proportions (and huge power consumption) which greatly hampers their usage on the smallest of the space faring vessels:

Hull type	FT	LF	SF	FR	CR	CS
Jump drive price	25000*	20000*	30000	18000	26000	38000

*) Requires an expanded reactor

Electronics

Main computer

Hull type	FT	LF	SF	FR	CR	CS
Main computer price	1000	2000	3000	7500	20000	32000

Targeting computer is a necessity for fighting in space – the distances are far too great and the combatants are moving with great speed, too great in fact for a human being to operate the armament without any assistance from electronics. The bigger amount of weapons handled by the targeting computer, the higher the price:

Max. weapons	1 - 2	3 – 5	6 - 8	9 - 10	11+
Price	1500	4000	11000	28000	+5000 for any additional wpn

Sensors are the eyes and ears of a vessel. They are composed of radio and radar antennas, chemical, magnetic and gravity sensors, a Geiger counter as well as optical and laser rangefinders. Some vessels posses special amplifiers that increase the efficiency of the sensors, these are however highly complicated devices with prices highly exceeding the ones of the sensors themselves.

Sensor type	Civilian	Military
Range	50 000 km	200 000 km
Price	1000	6000
Signal amplifier price +5%	3500	17000
Signal amplifier price +10%	8000	40000
Range amplifier price +50%	500	5000

Jamming systems that hamper enemy sensors during area scans have a cost value dependant on the strength of the signal and location test modifiers of the ship:

Sensor test modifier	-5%	-10%	-15%	-20%	-30%
Price	3000	10000	18000	29000	40000

Navigational computer costs 2000 credits in basic version, if it is supposed to operate jump drives its price grows five times.

Cockpit / Bridge

Element indispensable for the use of a vessel. Essentially they divide into several basic types with features dependant on the use of vessel / ship. These are the types below:

Universal cockpit – used on small civilian vessels (FT and LF class). Fitted with life support system allowing the spacefarer to work without the bothersome space suit. Price is 2000 for every two people that are to fit inside of it.

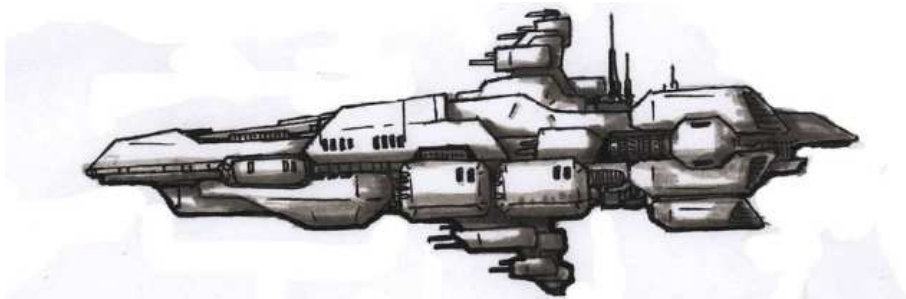
Fighter cockpit – as the name suggests it is designer for small fighting vessels. Its central point is the targeting computer. Frequently used by bounty hunters. Does not have the life support system although it is available as an equipment option. Price 1200 credits, module for two people. LSS designer for fighter cockpits costs 1500 credits.

Civilian bridge – standard command Centre for civilian vessels regardless of their size. Includes LSS. Price 7000 credits, does include seats for five persons.

Science vessel bridge – Includes expanded sensor array, LSS, laboratory access panel and scout vessel operation module. Also includes a large holoprojector which facilitates readings and displays the situation in the vessels surroundings. Most commonly used on exploration vessels. Price 18000 credits. Designed for six people.

Battle bridge – battleship command center from FR to CS class. Designed for ordinary flights as well as conducting military operations. Possesses LSS and an option to connect void suits. Equipped with two holoprojectors of which one operates the sensors and shows tactical readings, the second one being directly connected to the main computer, able to screen damage assessment, ships parameters and show a close-up of a desired part of the ship. Price 30000 credits, designed for twelve people.

Admiralty bridge – A command ship bridge, possessing all elements of a battle bridge as well as module allowing to command whole fleets, communication with each and every ship of the squadron as well as a specialized navigational computer. Price of the admiralty bridge is 49000 credits, designed for eighteen people.



Crew quarters

Generally all space vessels are designed in such a way that crew quarters do not have any effect on hulls free space. Despite that if a vessel is supposed to take on a larger amount of crew, for every eight people the free space is decreased by 1. Price of extra quarters is 1000 credits per one person. If a crew member requires additional equipment to be installed (i.e. they come from a world with a peculiar atmosphere or gravity) then the prices grow thrice.

Armament

Name	Range	Size	Price
Light laser	200 km	1	2500
Heavy laser*	500 km	3	6000
Light recoilless cannon	50 km	2	1800
Heavy recoilless cannon	100 km	5	4500
Light missile launcher	-	3	5200
Heavy missile launcher	-	6	9600
Light plasma cannon	250 km	7	11000
Plasma cannon*	400 km	14	28500
Gravcannon*	1500 km	10	19400
Light phase cannon*	750 km	8	26000
Phase cannon*	2000 km	15	39000

More on damage dealt by vessel armament can be found in the chapter *Space Combat*. Weapons marked with an asterisk require an expanded reactor to work. Heavy laser can be used with basic reactor but only as a battleship armament (FR, CR and CS class). Rocket launchers are fitted with six missiles, after firing them they need to be replaced.

Missiles

Name	Range	Weight	Price
HE warhead	500 km	100 kg	200
LR HE warhead	1500 km	250 kg	600
XR HE warhead	3000 km	500 kg	1300
Laser missile	650 km	120 kg	400
LR laser missile	2000 km	300 kg	1000
XR laser missile	4000 km	750 kg	2000
Plasma missile	650 km	150 kg	650
LR Plasma missile	2000 km	500 kg	1600
XR Plasma missile	4000 km	1 t	3500
LR grav missile	2300 km	750 kg	2500
XR grav missile	4500 km	1,5 t	5000

Long Range (LR) and Extreme Range (XR) missiles can be used as projectiles for heavy launchers.

Shield generators

Also known as force field generators, their purpose is to protect the hull of the vessel from clouds of space dust, bits of rocks and ice as well as enemy fire. Shield generators are divided into several types with different parameters and use:

Generator / Hull type	FT	LF	SF	FR	CR	CS
Alfa	2500	4000	9500	-	-	-
Beta	4500	7200	17500	14000	-	-
Gamma	-	14500	40500	29400	36000	54500
Delta	-	-	60000	51200	67700	87500
Omega	-	-	-	92000	126000	165000

Shield generator efficiency depending on their type:

Alfa	Beta	Gamma	Delta	Omega
20%	30%	40%	55%	75%

Omega type shield generator requires an expanded power generator. There is a possibility to improve the generator – in that case the efficiency grows by 6% and price by 25%

Additional components

Fuel tanks – every vessel possesses fuel tanks (usually designed to carry liquid hydrogen) with five ton capacity. Their price is included in the price of the hull. Additional tanks with all necessary systems cost 1000 credits per segment and their capacity is dependent on the hull type:

FT	LF	SF	FR	CR	CS
5 t	15 t	50 t	20 t	35 t	50 t

Holds - hermetical holding space. Basic version (500 credits per segment) does not include LSS (+500 credits per segment) and gravity (+200 credits per segment). Loading capacity of each segment is dependent on the type of the vessel:

FT	LF	SF	FR	CR	CS
5 t	25 t	100 t	15 t	20 t	50 t

Laboratory – contains all required analytic equipment indispensable during long exploration expeditions. Size: 4, cost 18000 credits.

Hangar – landing pad for fighters, shuttles and scout vessels, placed inside of the hull. Has enough carrying capacity to carry FT class vessels. Mountable only in SF (maximum one hangar) and CS (max. four hangars) class vessels / ships. Size: 10, price: 20000 credits.

External docking point – unarmored airlock (every hit has a 10% chance of hitting the vessel docked, chance grows with the amount of the vessels docked), designed for docking FT class vessels. Can be used on hull types of LF and bigger. Price of a single point is 4500 credits, maximum amount for each class as stated below:

LF	SF	FR	CR	CS
1	5	3	6	10

Passenger cabins – a lot more capacious than crew quarters. One segment of the vessel can be fitted with two bunk cabins (cost 2000 credits), two single bunk first class cabins (5000 credits) or on luxury apartment with its own bathroom and a holovision set (9000 credits).

Ammo storerooms – built for rocket and ammo storage in mind, one segment can hold amounts as stated below:

FT	LF	SF	FR	CR	CS
3 t	5 t	15 t	5 t	10 t	20 t

Ammo storerooms cost 1000 credits per segment and can be fitted (if the hull type allows that) with an automatic feeding system, increasing the cost by 500 credits a segment. The system is able to provide a direct connection to the cannon or reload the missile launcher (light in one round / 10 minutes, heavy two times longer).

Refueling system – several kilometers long, a very thin but also very durable cable fitted with a disc shaped device used to collect hydrogen from higher parts of gas giants atmosphere. It includes superdense chemical filters that allow the hydrogen to be picked out of many other gas types. System along with indispensable engines and pumps takes up two segments, costs 6000 credits.

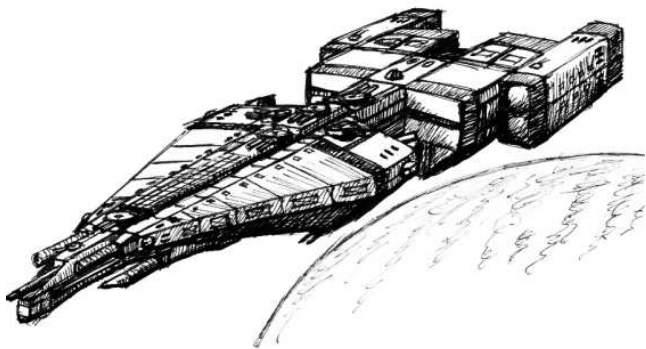
SPACE COMBAT

Rules below were developed for campaigns set in a Science Fiction convention and are a lot more complicated than basic OD&D rules. Therefore they can seem too (unnecessarily) complicated and not dynamic enough for some Referees. That is why the Referee must simplify and change the rules of engagements in space in such a way that would fit both the Referee and the players.

Use of a board during space combat

In case the combat involves more than two opponents, it is advised that the Referee would use a gaming board (usually a paper sheet with a hexagonal grid drawn on it), allowing to better mirror the situation. During combat there are two vital factors which are the speed and the distance between fighting spaceships. Therefore the map is indispensable.

All information is shown conventionally on the board – starting with dimensions (the battle is not fought in two dimensions like a sea battle) finishing on the lengths of field sides (these can be either hundreds of meters or kilometers depends on how fast are the participants of the battle – there is no atmosphere in space which allows to make great speeds). Especially the second aspect of the net is crucial during the fight, because it influences the range of the weapons. Therefore it can be assumed that regardless of the range of the armament, the vessels one field away from each other (or on the same hex) can shoot each other.



Time during space combat

During combat the time is divided into turns. One round is about ten minutes in game.

Enemy detection

Case one: the enemy is not using jamming devices. In this situation detection of any vessels is carried out automatically.

Case two: the enemy is trying to jam out readings. In this situation, the detection shows that there is someone waiting for us, but we don't know their exact position, size or numbers. If we want to get through the "cloud of interference", a crew member responsible for sensor readings must make a Science test modified by the enemies' jamming devices adding any quality bonuses of our own sensors.

Signal Jamming

It was described above in the paragraph relating to enemy detection. Of course the characters can jam signals as well (if they possess appropriate equipment aboard their vessel that is) and then the Referee must carry out appropriate tests.

Shooting at targets that are jamming sensor readings (if they were not compromised) is a lot harder (-20% on Weapon Systems skill tests).

Movement

This is especially important when we are using a hexagonal net, used to visualize the relative position of the enemies. The number of fields that can be flown through by a particular vessel in one round is dependant on the Drive Class and whether it's moving with travel or combat speed:

Drive Class	Travel speed	Combat speed
A	3	5
B	2	4
C	2	3
D	1	2

Change from travel to combat speed and vice versa takes one round.

Shooting at the enemy

To hit the enemy, a Weapon Systems skill test is carried out. Any additional modifiers of the roll depend on the *Referee* but the most crucial is the participants own speed in combat:

- If it comes to a **close range combat** (combatants are moving on a similar course and stay relatively long closely to each other) it is advised to deduct their speeds from each other (treat results lower than 0 as 0).
- One of the combatants is trying to **intercept the opponent** moving on a counter-course or crossing his own trajectory with the one of the enemy, the speed is to be summed up and the firing can be carried out in only one round.
- For every point below five – 5% is to be added to the hit chance pool, for every point above – 5% is to be subtracted from the pool. Additional modifiers can depend on the weapons range, conditions on the field of battle and other factors.

Dodge Maneuvers

To dodge a hit, a Pilot skill test needs to be carried out modified by the vessels maneuverability.

It should also be remembered that the Referee can make additional modifiers for the test, i.e. battlefield conditions (it is a lot easier to maneuver in deep space than in an asteroid belt).

Laser weaponry is an exception – due to tremendous speed of the laser beam, dodging this type of weaponry is impossible.

Missile weapons

Rules concerning firing missiles are identical as in the case of other kinds of weapons but some additional rules have to be added:

- Due to the fact that all missiles, despite their greater range, have a significantly lower speed than other types of weapons, all of their types will be able to reach the target after two rounds most likely hitting it at the end of round two.
- Weapon operators can attempt shooting down a missile by shooting at it.

Damage

All projectiles hitting a space vessel / ship cause damage to its hull plating. Every hit causes a decrease in its durability points by d6. Above that some types of weapons can cause additional damage: Here are some of them:

- Heavy lasers and missiles +1 damage;
- All cannons +1 damage, heavy cannons +2;.
- Plasma weaponry allows extra dice to be thrown to chose a higher effect;
- Phase weaponry reduces shield generator's efficiency by 20%.

Energy shields

Some types of vessels are fitted with shield generators that can absorb the energy of the hit. Every generator does have a percentile chance to absorb the damage (given in its description or the vessels statistics).

Additional rule proposition: if during a shield test 90-95 will be rolled, the shield turns off and will be back online after a successful Repair skill test. A lot worse situation can happen if 96-100 is rolled. The generator suffers a serious malfunction and its repair during battle is impossible.

Critical damage

When the ship's hull plating is be penetrated (it's durability drops to zero) every hit will cause 1 point of structure damage. In this case a roll on the critical hit table is necessary:

Roll d100

01 – 05
06 – 10
11 – 15
16 – 20
21 – 25
26 – 35
36 – 40
41 – 45
46 – 50
51 – 60
61 – 70
71 – 80
81 – 85
86 – 90
91 – 93
94 – 00

Hit effect

Cockpit / bridge
Main computer
Targeting computer
Navigational computer
Sensors
Main drive
Jumpdrive
Maneuvering thrusters
Crew quarters
Armament
Munitions storeroom
Cargo hold
Shield generator
Power conduit
Life Support System
Reactor

Here you can find the effects of critical hits:

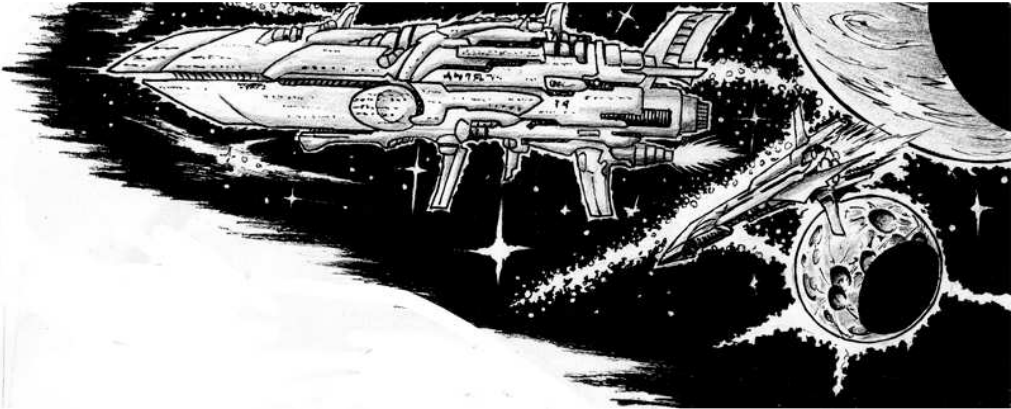
Cockpit / bridge	First hit: cockpit is heavily damaged. All present Lose d6 HP. Any actions attempted are at -10% modifier; Second hit: cockpit unsuitable for use. Everyone present Lose 2d6 HP, anyone out of a void suit dies; Third hit: cockpit utterly destroyed, all present there die. Vessel loses 1 Structure Point;
Main computer	Main computer taken out of action, repair in battle conditions impossible. Shooting at the enemy and navigation impossible as long as other computers are not reprogrammed. Even if that succeeds all tests made using targeting and navigational computers are at -10%. Second hit destroys the computer utterly.
Targeting computer	Targeting computer taken out of action. Shooting at the enemy impossible. In battle conditions provisional repair is the only available solution and the test are at -10% penalty. Second hit destroys the computer utterly.
Navigational computer	Navigational computer taken out of action. Navigation impossible, additional modifier - 20% for any maneuvers (including dodging). In battlefield conditions provisional repair is the only solution and the tests are at -10% penalty. Second hit destroys the computer utterly.
Sensors	Vessels sensors (not the antennas) are taken out of action (repair possible). Second hit destroys them utterly.
Main drive	First hit: Drive Class drops by 1 (i.e. from A to B), vessel loses 1 additional Structure Point; Second hit: change of speed impossible; Third hit: drives utterly destroyed, vessel loses 1 additional Structure Point. Crew damage same as in case of hits against the cockpit / bridge.
Jumpdrive	Jump drive is taken out of action, repair in battle conditions is not possible. In case the vessel does not possess a jump drive – treat as hits against main drive.
Maneuvering thrusters	One of the maneuvering thrusters has been utterly destroyed and until it is replaced all maneuvers are at -5% penalty.
Crew quarters	A part of the crew quarters had been destroyed, all present there receive a 2d6 hits.
Armament	Utterly destroys a random weapon, if not remotely controlled the gunners receive 2d6 damage.
Munitions storeroom	Ammo explosion deals 2 Structure Point damage (sometimes more, depends on the type of the ammunition), all present in the storeroom die.
Cargo Hold	d100% of cargo is lost in one, randomly determined hold (only if the vessel has more than one hold), in case of dangerous cargo the Referee determines additional effects if any occur.
Shield generator	First hit: shield generator taken out of action, repair in battlefield conditions impossible; Second hit: Shield generator is utterly destroyed, 25% chance for it to explode, the vessel loses 1 additional Structure Point;

Power conduit	<p>First hit: emergency shutdown;</p> <p>Second hit: power conduit is damaged, power reroute is necessary, repair in battle conditions impossible. Gravity seizes to function.</p> <p>Third hit: power conduit utterly destroyed. Damage to crew inside the conduit just like in the cockpit hits.</p>
Life support	<p>First hit: emergency shut down;</p> <p>Second hit: system seizes to function, repair during battle is impossible, gravity seizes to work;</p> <p>Third hit: LSS utterly destroyed.</p>
Reactor	<p>First hit: power decrease – all tests 10% harder, vessels loses 1 additional Structure Point;</p> <p>Second hit: drastic power decrease – all tests 20% harder, vessel loses 1 additional Structure Point;</p> <p>Third hit: reactor destroyed, vessel loses 1 additional Structure point. 10% chance for reactor explosion and destruction of the vessel.</p>

Repairs

Repair time of damaged subsystems is dependent on many factors which the Referee should take under consideration : devices complexity, severity of damage (i.e. hit from plasma weaponry is a lot more dangerous due to the size of the projectile than a hit from a laser which leaves only a rather tiny hole) and availability of proper tools and spare parts. Therefore the time required to bring something back up can take from ten minutes (i.e. in case of damaged sensor antennas) up to a week or even more (i.e. jump drive punctured by a cannon in several points). Repair costs in an orbital shipyard can be up to 50% of the devices value. Below you can find the prices for vessel and ship hull and armor restoration:

Hull type	FT	LF	SF	FR	CR	CS
Cost for 1 Structure point	1000	1500	2000	2000	3000	4000
Armor type	None	Titanium	Ceramite	Reactive	Carbide	Ultrasteel
Cost for 1 Armor point	100	150	250	300	500	800



SPACE TRAVEL

Maximum vessel speed

Because space is mostly empty it seems that nothing stands in the way of reaching incredible speeds – lack of friction allows to accelerate practically without any limitations closing to the speed of light. Despite that every Main computer does limit the speed of a given vessel because at some point hitting a single atom could cause a disaster. Because of that the maximum speed a vessel can achieve is 0,2c that is 20% of the speed of light.

Movement on the map

Every sector of the galaxy is divided into several dozen hexagonal fields. Every hexes diameter is about one parsec (about 3,26 light years), although the Referee can decide on that as seen fit. Due to limitations in how fast a space vessel can travel, in case of a typical size of one field it would take about sixteen years to travel on conventional drives, granted the possession of infinite fuel and provisions for the crew. Because of that the only way known to humanity to cover great distances is by hyperspace travel sometimes called hyperspace jumps. Game mechanics concerning jumps are mentioned at the end of the chapter.

Scanning of the surroundings

Although it is obvious that the presence (or absence) of stars in a given field can be determined using even the most basic optical sensors, determining if there are planets orbiting the star require the use of specialized equipment such as gravity sensors and various sensors coupled with telescopes that the vessel is equipped with. A full scan takes 24 hours and requires a successful Science test modified with all the bonuses from the sensors. Every additional day increases the chance of success by 10%. In case of failure it was impossible to determine if the system had planets.

It sometimes happens that in civilized, frequently visited systems there are special buoys or navigational satellites present that prove to be helpful in situational recognition and determining own position. The presence of such devices can be determined by passing a Science skill test with a +15% modifier. Above that in most cases just by stating the fact of presence of such buoys is enough to say that the system is colonized (or at least it was and the navigational satellites are the last proof of a tragedy that has befallen this system).

Arriving at a star system

Due to the fact that coming out of hyperspace does not occur on the fringe of a given hex but somewhere inside of it (the space is still growing so determining the exact position is impossible even to the most powerful navigational computers) the time required to reach the nearest star, if there is one of course, should be determined randomly in accordance to the power of the engines, its class and the acceleration.

Drive Class	Time
D	10 – 32 days (2d12+8)
C	8 – 26 days (2d10+6)
B	6 – 20 days (2d8+4)
A	4 – 14 days (2d6+2)

It is possible to drift - after reaching a certain speed the main drive is turned off and the vessel flies to its destination only by its momentum. In this case the time of travel takes four times longer but the fuel is only used for two days (acceleration and deceleration).

Drifting is not possible while traveling through nebulas – when void seizes to be void and becomes a gigantic cloud of dust and gas, friction occurs and it can stop the vessel relatively fast.

Fuel

Amount of fuel (usually pure hydrogen) used by a vessel depends on the Drive Class:

Drive Class	Tones of fuel / week of flight
D	2
C	3
B	5
A	8

Refueling from a space pumping station takes approximately ten minutes (one round of space combat) for every tone of fuel. Refueling from the atmosphere of a gas giant takes a week (from empty to full tanks)

Travel inside the borders of a star system

To simplify things up – covering distance between two planets (or other objects orbiting the sun) takes up one day. Gaining great speeds can be dangerous in interplanetary space. While the space between stars is practically empty the path within the boundaries of a star system can be dangerous due to ice and rock planetoids, wrecks or even dust rings surrounding stars in some cases. The distance is of course cumulative. Reaching a planet of destination and passing by two other will take three days rather than one. In case of traveling from a space station to space station on the planets orbit it will take about an hour to reach.

Launch and landing on planets and moons

To land on a planet or moon it is necessary to pass a Pilot skill test. Of course landing a vessel that does not have an aerodynamic shape and is not built to resist heavy hull stress is almost impossible and in most cases will end in serious damage to the vessel itself not to mention launching from the planet's surface which would be impossible under such conditions. Referee should employ a modifier dependant on the ships size (the bigger the vessel the harder it is to land, also remember that maneuvering thrusters do not work in planetary atmosphere!), atmospheres density i.e. atmosphere on Mars is a lot thinner and therefore causes less friction than Earth atmosphere. This is actually a negative factor that makes the landing harder to make. A failed landing test can cause the vessel to bounce of the planet's atmosphere (loss of 1 or more Structure Points) or heavy damage to armor caused by improper angle of entry which can cause the coating to overheat or burn (d6 points of damage to small vessels up to d100 to failed landings in the case of burning battleships and the like). Remember that ceramite armor is more resistant to heat so all damage should be halved rounding up.

Launching from the surface of a planet or a moon is simple from technical side but takes a lot more time and requires huge amounts of fuel for lift off. It takes about one hour in the case of small vessels and up to three hours for large vessels. Efficiency of the drive can have influence on time required to leave the planet but it is up to the Referee to decide. Below you will find the amounts of fuel required by vessels to leave the gravity well of a celestial body of earthen gravity (conversion rate is simple – multiply by the planets gravity force ratio, i.e. if gravity force on a planet is approx. 1,6g, then 60% more fuel is being used up):

FT	LF	SF	FR	CR	CS
0,5 t	1 t	5 t	1,5 t	3 t	6 t

Jump drives

Highly complicated, expensive and power hungry devices that allow the vessels to jump to hyperspace and therefore move with speed greater than the speed of light. To perform a jump into hyperspace it is necessary to calibrate the navigational computer and the engine which can be met with certain difficulties when it comes to traveling distances longer than usual. Jump drives are designed to make jumps from one up to three parsecs (three standard hexes on the sector map) and even though a trained person can make them cover distances even two times longer, their efficiency is greatly decreased. Also the navigational computers

used to handle hyperspace flights have certain default settings installed that greatly facilitate the use of these devices but greatly hamper the inexperienced crews ability to perform longer flights.

Jump drives need to heat up for an hour (six rounds of space combat) before ready to use. Programming a longer run takes 20 minutes (2 rounds) and requires a passed Science skill test. In the table below you can find sample modifiers of the test and amount of fuel used up in hyperspace:

Distance	Modifier	Fuel used up
1 – 3 hexes	Test not necessary	1 ton / hex
4 hexes	-10%	5 ton
5 hexes	-25%	8 ton
6 hexes	-50%	12 ton

In case of a failed test the jump takes place but it ends after passing three parsecs.
Hyperspace flights take one day for every parsec jumped in real space.

SAMPLE SHIPS

Frigate, typical

- Hull type:** FR (18 structure points, Pilot skill +0%)
- Armor:** reactive (46)
- Reactor:** expanded
- Drive Class:** A
- Maneuvering thrusters:** one additional unit
- Jump drive:** yes
- Sensors:** military +10%
- Jamming systems:** -15%
- Armament:** four heavy lasers, light missile launcher, heavy missile launcher
- Ammo:** 60 HE missiles, 24 plasma LR missiles
- Shield generator:** Gamma
- Cargo space:** none
- Other:** external docking point, battle bridge

Hi-tech fighter

- Hull type:** FT (4 structure points, Pilot skill +30%)
- Armor:** ultrasteel (25)
- Reactor:** standard
- Drive Class:** A
- Maneuvering thrusters:** 3 additional units
- Jump drive:** none
- Sensors:** military
- Jamming systems:** -5%
- Armament:** light phase cannon, two plasma missiles.
- Ammo:** see above.
- Shield generator:** none
- Cargo space:** none
- Other:** none

Pirate raider

Number appearing: 4 - 24

Hull type: FT (4 structure points, Pilot skill +20%)

Armor: none (5)

Reactor: standard

Drive Class: B

Maneuvering thrusters: 2 additional units

Jump drive: none

Sensors: civilian

Jamming systems: -5%

Armament: 2 linked light recoilless cannons, two HE missiles

Ammo: see above.

Shield generator: none

Cargo space: none

Other: none

Military Transport

Hull type: FR (18 structure points, Pilot skill -10%)

Armor: reactive (46)

Reactor: expanded

Drive Class: A

Maneuvering thrusters: none additional

Jump drive: yes

Sensors: military

Jamming systems: -20%

Armament: four heavy recoilless cannons in automated turrets

Ammo: really big amount of cannons ammo

Shield generator: none

Cargo space: 75 tons

Other: LSS in cargo, 2 external docking points, battle bridge

This table may be helpful to determine the designated / currently carried out task of the transport:

1 - transport is carrying wounded troops, survivors of a failed invasion;

2 - transport is carrying sick passengers, the vessel is under quarantine; 20% chance that the crews of the escort are infected as well;

3 - there is a contingent of greenhorns aboard the ship that do not have any combat experience;

4 - there is a contingent of regular troops aboard the vessel;

5 - transport is carrying a contingent of elite troopers / commandos / heavy support;

6 - transport is empty it already had delivered its "cargo";

Courier ship

Hull type: LF (8 structure points, Pilot skill -10%)

Armor: ceramite (25)

Reactor: expanded

Drive Class: A

Maneuvering thrusters: none additional

Jump drive: yes

Sensors: military +5%

Jamming systems: -10%

Armament: heavy laser in automated turret, light missile launcher

Ammo: 18 HE missiles

Shield generator: Alpha

Cargo space: 10t

Other: none

Courier vessel, designed for fast deliveries of precious (or ones needed "now") cargos to a designated place, usually they do not stop during carrying out tasks. That is why the best way to involve a courier in the plot is to place a damaged / under attack / nonoperational vessel.

Of course one needs to take under account that the players might want to loot the courier...

Table that may help to determine what was the courier carrying aboard (roll d20):

1 – coffin with a corpse inside

2-4 – expensive spare parts (i.e. jump drive components)

5-7 – medical supplies

8 – transplant organs

9-10 - orders (i.e. military, corporate)

11-13 – electronic components (hi-tech)

14 – exclusive substances, such as old wine, alcohol, cigars and so on

15-17 – expensive, real food

18 - weapons

19 - prisoner in a stasis cell / cage

20 - drugs / other illegal substances

Nomad ship

Hull type: special (20 structure points, Pilot skill -30%)

Armor: titanium (20)

Reactor: standard

Drive Class: C

Maneuvering thrusters: none additional

Jump drive: none

Sensors: +10%

Jamming systems: none

Armament: 3x heavy laser, 2x light laser, 2x light missile launcher

Ammo: 30 HE missiles, 10 laser missiles, 5 plasma missiles per each launcher

Shield generator: none

Cargo space: 300t

Other: farm rooms, refueling system, 3 external docking points

Fungal battlecruiser

Hull type: special (16 structure points, Pilot skill -30%)

Armor: none (55)

Reactor: none (but treat as expanded)

Drive Class: D

Maneuvering thrusters: none additional

Jump drive: yes

Sensors: +10%

Jamming systems: none

Armament: 10x spore launcher

Ammo: almost infinite amounts of spores

Shield generator: none

Cargo space: ???

Other: see below.

Fungal ship special rules:

Regenerate - at the beginning of each turn, fungal battle cruiser regains d6 durability points .

Fungal matter - ignore any effects of critical hits, instead reduce battle cruiser's structure points by one. Ship's armor is immune to phase weapons, but damage caused by plasma armament is increased by one.

Spore launchers - each launcher can shoot once per 2 turns. It ejects a large cloud of small, acidic spores (+1 to-hit). Cloud's effective range is 100 kilometers. Due to the fact that the projectiles are very small, any shield generator has +10% effectiveness bonus against them.

Some of fungal cruisers and capital ships are able to carry 2-20 attack drones - small, fragile but fast fighters that can make very effective suicide attacks against enemy vessels. There is a rumor that these drones are created by the fungal ships themselves in a way similar as it creates spores.

Crystal spire

Hull type: special (40 structure points, Pilot skill -20%)

Armor: crystalline armor (55)

Reactor: magical (see below)

Drive Class: B

Maneuvering thrusters: none additional

Jump drive: yes

Sensors: standard

Jamming systems: none

Armament: 4x ruby laser

Ammo: none

Shield generator: none

Cargo space: ???

Other: see below.

Crystal spire special rules:

Crystalline armor – ship's hull is immune to all laser weapons, including missiles with laser warheads. Damage caused by plasma weaponry is reduced by 2, but any kinetic weapons causes +1 damage.

Magical power source and engines – the ship is able to change its course and speed instantly to a desired value.

Teleportarium – an arcane device which allows the vessel to be shifted instantly from one point to another. It isn't any different from typical jump drives but allows to jump three parsecs at most.

Ruby lasers – an array of immense laser cannons, each capable of destroying a small vessel, such as fighters, in one shot. Range 1000 kilometers, you may treat it as a heavy laser.

Shan Pyramid

Hull type: special (20 structure points, Pilot skill -30%)

Armor: black stone armor (30x5 – see below)

Reactor: standard, nuclear

Drive Class: C

Maneuvering thrusters: none additional

Jump drive: yes

Sensors: military +20%

Jamming systems: none

Armament: 5x lightning cannon

Ammo: none

Shield generator: magical

Cargo space: ???

Other: see below.

The Shan, an insecticidal species from the world of Shaggai. They travel the void of space in enormous, pyramid like ships. They are much larger and better armed than human vessels and their construction is largely different :

Armor segments – the hull of the pyramid is divided into five segments each one representing one side of the vessel. Each segment does possess its own toughness value and so the side that took the damage needs to be randomly determined.

Lightning cannons – Shan are experts in the art of war therefore their ships are heavily armed. Every cannon is mounted on a spherical turret that greatly increases the angle of fire. Despite a relatively short range (about 750 km) the weapon does possess great firepower (2d6 damage at least). In addition the hit can induce an EMP effect.

Altar of God Azathoth – a central point of each pyramid is an immense nuclear reactor, which serves both as a shrine to Azathoth and a source of power to the ship. The reactor is highly unstable, so each hit against it has a 25% (cumulative) chance of explosion. However Shan vessels are so durable that the reactor's explosion (apart from making the pyramid completely unable to function) deals 4d6 structure damage.

Magical shield generators – 66% chance of absorbing the damage caused by a hit but in case of a failed test they turn off for a whole round.

SPACESHIP – SIZED MONSTERS

Additional rules

Monsters below, due to their size, should be used in fights against space-faring vessels. Due to their nature some of the rules should be modified.:

- They die after losing all durability points (do not count critical hits);
- Maximum speed that they can achieve in space (if they can move in space at all) is one to two hexes / round (some exceptions could happen);
- Maneuverability and chance to hit are dependent on Piloting and Weapon Systems skills;
- In case of fights against creatures of this size against human-sized opponents (or typical monsters) the damage dealt can be multiplied by 10.

Sample monsters

SPACE SQUIDS: Dozens of meters long (plus tentacles) cephalopods rarely attack small space faring vessels. If they manage to catch their opponent they suck into the armor plates dealing 2-13 points of damage per round. Besides that the squids can hide in a cloud of ink like substance which interfere with ship's sensors (-20% to detection).

Number appearing: 1-12

Durability points: 22

Move speed: 2

Maneuverability: 30%

Chance to hit: 30%

SPACE RAYS: Enormous rays which feed on various gases scattered in the void of space practically never attack space vessels although they sometimes become game targets to hunters. Wounded they become deadly opponents. Spikes on their tails cause 1-6 points of damage but the acid which they contain deal another 2-13 points of damage to every kind of armor except carbide and ceramite armors.

Number appearing: 10-100

Durability points: 38

Move speed: 1

Maneuverability: 45%

Chance to hit: 20%

ASTEROID WORMS: white worms that can grow up to be several kilometers long. They drill tunnels in rocky asteroids consuming them. If they eat one their bodies free a cloud of spores which is then sent to another rock by sailing on solar winds. Sometimes they attack space vessels passing nearby by trying to catch them (3-18 points of damage) or by spitting highly corrosive acids on their hull (range 50 kilometers, 1-6 points of damage).

Number appearing: 6-36

Durability points: 50

Move speed: 0

Maneuverability: 5%

Chance to hit: 30% spit, 15% bite

NOTES

COMING SOON:

UNDERWORLD KINGDOM - EXPLORE THE WORLD OF ORTIX!
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