Space Master

Star Strike

STARCRAFT COMBAT

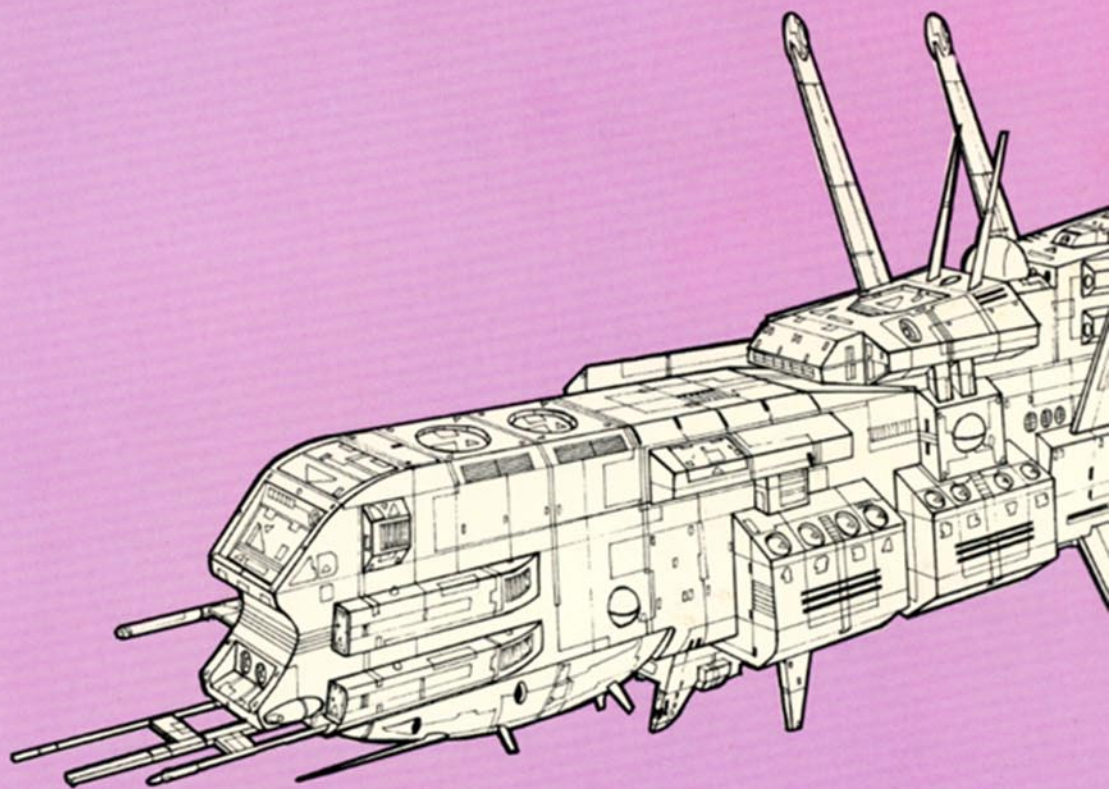IN THE FAR FUTURE

Space Master

Strike
Book

SPACE MASTER: STAR STRIKE™

STRIKE BOOK

Dedication: This game is dedicated to my family; La Mare, Wily V, Lumper, and Bunny-nose. You're the best.

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1.0

INTRODUCTION

As part of the **Space Master** system, **Star Strike** is more than just a space combat game of the far future. In fact, Star Strike is several games of varying complexity, a role playing supplement, a scenario generator, and a coherent starcraft construction system. Kind of a lot for one box, but then again, we tend to be a little ambitious.

Note: For readability purposes, these rules use the standard masculine pronouns when referring to persons of uncertain gender. In such cases these pronouns are intended to convey the meanings: he/she. her/his. etc.

To begin with, we present the *Basic Game*. With only a few pages of rules, pregenerated ships, crews, and a few hours of spare time, you will be well on your way to learning to play **Star Strike**.

The *Standard Game* builds upon the Basic Game's foundations, introducing maneuvers, missiles, damage control, and other frills. Alone, the Standard Game, and its scenarios, should fill many weekends with challenging game experience.

Once you're comfortable with the Standard Game, the *Advanced Game* awaits, with its three dimensional hex movement and combat system. (A first in the science fiction adventure gaming industry!) We hope you like it.

The ever-present *Optional Rules* follow. From these you may pick and choose, in order to find a level of "realism" and simulation that's right for your gaming group.

The **Space Master** *starcraft construction system* can also be found herein. With it (and a sturdy calculator) you will be able to design a plethora of logically constructed spacegoing vessels. When linked with **Space Master: The Role Playing Game**, your player characters will be able to design and commission customized starcraft of any class; be it a sleek warship or a utilitarian exploration vessel.

Have fun, and don't be daunted by the size of this rule book. You'll only have to digest it in small bite-sized pieces. (If your mouth gets too full, spit it out and start again.)

1.1 ■■■■■

PREMISE

The *gaming universe* of **Space Master** is set far into a distant future, when men have long since traveled to new worlds and developed technologies beyond present-day physical barriers. But along with man's technology and diversity grew lust and greed. Man's desire to control the new worlds which technology handed him, brought renewed and escalated violence. Space has become man's new battle-ground, and starcraft, his new weapons. **Star Strike** allows game players an opportunity to simulate this future conflict.

Starcraft, military ones in particular, are optimal designs. They link a power plant with motivating drives, weapons, shields and armor, to produce a cohesive mecha-nism. They are powerful extensions of the men who control them.

Sublight drive engines are a starcraft's interplanetary motive system. They are capable of propelling a vessel near to the speed of light if need be, and being energized by nuclear reactions, are far more powerful than chemical rockets.

Sublight drives at full thrust are unsuited to combat situations, (unless one's only interest is in fleeing the battle). Fully accelerating engines are incapable of producing the minor variations, "fishtail-ings" and "jogs", required to evade hostile fire. Therefore, *sublight drives* are built with minimum power *Maneuvering Thrusters*. It is these thrusters which combatants use to dogfight. Full sublight acceleration is left in reserve for disengag-ing from an overwhelming opponent.

The **Space Master** gaming universe also assumes the existence of a variety of deadly *energy and projectile weapons*. It is with these weapons that **Star Strike** players batter their foes into cowed submission.

A combination of several *electro-neutrino systems* will aid a **Star Strike** player on his quest. These include sensors, screens, electronic warfare, and other accoutrements which are the stock and trade of future space warriors.

ARMOR TECHNOLOGY

There are a number of defensive systems which can keep starcraft in the thick of a tight battle for some time. The basis of a vessel's defense is its hull. In **Star Strike**, there are ten different Con-struction Armor Types (CATs) from which a craft's hull can be composed. CATs are numbered 21 through 30 — 21 being the weakest, 30 being the most resilient. **Space Master** novices may wonder why we start with 21. Well, the reason for this is that Armor Types 1 through 20 are used in **Space Master: The Role Playing Game** to represent personal body armor. In any event, below are listed the ten CATs and the armor bases they represent.

CAT	Armor Base
21	Steel
22	Hardened Steel (chemically/physically treated)
23	Crysteel (aligned crystalline steel)
24	Crystanium (aligned crystalline titanium)
25	Reinforced Crysteel (braced hull)
26	Crysteel Double Hull (outer and inner hull)
27	Reinforced Crysteel Double Hull
28	Hardened Crystanium Double Hull
29	Ardinium (special metal)
30	Ordium II (special metal)

To these basic hull types can be added a number of improvements. The first is the creation of a "superior alloy" for the hull, which will produce an *Armor Quality* bonus. In addition, depleted uranium metal can be layered over a hull, forming an *Armor Belt* which decreases the chance of armor penetration. *Radiation Shielding* can also be incorporated into a base hull type; this does not contribute to the craft's combat survivability, but it may protect the vessel's crew from harmful electromag-netic rays.

Screen Generators are electro-neutrino system deflectors which can also be incorporated into a craft's design. These energy screens disperse incoming attacks, dissipating their power and thus reducing a strike's effectiveness. Screens may be arranged and concentrated over certain parts of a vessel to increase their protec-tive capabilities.

Electronic Warfare (EW) systems are primarily defensive units which obscure a target to a combatant's weapon tracking sensors. Therefore, EW can be considered an important component of a craft's armor.

WEAPON TECHNOLOGY

The standard weapon systems of Star Strike are described below.

Auto Cannons: These mass drivers diverge from the usual Energy Weapons used aboard starcraft in that they attempt to inflict damage by propelling a multitude of slugs towards a target. There are advan-tages and disadvantages to using Auto Cannons. On the plus side, they are inexpensive, mechanically reliable, and tough to critically damage; while on the other hand, they do not inflict severe damage to foes when the lower Mk.# versions of the system are used (i.e., less powerful versions). Also, Auto Cannons require a magazine of ammunition to feed the Firing Mechanism. So when the ammo runs out, an Auto Cannon becomes useless.

Laser Cannons: Lasers are the most commonly occurring starcraft Energy Weapons; reason being that they generate the greatest amount of critical damage for the lowest "cost". Lasers use high-powered, coherent light beams layered in concentric "shells" to deliver their destructive energy. The quick "burn-through" ability of Lasers is particularly effective against Ardinium armor, which is not normally so susceptible to damage.Unfortunately, due to the delicate Firing Mechanism alignment inherent in Lasers, they have a high breakdown frequency.

Blast Cannons: Blasters are rugged, particle beam weapons which are capable of delivering fairly good concussion damage to their targets, considering their (relatively) compact size and inexpensive cost. Unfortunately, Blaster bolts tend to be random in their application of destruc-tive energy and "splatter" upon striking a target.

Disruptor Cannons: These weapons project oscillating electromagnetic pulses which set up sympathetic molecular vibrations within their targets. Ideally, a Disruptor target will disintegrate under such a bombardment. Disruptor beams have the disadvantage of being very susceptible to energy screens, which tend to dissimilate the pulses. To their credit, Disruptors have the distinction of being particularly effective against Ordium II alloys.

Ion Cannons: Ion Cannons discharge ionized Blaster bolts. This ionization has a dual effect: it reduces a Blast strike's inherent randomness, and it maintains the majority of its destructive force until an armor layer is penetrated.

Plasma Cannons: These behemoths represent the upper end of Energy Cannon size and destructiveness. Disgorging a bolt of sub-atomic plasma, targets have difficulty resisting the concussion damage resulting from the attack. Plasma Cannons are, however, prone to overloads due to their high energy requirements.

Warheads: In addition to Projectile and Energy Cannon, a space warrior's arsenal may include Missiles and Torpedoes. These self-contained attack delivery systems usually carry powerful explosive warheads armed with proximity detonation fuses. Though rarely carried, Nuclear or Matter/Antimatter warheads can replace the explosives in a Missile or Torpedo. These are risky to use in battle though, as they detonate with an area effect which is capable of engulfing friendly combatants as well as the enemy.

1.2
SCALE

Battles in *Star Strike* will take place on one of the hexagonal grid supplied with the game. In most cases, a hexagon (referred to as a hex from now on) will represent a distance of 1 kilometer from side to side.

Note: *The Map has two superimposed hex grids. Normally the larger hexes are used, but the smaller hexes can be used if a larger effective playing surface is desired (see Section 8.8). Regardless of which hex grid is used the scale is still 1 kilometer per hex.*

Star Strike is played as a sequence of discrete Rounds (Combat Rounds, if you prefer). Each Round represents the passing of 10 seconds of real time.

USING *STAR STRIKE* WITHOUT A HEX GRID

If you do not like to use a hex grid when gaming, battles in Star Strike can be resolved using rulers and protractors to determine distances and turns. Just use inches whenever the rules refer to hexes **and** treat a turn of one "hexside" to be equivalent to a "turn" of up to 60 degrees.
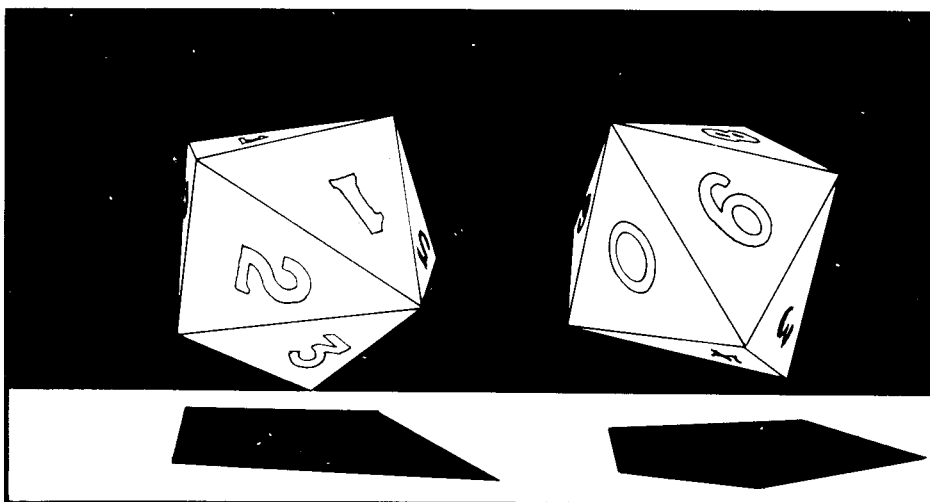
1.3
DICE AND DICE ROLLING CONVENTIONS

To play *Star Strike*, you will need two 10 or 20 sided dice, the faces of which are marked from 1 to 0 (10). The two dice should be of different colors for easy identification. Most of the rolls in *Star Strike* require you to generate a number between 1 and 100. In this instance, declare one 10 sided die to be the "tens", while the other is the "units". Roll both together and read the result in order. If the roll is "00", the result is 100, otherwise, a zero roll for the "tens" die means the "units" result stands alone.

Example: *White die is tens, Red die is units. They are rolled: the up-face of the white die is a 4, while that of the red die is a 6. The result is "46". They are rolled again: white die 0, red die 8. The result is "08", or just "eight".*

Dice codes appear throughout the rules in the form #D#, where the first # represents the number of dice to roll and the second # represents the "size" of the dice to roll. If the first # is not given, it is assumed to be "1". Some examples follow:

• 1D100 (or D100) is the code used to represent the generation of a 1-100 roll.

• 1D10 (or D10) is the code used to represent the generation of a number between 1 and 10.

• 2D10 will generate a number between 2 and 20. Roll two ten sided dice and add the results.

• 1D5 (or D5) is the code used to represent the generation of a number between 1 and 5. Roll 1D10 and divide by 2, rounding up.

OPEN-ENDED ROLL

An "Open-ended Roll" is a special version of D100 (i.e., 1D100), and is used quite often in *Star Strike*. Roll D100 as usual, but if the result is a 96-100, roll D100 again and add the result to the total. This may theoretically continue on subsequent rolls of 96-100. If the original D100 result is an 01-05, roll again, but this time subtract the result from the total. If this next roll is from 96-100, roll again and continue to subtract the result from the total. This may theoretically continue on subsequent rolls of 96-100. An open-ended roll, therefore, is capable of generating numbers far beyond the normal 1-100 range.

Example: *An Open-ended Roll is made. The first roll is an 04, requiring another roll to be made and subtracted from 04. The second roll is a 97, resulting (so far) in a -93. However, the 97 indicates that another roll must be made and subtracted again: this time it is an 05. The net roll is -98.*

COMBAT ROLL

A "Combat Roll" is a special version of the Open-ended Roll, and is used throughout the *Star Strike* combat system. A Combat Roll is only "Open-ended" through the upwards (high) end of the range. So, subsequent add-on rolls are only made after an original 1D100 roll of 96-100. Particularly low rolls are not open-ended downwards, but will rather usually result in a weapon failure.

2.0
THE BASIC GAME

The **Star Strike** Basic Game is an introductory version of the Standard Game found in Section 4.0. As such, the Basic Game contains only rules governing simple engagements between small fighters armed with a limited array of weaponry. In addition, certain rules are simplified to make the game easier to learn; then in the Standard game these rules will be expanded to add more realistic elements.

Novice boardgamers will probably be better off playing the Basic Game until they feel comfortable with the mechanisms. Even the more experienced gamers should play the Basic Game at least once before moving on to the Standard Game.

2.1
THE MAP

The hex grid super-imposed over a star field is your playing surface, or "Map". The hex grid is used to regulate four key elements of play:

> Position
>
> Movement
>
> Turning
>
> Firing Ranges

During play each playing piece (i.e., each *unit*, see Section 2.2) occupies one *hex* and must *face* one of that hex's 6 sides. *Turns* will occur in 60 degree increments; since 60° is the angle which exists between two adjacent sides of a hexagon. The compass printed in the corner of the map is numbered from 1 to 6 and is used as a directional reference for momentum and drift as described in the Standard Game.

Note: *The Map has two superimposed hex grids. Normally the larger hexes are used, but the smaller hexes can be used if a larger effective playing surface is desired (see Section 8.8).*

2.2
THE UNITS

The combatants/units in the Basic Game will be *SMAC* (Single Manned Attack Conveyance) fighters. These SMACs are armed with a mixture of Laser and/or Blast Cannons, which you will fire at your opponents in an attempt to eradicate them from the universe (all right!). SMACs are represented by cardboard counters (hereafter referred to as units), which can be found on the counter sheet. Units must be placed and moved on the map in accordance with the rules of the game.

A SMAC is rated in terms of its capabilities:

Mark # (Mk.#): the size of its Weapons (Cannons)

Maneuver Thrust (MT): the power of its engine.

Offensive Bonus (OB): the sum of its offensive capabilities.

Defensive Bonus (OB): the sum of its defensive capabilities.

The functions of a SMAC's capabilities will be explained throughout the following sections of the Basic Game rules.
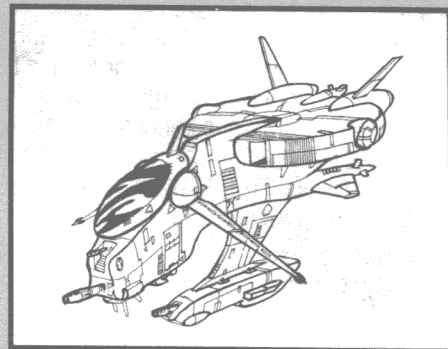
2.3
YOUR PILOT

SMACs are fine pieces of machinery, but they don't fly by themselves. Your Pilot will, more often than not, be the deciding factor on the battlefield. In the Basic Game, your Pilot will be defined by three attributes:

Combat Pilot bonus: this reflects his piloting skill in combat.

N-space Pilot bonus: this reflects his basic non-combat piloting skill.

Heavy Energy Projector bonus: this reflects his skill at using his SMAC's weapons to attack an opponent. This bonus is sometimes abbreviated as: HEP.

The use of these bonuses will be explained as you proceed through the following sections of this Basic Game.

Note: *If you would like to generate your Pilot right now, just roll 1D10 and cross index the result on the following chart. The values listed for the three categories (resulting from your one die roll) will define the capabilities of your Pilot. Note them down for later reference.*

UNIT AND HEX GRID

Proper placement of a unit in a hex.

Unit

60°

Hex sides

BASIC GAME PILOT GENERATION CHART

Roll	Combat Pilot bonus	N-space Pilot bonus	Heavy Energy Projector bonus
1	20	40	35
2	25	40	30
3	30	30	40
4	35	55	35
5	40	45	50
6	45	70	60
7	50	50	45
8	60	80	40
9	70	70	55
10	80	90	65

2.4
THE BASIC SEQUENCE OF PLAY

Each Combat Round of *Star Strike* represents the passing of 10 seconds of real time. Within the Combat Round, you and your opponents must follow the Sequence of Play as outlined below, one step at a time.

BASIC GAME SEQUENCE OF PLAY

1: Initiative Phase
2: Movement Phase
3: Fire Phase
4: Orientation Phase

- Complete all applicable actions of a step before moving on to the next one.
- You may not perform a step out of order.
- Except for movement and firing, all players may perform actions within a step at the same time that their opponents do.
- The sequence description given below assumes one "pilot and SMAC" per player. If a player controls more than one SMAC, he must determine initiative, move, and fire each SMAC separately.
- After you have completed one Round, move on to the next and start the sequence over again.

EXPANDED SUMMARY
Initiative Phase:
1) Each player splits his pilot's Combat Pilot bonus between OB and/or DB (see Section 2.5).
2) Each player determines his SMAC's Initiative Number (**IN**) for the Round (see Section 2.6).

Movement Phase: The SMAC with the lowest Initiative Number moves first, then the SMAC with the second lowest IN moves, then the SMAC with the third lowest IN moves, and so on until all of the SMACs have moved. (Section 2.7).

Fire Phase: The SMAC with the highest Initiative Number fires all of his weapons first, then the SMAC with the second highest IN fires, then the SMAC with the third highest IN fires, and so on until all of the SMACs have fired (see Section 2.8).

All damage resulting from an attack is applied before the next SMAC fires (see Section 2.9).

Orientation Phase: You may attempt to regain control of your "Out of Control" SMAC (see Section 2.10).

2.5
SPLITTING THE COMBAT PILOT BONUS

Each SMAC pilot will have a Combat Pilot bonus stated as a number between 20 and 80 inclusive. This number serves two purposes: *first*, it helps your SMAC attack and/or defend (described in this section); and, *second*, it helps improve your initiative ranking in combat (see Section 2.6).

- Central to this discussion are the concepts of OB and DB. OB (Offensive Bonus) is a quantitative rating of a SMAC on the attack. DB (Defensive Bonus) is a measure of a SMAC's ability to avoid damage.
- At the beginning of each new Round of combat, each player must split his pilot's Combat Pilot bonus into two *portions*, applying one to his SMAC's OB for the Round, and the other to his SMAC's DB for the Round.
- The sum of these two *portions* may not exceed your pilot's total Combat Pilot bonus.
- Each pilot's OB/DB split is recorded in secret as the first action of the Round. It is entered in the appropriate column of your SMAC Display.

Example: SMAC Pilot Karin Baskey has a Combat Pilot bonus of 50. During the beginning of a Combat Round, she may make an OB/DB split of 50/0, 0/50, 25/25, or any combination adding to 50.

Note: At the beginning of each new Round of combat, you will have to ask yourself; "Do I want to be a frothing maniac, or wimpish coward, or something in between?" In other (more rational) words, "Do I want to approach this Round of combat in a very aggressive manner or in a very defensive manner?"

If you want to be very aggressive, you should secretly allocate **all** of your Combat Pilot bonus as an addition to your OB for that Round.

If you would rather value self-preservation, you should secretly allocate **all** of your Combat Pilot bonus to your DB for that Round.

More likely, you will want to find some balance between the two extremes; so split your Combat Pilot bonus into two portions, applying one to your OB for the Round, and the other to your DB.

COMBAT PILOT OB/DB SPLIT

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
1	13	25/25	___	___	___	___
2	___	___	___			
3	___	___				
4	___	___				
5	___	___		Enter your OB/DB split in this column at the beginning of each Round.		
6	___					
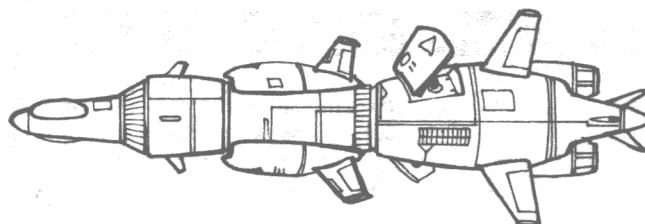
2.6
INITIATIVE

A SMAC's Initiative Number for the Round will determine when it moves and fires relative to the other SMACs. Generally, you will want to have a high Initiative Number, as this will allow you to move after others in the game (thus having the advantage of knowing where they have moved to). A high Initiative Number will also allow you to resolve your fire before others in the game, and so possibly eliminate your opponent's opportunity for a return attack. In essence, a high Initiative Number could mean that you would move last and fire first.

Determining your SMAC's Initiative Number is the second activity performed during the Round. You calculate your Initiative Number by adding four factors together:

• Your pilot's Combat Pilot bonus.
• Your SMAC's computer's Tactics Program bonus.
• Your SMAC's Maneuver Thrust.
• An open-ended D100 roll.

Your SMAC's Tactics Program bonus and Maneuver Thrust are shown on the SMAC Display, as is the appropriate column for the Initiative Number (IN) entry.

If the Initiative Numbers for two or more vessels are equal, the controlling players should immediately make competitive die rolls to determine the Initiative Ranking of those vessel's for Movement purposes. There is no simultaneous moving of vessels in Star Strike.

2.7
MOVEMENT

The *Star Strike* Standard Game movement system will attempt to simulate flight through the frictionless vacuum of space. As such, you will have to put aside your thoughts of how things (like people and cars) move on the earth's surface, or how planes fly through the air. In space, there is no traction or drag.

However, movement in the *Basic Game* is simplified by reducing the effects of momentum to a "turning cost".
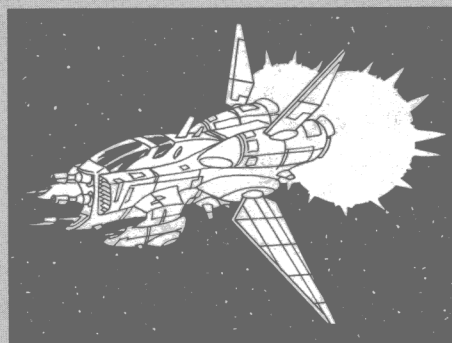
THRUST

Your SMAC has a *Maneuver Thrust* value printed on the SMAC Display. During each movement phase, your SMAC may expend these Maneuver Thrust points (hereafter referred to as MTs) to:

• Acclerate and enter new hexes
• Turn within a hex

Your SMAC may not expend more MTs during a Movement Phase than it has available, although it could expend fewer. MTs may not be accumulated from Round to Round, they are either spent, or lost.

ACCLERATION

When accelerating straight ahead, a SMAC must enter the hex directly in front of it. A SMAC can enter a new hex for every MT it expends.

Example: A Fire Brand SMAC has a Maneuver Thrust value of 13. It could accelerate in a straight line and enter 13 hexes by expending all 13 of its MTs. It could not spend more than 13 MTs, though it could have expended any portion up to 13. Any excess MTs could not be carried over to the next Round.

MOMENTUM

As a SMAC expends MTs and moves forward, it builds up momentum. However, in the *Basic Game* this momentum is ignored; in the *Standard Game* (see Section 4.0), the movement rules will be expanded to account for momentum and deceleration.

TURNING

Every time you want to turn, you will have to expend 2 MTs and you may make a turn, changing your SMAC's facing by one hexside in either direction.

Example: Fire Brand "A" is facing direction "5". "A's" player now wishes to be pointing in direction "3". He must spend 2 MTs to turn towards direction "4". Then 2 MTs are spent to turn towards direction "3".

FINAL COMMENTS

SMACs move sequentially during the Movement Phase. The player of the SMAC with the lowest Initiative Number completes his entire move first. Then the

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INITIATIVE NUMBER

INITIATIVE RECORD

Combat Pilot Bonus:	50
Tactics Program:	50
Maneuver Thrust:	13
BASE INITIATIVE #:	113

The Base Initiative # is the sum of the three other factors in the Initiative Record.

A D100 roll is added to the Base Initiative # every Round and the sum entered in the Initiative Number column of the Combat Round Record. The Initiative Ranking entry should indicate your place in the order of movement.

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	To D
1	13	25/25	163	2nd		
2						
3						

BASIC GAME TURNING

Facing before the turn.

Facing after the turn......
4MTs have been expended.

SMAC with the next lowest Initiative Number completes its move, and so on through to the SMAC with the highest Initiative Number, which moves last.

During the Movement Phase, you may spend your MTs accelerating and turning, in accordance with the Basic Game rules.

There is no limit to the number of SMACs which may occupy the same hex at the same time. There is no chance of colliding with other SMACs in the Basic Game.

It is important, however, to keep track of the order in which SMACs enter the same hex at the end of movement (for the purposes of Firing, see Section 2.8). Stack SMAC units which occupy the same hex one on top of the other. The SMAC that entered the hex first should be at the bottom. The SMAC that ended its move there next should be placed on top of the previous one. Continue this process, if necessary, with the last SMAC to end its move in the hex placed on the top of the stack.

Note: You should move in such a way that opens up the greatest number, or best, attack opportunities, while denying your opponents a good shot. This technique will come with practice.

2.8
FIRING

In the Basic Game, your SMACs are armed with Laser Cannons and/or Blast Cannons. The parameters which govern firing include:

- The SMAC's Covered Arc
- The Range Between a firing SMAC and its target
- The SMAC's Offensive Bonus
- The target's Defensive Bonus
- The SMAC's Combat Roll.

These factors are described in the following sub-sections.

COVERED ARC

All Basic Game Cannons have the same "Covered Arc", which extend at a 60° angle out from the front of the SMAC. Such Cannons are said to occupy a "Fixed Forward" mount.

During the Fire Phase, you may resolve attacks against opponents which occupy a hex within this Covered Arc. You may also fire at a target in the same hex as your SMAC, as long as your SMAC entered the hex after the target **or** the target entered the hex through your SMAC's Covered Arc.
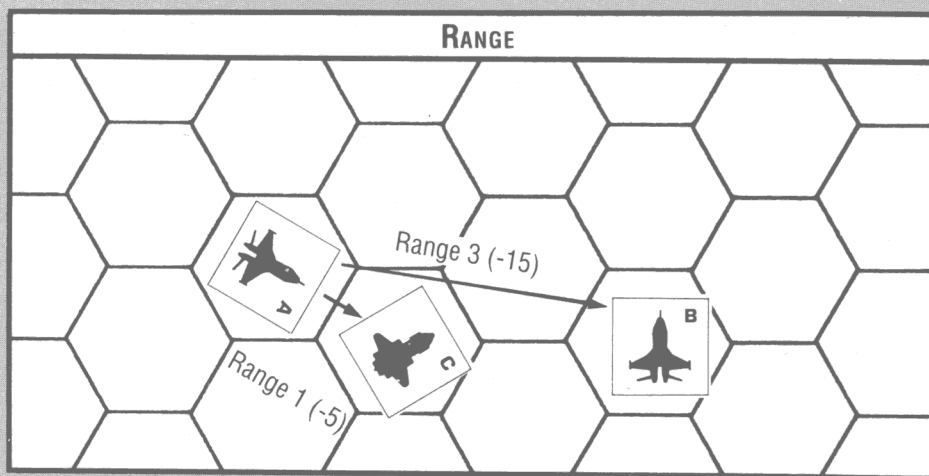
RANGE

RANGE

Your SMAC's Cannons are also restricted in that they may only fire at targets within range. The maximum range of a Cannon is equal to its Mk.# stated in hexes.

Example: A Fire Brand SMAC is armed with two Mk.10 Laser Cannons. These Cannons may fire at a target from 0 to 10 hex range (within the 60 degree Covered Arc). In the graphic above, the range from SMAC "A" to SMAC "B" is 3; while the range from SMAC "A" to SMAC."C" is 1.

The greater the range to a target, the more difficult it is to hit that target. Therefore, one of the factors which will be taken into account during the Combat Roll will be a "range modification": a subtraction of "5" for each hex of range from the firer to the target. If the firer and target occupy the same hex, the range modifier would be zero.

Example: In the example above, the range modification for SMAC "A" firing on SMAC "B" is -15; while the range modification for SMAC "A" firing on SMAC."C" is -5.
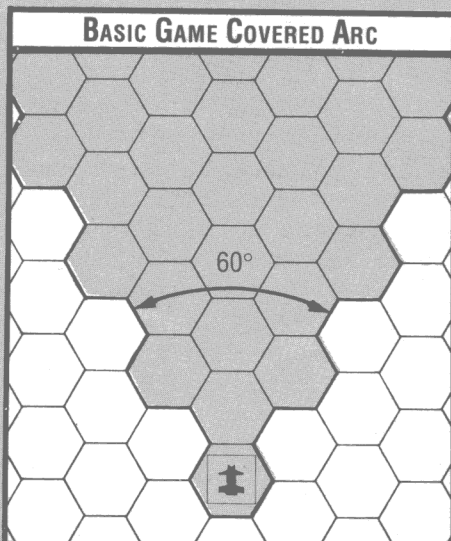
WHO FIRES FIRST?

As described in the Initiative section, your SMAC's Initiative Number determines when you can fire during the Fire Phase. The SMAC with the highest Initiative Number may resolve its firing before all others. All damage caused by the attack takes effect before the next SMAC may fire. The SMAC with the next highest Initiative Number may then resolve its attack, and so on until the SMAC with the lowest Initiative Number fires (if it's still around!).

Gunnery Duel: There is one exception to the procedure outlined above for determining the order of firing. If two opposing SMACs have each other in their Covered Arc (i.e., they are head-to-head), and they both wish to fire upon one another, the SMAC with the highest Initiative Number does not necessarily fire before the other. When the higher (initiative) ranked SMAC declares that it will fire on the lower ranked SMAC, the lower ranked SMAC may immediately declare a "Gunnery Duel" against that higher ranked SMAC, to see which of them indeed fires first. Both participants of the Gunnery Duel roll 1D10. The SMAC with the higher roll then fires first. If the roll is a tie, fire and damage occur simultaneously. Note that if the lower ranked SMAC wins the Gunnery Duel roll, it will fire out of turn, but this is the only instance when such a thing will happen.

OFFENSIVE BONUS

Your SMAC's Offensive Bonus (OB) is a measure of its effectiveness on the attack. There are several factors which must be added together in order to arrive at your SMAC's Total OB. These factors are:

1) The pilot's Heavy Energy Projector (HEP) bonus.

2) The Mk.# of the SMAC's Cannon(s) which are firing (not cumulative for multiple cannons).

3) The Heads Up Display (HUD) bonus of the Weapon Mount.

4) The SMAC's computer Predict Program bonus.

5) The OB portion of the pilot's Combat Pilot OB/DB split for the Round (see Section 2.5).

Your pilot's Heavy Energy Projector bonus (HEP) is one of his defining characteristics (see Section 2.3). The remaining factors may be found on your SMAC Display. At the beginning of each Fire Phase, add the five factors together to derive your Total OB for the Round. Note that it will likely change from Round to Round as you receive damage, and change your pilot's OB/DB split.

Example: SMAC pilot Karin Baskey (Combat Pilot bonus = 50) is flying Fire Brand "A" and fires at an opponent during Combat Round 3. Her HEP bonus is 45, and at the beginning of the Round she had made a Combat Pilot OB/DB split of 35/15 (a total of 50). Her Total OB for Round 3 = 45 (H.E.P.) + 10 (Mk.10 Laser Cannons) + 5 (HUD) + 45 (Predict Program) + 35 (Combat Pilot OB). Total OB for Round 3 = 140.

DEFENSIVE BONUS

Your SMAC's Defensive Bonus (DB) is a measure of the SMAC's effectiveness at resisting or evading an attack. There are several factors which must be added together in order to arrive at your Total DB. These factors are:

1) Your SMAC's Armor Belt bonus.

2) Your SMAC's Electronic Warfare (EW) bonus.

3) Your SMAC's Screen bonus.

4) Your SMAC's computer Evade Program bonus.

5) The DB portion of the pilot's Combat Pilot OB/DB split for the Round.

These factors may be found on your SMAC Display. At the beginning of each Fire Phase, add the five factors together to derive your Total DB for the Round. Note that it will likely change from Round to Round as you receive damage, and change your pilot's OB/DB split.

Example: SMAC pilot Karin Baskey (Combat Pilot: 50) is flying Fire Brand "A" and is fired upon by an opponent during Combat Round 3. At the beginning of the Round she had made a Combat Pilot OB/DB split of 35/15 (a total of 50). Her Total DB for Round 3 = 5 (Armor Belt) + 20 (EW) + 10 (Screens) + 50 (Evade Program) + 15 (Combat Pilot DB). Total DB for Round 3 = 100.

THE UNMODIFIED COMBAT ROLL

The Unmodified Combat Roll is an open-ended (high) 1D100 roll (see Section 1.3). If this roll falls within the attack weapon's failure range, a "failure" will occur (see Section 2.9).

THE TOTAL COMBAT ROLL

Every time you wish to fire at an eligible opponent, you need to obtain a Total Combat Roll. To obtain the Total Combat Roll for a SMAC's attack, take the Unmodified Combat Roll, add the SMAC's Total OB for the Round, subtract the target's Total DB for the Round, and finally subtract the range modification (i.e., 5 for each hex of range from the firer to the target).

Total Combat Roll =
  Combat Roll
  + Firer's Total OB
  - Target's Total DB
  - Range Mod.

This modified roll is then used to determine what damage (if any) you have done to your opponent as described in Section 2.9.

FINAL COMMENTS

A SMAC may only fire the Cannon(s) of one Weapon Mount per Fire Phase.

A SMAC may only fire once per Fire Phase, and then only at one target. It may, of course, fire at different targets on different Rounds, and/or with different Weapon Mounts on different Rounds.

DAMAGE

To determine the result of an attack, turn to either the *Laser Cannon Attack Table* (19.2) or the *Blast Cannon Attack Table* (19.3), whichever is appropriate.

• If the Unmodified Combat Roll (**not** the Total Combat Roll) falls within the *Failure* range listed along the top of the Attack Table, your Weapon Mount has suffered some degree of Failure or Malfunction.

• Otherwise, cross-index your Total Combat Roll (down the side) with your opponent's Construction Armor Type (across the top).

• If your Total Combat Roll is greater than the Maximum Result threshold for Mk.10 Weapons (i.e., 102), treat the Total Combat Roll as 102 (called a 'Top-out').

Example: A SMAC fires at a target. The final, modified combat roll is 136. However, the SMAC has fired a Weapon Mount containing Mk.10 Cannons. Therefore, the Mk.10 damage threshold must be observed; and so the Combat Roll is treated as a 102.

The various results to be obtained on the Attack Tables are described in more detail below.

THE "F" RESULT

If your *Unmodified Combat Roll* is a 01-06 for Laser Cannons, or a 01-03 for Blast Cannons, a weapon system Failure has occurred and no damage is scored against the target.

Roll 1D10 on the Weapon Failure sub-chart displayed at the top of the specific Attack Table (19.2 or 19.3). The "Temporary Overload" result is self-explanatory. If a "Malfunction" occurs in the Basic Game, assume that one Cannon of the Weapon Mount is now inoperative for the rest of the game. If the Weapon Mount only contains one Cannon, it is inoperative for the rest of the game.

Example: The Fire Brand has one Weapon Mount that contains two Mk.10 Laser Cannons. They fire and the unmodified Combat Roll is an 05. A Failure results. The subsequent 1D10 roll is a 9. A Malfunction occurs. The Fire Brand's Weapon Mount is thereafter treated as if it contained only 1 Mk.10 Laser Cannon.

A "Number" Result

If no Failure occurs when you fire, and the *Total Combat Roll* results in a number, you have inflicted "Concussion Hit" damage on the target.

Multiply the number result on the appropriate Attack Table by the number of Cannons on the mount. This product is the total Concussion Hit damage you have scored against the target. Record this Concussion Hit damage immediately.

Example: *A Fire Brand fires at a target and scores a "4" result on the Laser Cannon Attack Table. But the Fire Brand has two Cannons firing, so the Concussion Hit result of "4" is multiplied by two. The Fire Brand inflicts a total of "8" points of damage against the opponent.*

A "Number/Letter" Result

If no Failure occurs when you fire, and the *Total Combat Roll* results in a number/letter combination on the Attack Table (e.g., 6A,10B, 15C, etc.), you have scored Concussion Hit damage **and** *Critical damage.*

- The total number of Concussion Hits delivered to the target is determined as described above; including multiplying the number result for multiple Cannons on a mount.

- Critical damage (or a "Critical") is represented by a letter result. The higher the letter, the more severe the Critical. Critical damage is **not** affected by multiple Cannons on a mount in any way.

- The result of a Critical is resolved by referring to the appropriate *Critical Result Table.* In the Basic Game, Laser Cannon Criticals are resolved on the *Pierce Criticals vs Small Starcraft Table* (20.1), while Blast Cannon Criticals are resolved on the *Blast Criticals vs Small Starcraft Table* (20.2).

- To resolve a Critical, roll 1D100 and cross-index the result with the appropriate letter. The resulting text describes the Critical damage you have inflicted on your foe. Apply the results immediately.

Interpreting Critical Results

In the Basic Game, certain Critical results are ignored because their resolution procedures are only covered in the Standard Game. Therefore, ignore any references to crewmember injury, landing gear, Maximum Sublight Acceleration (MSA) capability, communication systems, damage control, damage repair, interior fires, Missiles, and Torpedoes.

Otherwise, Criticals are interpreted in a common sense manner.

- Unless otherwise stated, all Critical damage takes effect immediately.

- If a system is *"knocked out"* or malfunctions, it can't be used for the rest of the game (however, an Auxiliary System could negate the effect of the loss of the unit; see below).

- Reductions in the *performance level* of certain systems (e.g., -20 to EW) are just subtracted from the present value of the system. If this reduces a value below 0, assume the system is knocked out.

- Extra *"Hits"* listed at the end of some Criticals are added to the opponent's Concussion Hit total.

- A vessel that loses all of its *Maneuvering Thrust* capability merely stops and loses all Tactics, Predict, Evade, and Pilot bonuses.

- The "Out of Control" Critical result requires a more in-depth explanation.

Out of Control

If a Critical result indicates that your foe is sent "Out of Control", he loses control of his SMAC and must attempt to regain control on subsequent Orientation Phases. See Section 2.10 for the results of being "Out of Control".

Auxiliary Systems

As listed on the SMAC Display, some fighters may carry certain Auxiliary Systems which can act as a backup for systems which are destroyed, knocked out, or damaged during combat. While Auxiliary Systems are not operating (i.e., the main unit is in working order), they are affected by "Auxiliary System" Critical results. When an Auxiliary System is functioning in the place of a main unit, that Auxiliary Unit is affected by "main unit" results from Criticals instead.

An Auxiliary System begins functioning as soon as the main unit which it backs-up is destroyed or knocked out. If the main unit is partially damaged, the Auxiliary System **may** be engaged (player's option).

Example: *A Fire Brand SMAC has an Auxiliary RIF Generator. During combat, the SMAC receives a Critical which destroys its RIF unit. The effects of such a hit are immediately negated because the Aux RIF can be engaged. A subsequent "Auxiliary System destroyed" Critical is received by the same SMAC. The Aux RIF is not affected by this Critical, as it is now considered a main unit, and could only be damaged by a regular RIF hit.*

Disabling and Destroying SMACs

A SMAC is completely **Disabled** when its Hit Total (listed on the SMAC Display) is exceeded by the Concussion Hit damage that it has taken. All systems of a Disabled SMAC are knocked out. A disabled SMAC is incapable of any action.

A SMAC is **Destroyed** (i.e., blows up) when it:

- Takes more than twice as many Concussion Hits as its Hit Total, **OR**

- Receives a Critical result indicating that it is Destroyed.

Note *regarding Concussion Hits: The Concussion Hit total for every vessel in Star Strike is equal to its mass (in tons), as modified by the Armor Belt (if one exists). See Section 9.2, Step 4.*

2.10
ORIENTATION

In the Basic Game, there is only one activity to be performed during the Orientation Phase. Any SMACs that are "Out of Control" at the start of an Orientation Phase may attempt to regain control. To do this, Make an Open-ended Roll and add the SMAC pilot's N-space Pilot bonus. If the result is over 100, the pilot has regained control of his SMAC and may thereafter operate normally. If the result is 100 or less, the SMAC remains Out of Control.

If a SMAC is Out of Control:

- It receives no Combat Pilot bonus for its OB/DB split (Combat Pilot bonus = 0)

- It may not attack foes

- It loses the Evade factor from its DB total

- It automatically has the lowest Initiative Ranking and must move first.

- To move an "Out of Control" vessel, roll 1D10:

  If **1-2**, turn left one hexside.

  If **3-4**, turn left two hexsides.

  If **5-6**, turn right one hexside.

  If **7-8**, turn right two hexsides.

  If **9**, do not turn at all.

  If **10**, turn the SMAC to face the opposite direction.

Then expend the SMAC's MTs accelerating in a straight line.

Roll	Target Drones
1	2x Type I
2	1x Type II
3	1x Type I; 1x Type II
4	2x Type II
5	2x Type I; 1x Type II
6	1x Type I; 1x Type II; 1x Type III
7	3x Type I; 1x Type III
8	1x Type I; 3x Type II
9	1x Type I; 2x Type II; 1x Type III
10	3x Type III

3.0

THE BASIC GAME SCENARIOS

There are three Basic Game Scenarios, all of which use the SMAC Fighters presented on the displays given in the self-cover insert booklet provided in this game (Section 21.0). The first Scenario is for Solo play, the second is for two players, and the third is a multiple player / team game.

The pilots for your SMACs may be generated randomly on the *Basic Game Pilot Generation Chart*.

BASIC GAME SCENARIO NOTES

On occasion, reference will be made to "Pilot Rank". Your Pilot's Rank equals the number you rolled on the Generation Chart. For instance, if you rolled a "6" to generate your Pilot, he has a Rank number of 6. Your Pilot's Rank number will be used to adjust victory calculations at the end of some scenarios. Before starting each Scenario, set up the six map sections as shown in the diagram below.

Map Set Up

Side A

Side B

BASIC GAME PILOT GENERATION CHART

Roll	Combat Pilot bonus	N-space Pilot bonus	Heavy Energy Projector bonus
1	20	40	35
2	25	40	30
3	30	30	40
4	35	55	35
5	40	45	50
6	45	70	60
7	50	50	45
8	60	80	40
9	70	70	55
10	80	90	65

3.1

SOLO SCENARIO

"The Drones Shoot Back!"

You are a promising SMAC cadet on a training exercise. The mission: engage unmanned target drones and destroy them. The *challenge*: these drones "shoot" back. Although they do no real damage to your SMAC, their low powered Lasers register hits on a damage simulation computer installed in your cockpit. Therefore, any damage received is treated as real, as the computer shuts down the appropriate systems. There is no fear of your SMAC being truely Disabled or Destroyed; only your pride can be wounded.

All drones may fire their Laser Cannon in any direction, and will automatically fire in accordance with their Initiative Ranking when your SMAC is in range. A drone can only be desroyed by receiving Concussion Hits in access of their Hit total. Drones are immune to Critical damage.

TARGET DRONE MOVEMENT

When a drone is to move during the Movement Phase, roll 1D10 and consult the following table. The movement instructions are given in a code of the form X—"Y", where X is the number of hexes to be moved, and "Y" is the direction of the move.

Roll	Movement
1	No movement
2	1—"1", then 3—"2"
3	3—"3", then 2—"4"
4	2—"5", then 4—"6"
5	4—"1", then 2—"6"
6	2—"5", then 3—"4"
7	3—"3", then 4—"2"
8	4—"5", then 1—"4"
9	1—"3", then 3—"2"
10	3—"1", then 3—"6"

FORCES

Side A — You may chose from any of the Basic Game SMACs provided in Section 21.0.

Side B — Target drones. Roll 1D10 for the target drone mix. This 1D10 roll is modified by the SMAC you are piloting: Ferret(-2), Fire Brand(-1), Thunder Bird(+1), Night Hawk(+2). Results below 1 are treated as 1. Results above 10 are treated as 10.

SET UP

Side A — Start your SMAC on any Map edge hex.

Side B — Start all target drones in the center of the Map, in the same hex and facing the same direction ("1").

DURATION

This scenario lasts until the Victroy Conditions are fulfilled.

VICTORY CONDITIONS

Side A — You win if all target drones are destroyed.

Side B — The target drones win if you are "disabled" or "destroyed" while at least one drone remains on the Map.

TARGET DRONE CHARACTERISTICS						
Type	Laser Mk.#	Total OB	CAT	Total DB	Hits	Initiative Number
I	6	80	22	50	20	50 + D100 (roll each Round)
II	8	100	23	40	30	80 + D100 (roll each Round)
III	10	150	24	30	40	100 + D100 (roll each Round)
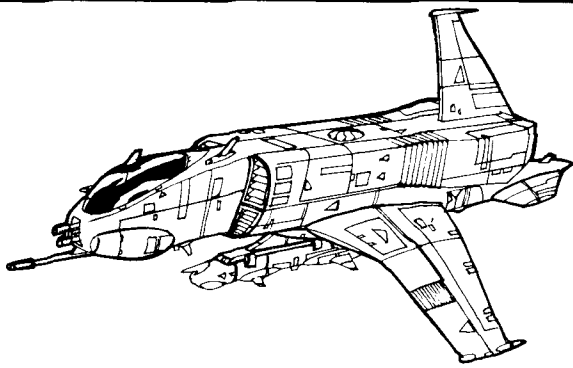
3.2

TWO PLAYER SCENARIO
"The SMACs Square Off!"

In this scenario, players field their SMACs in a fight to the finish.

FORCES

To begin the game, both players should agree on which of the following options should be used to determine the force mix. If the players can not agree, use Option 1.

A pilot should be randomly generated for each SMAC (see Section 3.0).

Then both players should roll 1D100. The high roller is Side B, while the low roller is Side A.

Option 1:

Side A — 3x Fire Brands.

Side B — 2x Intruders.

Option 2: Side B starts by declaring the "mass limit" for the scenario. That is, Side B decides the total number of tons (see Section 21.0) worth of SMACs that may be flown by each Side in the scenario. A good range would be 200 to 500 tons. As an example, if the Mass limit was set at 400 tons, each Side could have a combination of SMACs whose masses added up to, but did not exceed, 400 tons.

Side A — After Side B sets the mass limit, Side A selects the SMAC(s) he will field, but may choose from no more than three types of SMACs.

Side B — After Side A has selected his SMAC(s), Side B makes his selection(s), and must choose only from the remaining types, if possible.

SET UP

The two Sides set up simultaneously at opposite ends of the Map within 3 hexes of their respective Map edges..

DURATION

The game ends when 10 Rounds have past **OR** when all the SMACs of one Side have been disabled or destroyed, or have fled the battle.

Note: A SMAC may "flee the battle" (remove the SMAC from the board) when that SMAC are at least 20 hexes away from all opposing SMACs at the end of a Movement Phase. A Ferret may never "flee the battle".

VICTORY CONDITIONS

At the end of the game, each Side should calculate the cost of his losses. To do this, multiply the cost (see Section 21.0) of a Disabled or Destroyed SMAC by the Pilot Rank of the pilot flying it. Add up the modified costs of all SMACs Disabled or Destroyed during the battle. The Side with the lowest loss total wins the game.

3.3

TEAM SCENARIO
"Star Strike Free For All"

The team game can be played in one of two ways; either as a straight-up two sided fight, or as a multi-player demolition derby with no set alliances.

Below is a listing of the various forces which may be chosen for use in this scenario. To begin the game, all players should roll 1D100. Highest roller chooses first, second highest roller chooses second, etc. A force may not be choosen twice, unless the number of players in the game exceeds six, in which case the seventh and later players may choose a force already choosen once.

FORCES
Force "A": 5 x Ferret
Force "B": 4 x Fire Brand
Force "C": 3 x Spirit Rider
Force "D": 3 x Intruder
Force "E": 2 x Thunder Bird
Force "F": 1 x Night Hawk

After a player's force is selected, he should generate all of the Pilots necessary and average the Pilot Ranks of all the individuals he is controlling. For instance, if a player needs three Pilots and rolls a 2, 5 and 8 on the Generation Chart, the average of his Pilot Ranks would be "5".

There are two ways in which this sceanrio can be played (Option 1 and Option 2).

Option 1: The players must split themselves into two descrete Sides, with half of the players forming Side A, while the others form Side B. To determine who plays on which Side, select two captains. The captain of Side A is the player with the highest Average Pilot Rank. The captain of Side B is the player with the second highest Average Pilot Rank. The two captains alternate choosing other players for their Side, with the Side B captain choosing first.

Option 2: each player fights for himself, and there are no set Sides. A player's SMACs may fire at the SMACs of any other player.

SET UP

Option 1: The two Sides set up simultaneously at opposite ends of the Map within 3 hexes of their respective Map edges.

Option 2: All players roll 1D100: the lowest roller sets up (anywhere) first, the second lowest roller sets up (anywhere) next, and so on until the highest roller sets up last.

DURATION

The game ends when 10 Rounds have past **or** when only one Side/player has undisabled, undestroyed SMAC(s) remaining on the board.

Note: A SMAC may "flee the battle" (remove the SMAC from the board) when that SMAC are at least 20 hexes away from all opposing SMACs at the end of a Movement Phase. A Ferret may never "flee the battle".

VICTORY CONDITIONS

At the end of the game, each Side/player should calculate the cost of his losses. To do this, multiply the cost of a Disabled or Destroyed SMAC by the Pilot Rank of the Pilot flying it. Add up the modified costs of all SMACs Disabled or Destroyed during the battle; then add the cost of SMACs which "fled the battle" (do **not** multiply by Pilot Rank). The Side/player with the lowest total wins the game. If two or more players tie during an Option 2 game, they draw.

PART II: THE STANDARD & ADVANCED GAMES

4.0
THE STANDARD GAME

The Standard Game builds on the systems introduced in the Basic Game by layering on additional detail and broadening scope.

- Your Standard Game Pilots will be defined by several more characteristics.
- Other crewmembers will be introduced.
- A complete selection of starcraft are available, from the smallest SMACs on up. In fact, with the Standard Game rules, you will be able to play out any engagement involving fighters, gunboats, cruisers, dreadnoughts or space stations.
- Missiles, Torpedoes and a wider array of Cannons are added to your weaponry selections, as well as multi-functional Payload Pallets.
- The movement rules are expanded to account for momentum.
- Damage Control rules are introduced.
- A complete run down of the interpretation of Critical hit results is provided.
- Orientation Phase actions are expanded to their complete listing.

Note: *The terms starcraft and vessel are equivalent in these rules.*

MT LIMITATIONS ON BONUSES

One of the more important concepts introduced in the Standard Game is that of limiting the Combat Pilot Bonuses and Rated Program (Tactics, Predict and Evade) bonuses based upon the current Maneuvering Thrust of a vessel. The rationalization of this is simple: without maneuverability and responsiveness, a pilot and computer are hard pressed to perform at their optimum levels.

Use the *Bonus Limits Chart* to determine the maximum bonuses allowed by the vessel's Maneuver Thrust. Note that damage or malfunctions can reduce the number of MTs available, thus reducing the maximum allowable bonuses for each bonus area.

CREW CONTROL VS. COMPUTER CONTROL

Another concept introduced in **Star Strike** is the influence of a starcraft's crew on the outcome of battle. Computers of the complexity assumed in the **Space Master** universe are sophisticated enough to run starcraft and other intricate systems by themselves. However, it is assumed that live, sentient crews are required to make the machinery function at optimum levels. Thus, non-crew directed activities suffer significant penalties; Crew Casualties and Central Fire Control are good examples of this.

MASS CATEGORIES

All vessels in **Star Strike** fall into one of four Mass Categories: Small, Medium, Large and Super Large. The cardboard counters provided with this game come in four sizes corresponding to these categories. Mass Categories are used throughout the rules for many of the game mechanics (e.g., criticals, ramming, construction, etc.).

BONUS LIMITS CHART
(For Combat Pilot, Tactics, Predict, and Evade)

Vessel's Present Maneuvering Thrust	Maximum Bonus Limit for Combat Pilot and Rated Programs
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	54
12	58
13	62
14	66
15	70
16	75
17	80
18	85
19+	100

4.1
STANDARD GAME PILOTS AND GUNNERS

In the Standard Game, pilot attributes are expanded from three (Basic Game) to six. For the new pilot attributes, roll 1D10 and cross-index the result on the *Standard Game Pilot Generation Chart*.

The Basic Game attributes are Heavy Energy Projector bonus, Combat Pilot bonus, and N-space Pilot bonus. The new attributes are:

Projectile Gunnery bonus: this bonus is used when firing Auto Cannons.

Missile bonus: this is used when firing Missiles (but not Torpedoes) at opponents.

Total Hit Points: this reflects the amount of damage that can be taken personally before becoming unconscious. Crewmembers will take personal damage as indicated on the various *Critical Result Tables*.

STANDARD GAME PILOT GENERATION CHART

Roll	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Projectile Gunnery Bonus	Missile Bonus	Total Hit Points
1	20	40	35	40	35	15
2	25	40	30	30	40	17
3	30	30	40	25	45	20
4	35	55	35	10	20	23
5	40	45	50	10	25	26
6	45	70	60	5	20	29
7	50	50	45	15	50	33
8	60	80	40	20	30	37
9	70	70	55	10	15	41
10	80	90	65	15	20	45

GUNNERS

The Standard Game introduces multi-manned vessels. It will therefore be necessary to determine the attributes of starcraft Gunners. As with Pilots, roll 1D10 to randomize Gunner characteristics using the *Standard Game Gunner Generation Chart*.

Gunners only have four of the pilot attributes:

- Heavy Energy Projector bonus
- Projectile Gunnery bonus
- Missile bonus
- Total Hit Points

EXPERIENCE

It is possible for players to keep the same Pilots and Gunners from game to game. Thus, over time, Pilots and Gunners that are victorious, and survive battles, will become more proficient and experienced.

Note: *Ignore the following guidelines if you are using* **Space Master: The Role Playing Game** *characters.*

- If a *Pilot* is on the winning side of a scenario, he can "raise one level of experience" (see below).
- If a *Pilot* fires the weaponry that destroys armed vessel(s) of a cumulative tonnage at least equivalent to his own, he can "raise one level of experience".
- If a *Gunner* fires the weaponry that disables or destroys an armed vessel, he may "raise one level of experience".
- Each Pilot and Gunner may only "raise one level of experience" per scenario.
- "Raising one level of experience" is accomplished by picking **one** attribute and incresing its value by 5. An attribute's value may **not** be raised above 100.

Note: *A pilot's Combat Pilot bonus may never exceed his N-space Pilot bonus.*

STANDARD GAME GUNNER GENERATION CHART				
Roll	**H.E.P Bonus**	**Projectile Gunnery Bonus**	**Missile Bonus**	**Total Hit Points**
1	10	5	15	15
2	20	10	10	17
3	30	15	5	20
4	40	25	40	23
5	50	10	50	26
6	55	50	25	29
7	60	20	20	33
8	65	15	45	37
9	70	30	35	41
10	75	35	30	45

4.2

THE STANDARD GAME SEQUENCE OF PLAY

The Basic Game Sequence of Play is expanded in the Standard Game.

SEQUENCE OF PLAY

1: Missile/Torpedo Launch Phase
2: Initiative Phase
3: Movement/Maneuver Phase
4: Projectile/Energy Fire Phase
5: Missile/Torpedo Results Phase
6: Final Orientation Phase

EXPANDED SUMMARY

Missile/Torp. Launch Phase:
1) Each Missile Launcher Gunner selects a target within Launchers' covered arc and attempts a Lock-on.
2) Each Missile Launcher Gunner with a Lock-on declares if, and how many, Missiles are launched at target.
3) Torpedoes are discharged; place Torp markers on the Map.

Initiative Phase:
1) Each player splits his pilot's Combat Pilot bonus between OB and DB (see Section 2.5).
2) Each player determines his vessel's Initiative Number (IN) for the round (see Section 2.6).

Movement/Maneuver Phase:
1) Every vessel with "Acquired Momentum" must "Drift" (see Section 4.6).
2) The vessel with the lowest Initiative Number moves first, the vessel with the 2nd lowest IN moves, the vessel with the 3rd lowest IN moves, and so on until all of the vessels have moved. Moving Starcraft may attempt Maneuvers (see Section 4.7).

3) Each Torpedo moves immediately after its target moves.
4) Remove Torpedoes (i.e., they self-destruct) whose targets have disengaged **or** whose targets no longer lie within their "tracking sphere" (see Section 4.4).

Projectile/Energy Fire Phase:
1) In accordance with their vessel's Initiative Number (i.e., highest first, second highest next, etc.), each Pilot and Gunner may fire the Cannon(s) of one Weapon Mount each.
2) All Projectile/Energy fire from an attack is resolved and the damage applied immediately (i.e., before the next combatant fires).

Missile/Torp Results Phase:
1) Resolve all Missile attacks declared during the preceding Missile/Torpedo Launch Phase.
2) The attacks of all Torpedoes entering their target's hexes are then resolved.

Final Orientation Phase:
Each vessel may *attempt* one of the following activities (see Section 4.11):
• Regain control of "Out of Control" starcraft.
• Repair Routine or Light Damage/Malfunction with automatic Damage Control system.
• Extinguish internal fire with Damage Control system.
• Detect an unrevealed foe.
• Use Sensors.
• Reorient Screens.
• Receive and/or transmit one Microfreq communication.
• Self destruct

4.3

MISSILES

In the Standard Game, the first Phase in every Round is the Missile/Torpedo Launch Phase. Missiles are quite distinct from Torpedoes, both in their capabilities and usage, so it would be best to get the differences straight. A *Missile* is a small, short range and very fast moving warhead delivery system with only a limited internal guidance system. They are available only in Mk. #'s 6, 7, 8, 9 and 10.

Torpedoes, on the other hand, are slower warhead delivery systems with longer range; they are capable of tracking a target independently and following it for some time. Torpedoes also have internal EW generators and are available in MK.#'s 6 through 50 inclusive. Missiles are dealt with here, while Torpedoes will be handled in Section 4.4.

MISSILE PARAMETERS

Missiles generally contain explosive warheads with proximity detonation fuses. They are only available in Mk.#'s 6, 7, 8, 9, and 10. There are no Missile units included in **Star Strike**; they are unnecessary. Missile fire and flight is handled by the game's mechanics.

All Missile attacks are resolved during the same Roundin which they are fired.

Starcraft, constructs (like satellites) and Torpedoes are all acceptable targets for Missiles; other missiles are not.

PROCEDURE

The Missile fire procedure refers to Gunners, but it also applies to Pilots firing Missiles from a forward facing mount.

During the Missile/Torpedo Launch Phase, each Gunner wishing to fire Missiles may attempt to Lock-on to a target within range. The target must also lie within the Covered Arc (see Section 4.8) of the Missile Weapon Mount (i.e., Launcher). Note that a Gunner may only discharge one Weapon Mount per Round.

• To Lock-on to a selected target, make a **Modified Roll** =
Open-ended Roll
+ Gunner's Missile bonus
+ firing vessel's EW value
- target's EW value
+ Damage/Casualty Modifiers
• If the Modified Roll exceeds 100 (i.e., 101+) the Lock-on is *successful* and Missile(s) from that Gunner's launcher may be fired against that target this Round.

- Otherwise, the Lock-on is *unsuccessful* and missile(s) may not be fired.
- After a Lock-on has been achieved, the Missile Launcher Gunner may select the number of Missiles remaining in his Launcher to be fired at the target.
- The number of Missiles that may be fired at the target by a given firing vessel is limited by the target's Mass Category:

Target Size	Maximum # of Missiles From Each Firing Vessel
Small	9
Medium	29
Large	49
Super Large	No Limit

- At this point all players know how many missiles have been fired and at what targets.

Missile firing *range limits* are dependant on the missile's Mk. #. In most cases, the range in hexes to a target may not exceed the Mk.# of the Missile (e.g., a Mk.7 Missile may fire at a vessel up to 7 hexes (km) away). However, if the missile's target is a Torpedo that has been fired at the Missile's firing vessel, the range of those Missile(s) is increased to the Mk.# x 5 hexes (km) (since the Torpedo is heading directly towards the vessel).

Missile attacks are not resolved until the Missile/Torpedo Results Phase. So players must keep track of the number of Missiles fired from each Launcher and the intended target.

Once a Launcher's Missile magazine has been exhausted, it may no longer fire Missiles.

Barring the Disengagement of the target vessel (see Section 4.7), all Missiles fired at a target which began the Round within range of the firing Launcher will make a Combat Roll to determine the effects of their detonation during the Missile/Torpedo Results Phase.

Note: *Lock-on may be declared and resolved in any convenient order. But, if any player wishes Lock-on declaration to be secret, all players must declare Lock-on intentions in secret (i.e., write them down). After everyone has secretly declared, all Lock-on attempts are revealed and resolved. This also applies to the declarations of the number of missiles to be fired.*

MISSILE SALVO CHART

Number of Missiles Fired	Explosive Warhead Mk.# Threshold	Offensive Bonus Modification	Concussion Damage Multiplier
1	Mk.10	0	x1
2	Mk.10	+4	x1
3	Mk.10	+6	x1
4	Mk.10	+8	x1
5-9	Mk.10	+10	x2
Maximum Effective Limit Against Small Target			
10-19	Mk.10	+15	x3
20-29	Mk.20	+20	x4
Maximum Effective Limit Against Medium Target			
30-39	Mk.30	+30	x6
40-49	Mk.40	+40	x8
Maximum Effective Limit Against Large Target			
50+	Mk.50	+50	x10
Maximum Effective Limit Against Super Large Target			

ATTACK RESOLUTION

To resolve a Missile attack, consult the appropriate *Warhead Attack Table* (for most missiles this will be the *Explosive Warhead Attack Table* 19.7).

- The Modified Roll used to resolve a Missile Attack receives a bonus based upon the number of Missiles fired by a given Launcher that Round; consult the *Missile Salvo Chart.*
- To make a Missile attack against a selected target, make a Modified Roll:
  a) Make an Open-ended Roll
  b) Add the Gunner's Missile bonus
  c) Add the Mk# of the Missile(s) used
  d) Add any OB Modifier for discharging multiple Missiles
  e) Subtract the target's DB
  f) Add Damage/Casualty modifiers

- **Modified Roll =**
  Open-ended Roll +
  + Gunner's Missile bonus
  + Mk.# of the Missile
  + OB Modifier due to Multiple Missiles
  - target's DB (   )
  + Damage/Casualty Modifiers
- Using the appropriate attack table, the Modified Roll is cross-indexed with the target's CAT to determine the result.

- Once a Missile is fired, its attack is always resolved; however the Gunner's Missile bonus is not factored into the Modified Roll If:
  a) The firing vessel has Disengaged, or has been disabled, or has been Destroyed, **or**
  b) The Missile Launcher's Gunner was injured in any way during the preceding Projectile/Energy Fire Phase, **or**
  c) Central Fire Control is used (i.e., no Gunner is available).

ALTERNATIVE WARHEADS

Nuclear Warheads are available for Missiles. However, the rules covering their use are covered in the Optional Rules; particularly with respect to Blast Radius and attack thresholds.

TORPEDOES

As explained in Section 4.3, Missiles and Torpedoes are two different weapon types. Although Torpedoes are more flexible as attack delivery systems, they are slower than Missiles, and easier for the intended target to evade.

Vessels use the starcraft system know as the *Payload Pallet* to carry and fire Torpedoes. Torpedoes are **not** fired by Missile Launchers. A Torpedo may be directed against a target lying in any direction or attitude from the firing vessel.

Torpedoes are represented by a *unit* on the Map during the flight towards their target.

Note: *Torpedoes may be attacked, damaged, and destroyed by other vessels using the normal attack rules.*

TORPEDO PARAMETERS

Unlike Missiles, Torpedoes come in a wider variety of sizes (MK.#'s 6 to 50 inclusive). They generally contain explosive warheads.

To be fired, a Torpedo must be mounted on a Payload Pallet with a Mk.# at least as large as the Torpedo's Mk.#. Each Payload Pallet may mount only one Torpedo.

The *Torpedo Chart* lists Torpedo Types; a given Torpedo Type may have any Mk.# between 6 through 50 inclusive.

All Torpedoes may chase their targets for 1 hour (360 Rounds). In game terms, this duration should be treated as unlimited (i.e., don't bother to keep track of it).

PROCEDURE

During the Missile/Torpedo Launch Phase, any vessel wishing to fire Torpedo(s) may do so by declaring target(s) and the number of Torpedoes fired.

TORPEDO TRACKING SPHERE

Tracking Sphere

Blind Zone

If, at the end of a Movement Phase, a Torpedo's target lies outside of the Tracking Sphere (i.e., in the Blind Zone), the Torpedo will self destruct.
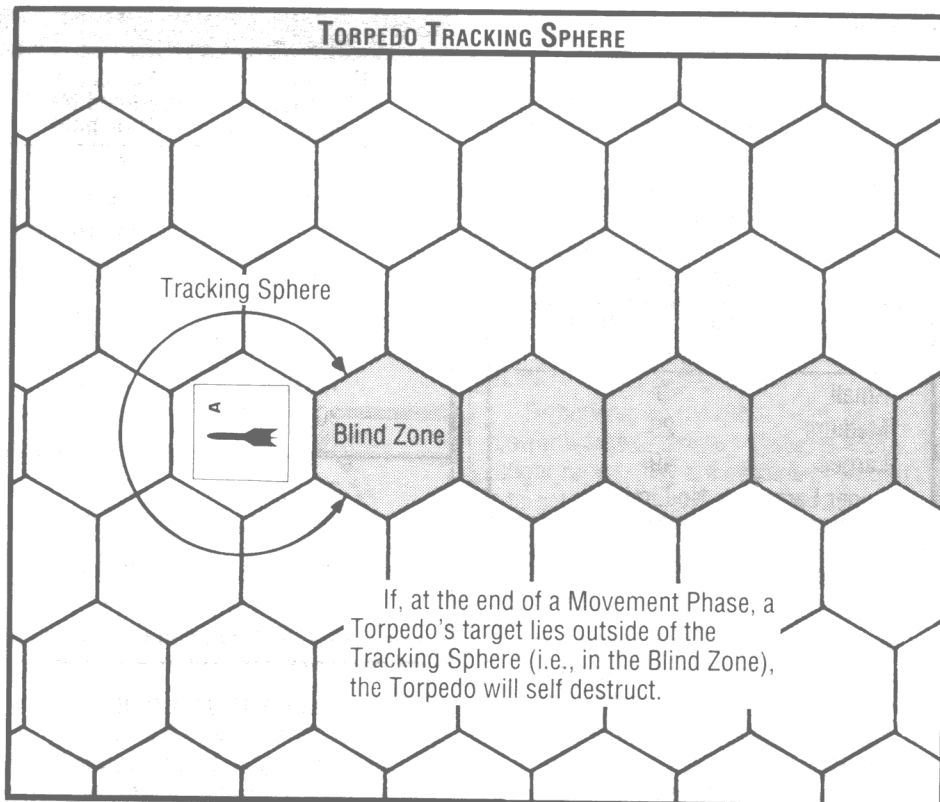
- Each Torpedo may only have one target.
- A Torpedo's target must be within 50 hexes (km's) per Sensor Rating # of the firing vessel.
- Any vessel, construct, or Torpedo may be a target for Torpedo fire as long as:
  a) the target is not cloaked by EW (see Section 4.11) **and**
  b) the firing vessel has an operating Sensor system.
- Unlike Missile Launcher fire, any number of targets may be fired at during a Round.
- A Torpedo is considered to be automatically Locked-on to its target, and will move towards that target.

- At the end of every Movement and Maneuver Phase, a Torpedo will detonate (remove from the map) if:
  a) it has entered its target's hex **or**
  b) its target has Disengaged or has been Destroyed **or**
  c) its target is no longer within the *tracking sphere* of the Torpedo (see graphic above).

When a Torpedo is fired, place a Torpedo unit on the map in the firing vessel's hex. A Torpedo must be placed on the map with the same facing and momentum as the firing vessel (use a Dummy counter to indicate momentum, see Section 4.6). If the firing vessel's momentum is zero, the Torpedo unit may be placed on the map facing in any desired direction.

Once on the map, a Torpedo will attempt to home-in on (i.e., move towards) its respective target during the Movement and Maneuver Phase using the MTs listed in the *Torpedo Chart*. Each Torpedo moves immediately after its target has moved during the Movement and Maneuver Phase.

TORPEDO CHART						
Type	AT(DB)	EW	Hits	MTs	Offensive Bonus	Cost Multiplier
Standard	21(10)	10	1	12	Mk.# + 50	1.0
Armored	23(10)	10	5	12	Mk.# + 50	1.5
Express	21(10)	10	1	20	Mk.# + 50	2.0
Stealth	21(40)	40	1	10	Mk.# + 50	2.5
Supreme	22(40)	40	1	15	Mk.# + 50	3.0

Torpedoes move exactly like starcraft, expending MTs and acquiring momentum (see Section 4.6). The player whose vessel fired the Torpedo decides how the Torpedo will move. A Torpedo may be moved in any way desired by its controlling player as long as he attempts to decrease the range to the target.

Note: *Torpedo launch and targeting may be declared and resolved in any convenient order. But, if any player wishes these declarations to be secret, all players must declare launchings and targeting in secret (i.e., write them down). After everyone has secretly declared, all declarations are revealed.*

DETONATION

If a Torpedo enters the same hex as its target during the Movement and Maneuver Phase, it will end its movement immediately (i.e., it detonates), attempting to inflict damage on the target. This detonation is resolved during the Missile/Torpedo Results Phase.

If a Torpedo detonates because its target is not in its tracking sphere or because its target has Disengaged or has been Destroyed, the detonation has no effect on any vessels (exception: Alternative Warheads, see below).

Special Detonation: A Torpedo's attack is resolved immediately if its target enters the Torpedo's Location (i.e., hex).

ATTACK RESOLUTION

To resolve a Torpedo attack, consult the appropriate *Warhead Attack Table* (for most torpedoes this will be the *Explosive Warhead Attack Table* 19.7).

• To make a Torpedo attack against a selected target, make a Modified Roll:

a) Make an Open-ended Roll

b) Add the Torpedo's OB

c) Subtracting the target's DB.

• **Modified Roll =**
Open-ended Roll
+ Torpedo's OB
- target's DB

• Using the appropriate attack table, the Modified Roll is cross-indexed with the target's AT to determine the result.

ALTERNATIVE WARHEADS

Nuclear and Matter/Antimatter Warheads are available for Torpedoes. However, the rules for their use are covered in the Optional Rules; particularly with respect to Blast Radius and attack thresholds.
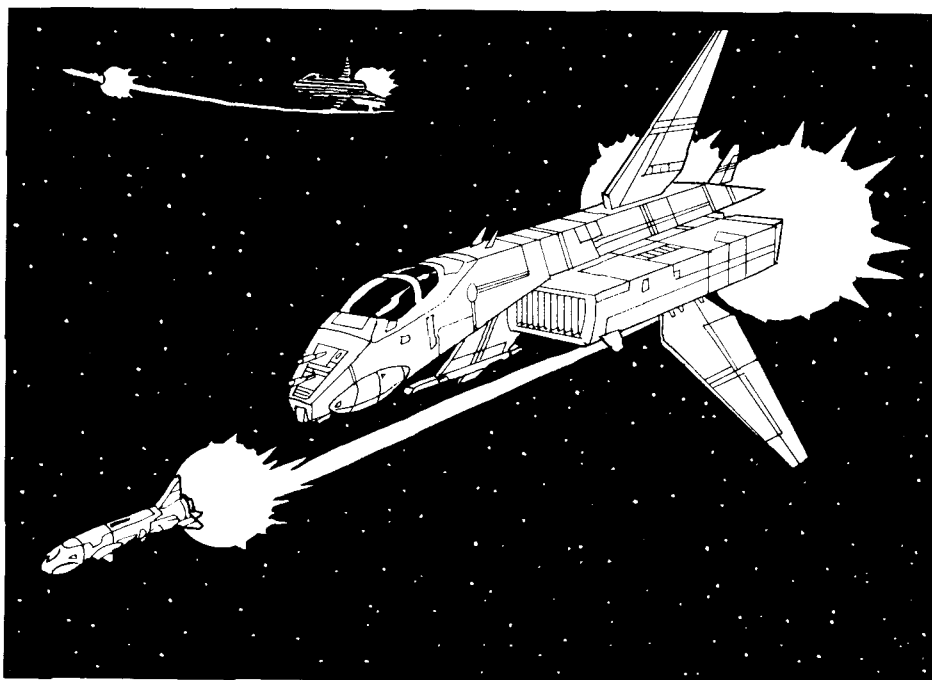
4.5
INITIATIVE

In all respects, Standard Game Initiative determination is performed in the same way as in the Basic Game (see Section 2.6).

As in the Basic Game, Initiative determines the order in which combatants move and fire. However, in the Standard Game, things can become somewhat less certain through the performance of *Maneuvers* and *Multiple Mount Vessel Attacks*. These concepts will be introduced and more thoroughly explained in the following sections (4.7 and 4.8).

To calculate your vessel's Initiative Number, add five factors together:

Initiative Number =
Open-ended Roll
+ Pilot's Combat Pilot bonus
+ computer's Tactics Program Bonus
+ vessel's Maneuver Thrust
+ Damage/Casualty Modifiers

As a vessel takes damage in combat, its Maneuvering Thrust may be decreased. This will possibly cause a drop in the pilot's applicable Combat Pilot bonus and in the Tactics Program bonus. To determine the maximum levels of these bonuses as a function of the vessel's present Maneuvering Thrust, refer to the *Bonus Limits Chart* displayed at the right.

BONUS LIMITS CHART
(For Combat Pilot, Tactics, Predict, and Evade)

Vessel's Present Maneuvering Thrust	Maximum Bonus Limit for Combat Pilot and Rated Programs
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	54
12	58
13	62
14	66
15	70
16	75
17	80
18	85
19+	100

4.6

MOVEMENT

The mechanics for movement in the Standard Game are expanded to more accurately simulate the effects of momentum. These effects are still somewhat abstracted to make play easier and more fluid.

THRUST

Your vessel has a Maneuver Thrust value which should be entered on a Starcraft Display. During each movement phase, your vessel may expend these Maneuver Thrust points (herein referred to as MTs) to:

- Accelerate and enter new hexes
- Turn within a hex
- Decelerate within a hex.

Your vessel may not expend more MTs during a Movement Phase than it has available, although it could expend fewer. MTs may not be accumulated from Round to Round, they are either spent, or lost.

Note that due to the wider variety of starcraft available for use with the Standard Game, Maneuvering Thrust values will generally cover a wider range than those found in the Basic Game. As a guideline, players will find that the larger their ships become, the fewer MTs they will have available to expend each Round.

The consequence of a reduced MT level becomes apparent when the Standard Game's wider variety of weapons comes to light. In general, the slower a vessel, the larger the Mk.# of Cannon that will be able to track and hit it. The correlation between viable Cannon Mk.# attack and target Maneuvering Thrust can be found on the *Targeting Restrictions Chart*.

TARGETING RESTRICTIONS CHART	
Proj. / Energy Cannon Mk.#	**MT Limit for Small or Medium Sized Targets**
6-10	No limit
11-20	10 or less MTs available
21-30	6 or less MTs available
31-40	3 or less MTs available
41-50	1 or less MTs available

ACCELERATION

When accelerating straight ahead, a vessel must enter the hex directly in front of it. A vessel can enter a new hex for every MT it expends.

MOMENTUM

As a vessel expends MTs and moves forward, it builds up momentum. The value of the momentum built up is equal to the number of hexes moved in a straight line since the hex in which the vessel last had zero momentum.

Note: *During play, each vessel is represented by two counters: the vessel counter and the vessel's "dummy" counter. The vessel counter represents the vessel's actual location, while its dummy counter represents its last "Zero Momentum" location. The distance from the dummy counter to the vessel counter is the vessel's "Acquired Momentum".*

A hex in which a vessel has zero momentum is one in which:

1) it has started a scenario at zero Acquired Momentum, **or**
2) it has preformed a turn, **or**
3) it has completely cancelled its previous momentum through deceleration.

Example: *Fire Brand "A" turns in a hex and begins to move out of it in direction "5". Dummy "A" is placed in the hex where the turn is performed, and it is placed so as to point in direction "5". The Fire Brand moves seven hexes straight. Its momentum is now 7 in direction "5". This may be noted as 7(5).*

MOMENTUM

Fire Brand A acquires momentum 7(5).
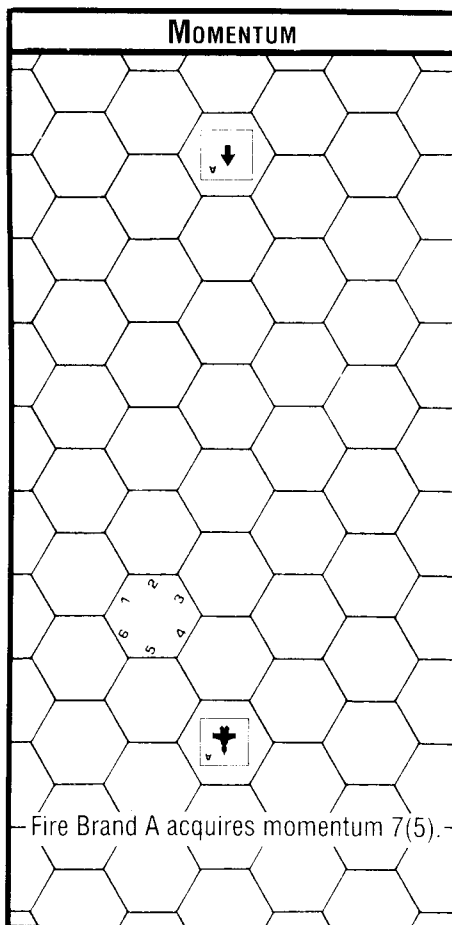
TURNING

A vessel's momentum must be cancelled in order for the vessel to turn and begin moving in a new direction. Although not true frictionless vector movement, such a system will suffice for this simulation. (See the Optional Rules for a more realistic treatment.)

Every time you want to turn, you will have to expend a number of MTs equal to your Acquired Momentum (i.e., usually the distance you have moved in a straight line). Such an expenditure drops your Acquired Momentum to 0 and you may immediately make a free turn, changing your vessel's facing by one hexside in either direction.

When a vessel's Acquired Momentum is zero, additional turns may be made at an expenditure of one MT per hexside changed. In a similar vein, if a vessel starts a Round with 0 momentum, turns may be performed at a cost of 1 MT per hexside changed before any subsequent acceleration.

Example: *Fire Brand "A" has an Acquired Momentum of 7 in direction "5". "A's" player now wishes to be pointing in direction "3". He must spend 7 MTs to turn towards direction "4". "A's" Acquired Momentum immediately drops to 0, and so Dummy "A" is moved into the hex, pointing in direction 4. Then 1 MT is spent to turn towards direction "3". Dummy "A" is turned towards direction "3".*

TURNING

7 MTs

1 MT
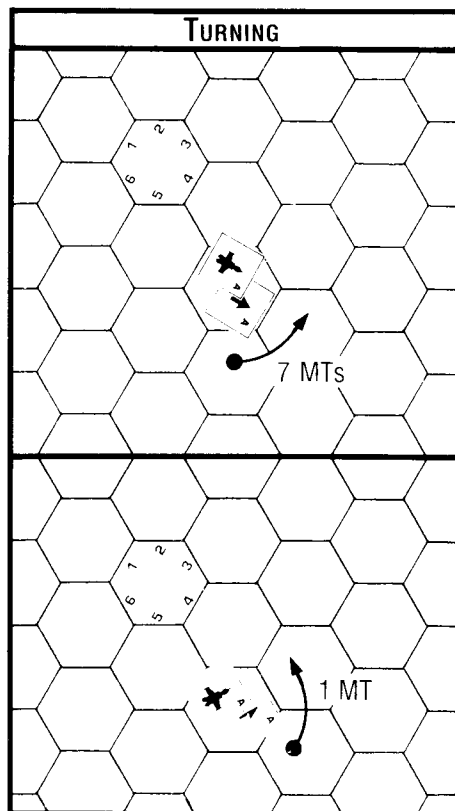
DECELERATION

If your vessel does not have enough MTs to drop its Acquired Momentum to 0, it may not turn. However, it may decelerate instead.

Any time during the Movement Phase, MTs may be expended to decelerate. It is assumed that your vessel's Maneuvering Thrusters can thrust forwards or backwards, so you do not have to spin your vessel around in order to decelerate.

Each Maneuver Thrust point expended to decelerate decreases the vessel's Acquired Momentum by 1. This is represented on the map by moving the vessel's Dummy counter towards the vessel.

Example: *Fire Brand "A" has an Acquired Momentum of 7 in direction "5". Dummy "A" is therefore 7 hexes behind the vessel. "A's" player wishes to decelerate, and has only 4 MTs left to spend for the rest of the Movement Phase. The player spends the 4 MTs to decelerate and so moves Dummy "A" 4 hexes towards Fire Brand "A". At the end of the phase, Dummy "A" is 3 hexes behind the vessel.*

DECELERATION
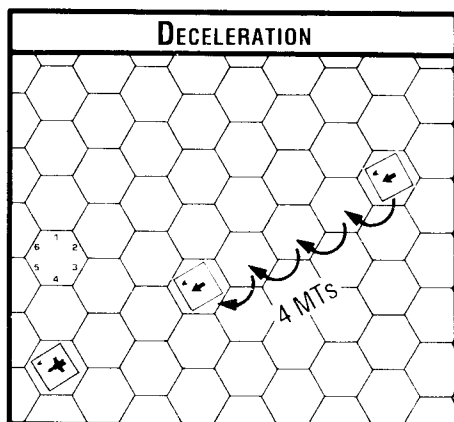
FINAL MOMENTUM

If your vessel possesses Acquired Momentum after it has completed movement (easily determined by noting that the vessel's Dummy counter occupies a different hex), you must write that Final Momentum down on your Starcraft Display in the appropriate column. Count the number of hexes from the Dummy to your vessel, and note the direction. Enter these values onto your Starcraft Display in the form X(Y), where X is the momentum and Y is direction in which the momentum has been accumulated. Just enter a zero if you have no Final Momentum.

Example: *At the end of movement in Round 2, Dummy "A" is 3 hexes behind Fire Brand "A", which is headed in direction "5". The vessel therefore has Final Momentum. The entry 3(5) is made on the Final Momentum column of the Starcraft Display for Round 2.*

DRIFT

Drift is the result of having Final Momentum on the previous Round. All vessels that make a Final Momentum entry into their Starcraft Display must immediately make an entry into the Initial Drift column for the next Round.

The Initial Drift value is equal to half of the Final Momentum (rounded off), in the same direction as the Final Momentum. On the Starcraft Display, Initial Drift is noted down in the same way that Final Momentum is, with the Drift value followed by its direction in parentheses. Just enter a zero if you have no Drift.

Example: *At the end of Round 2 movement, Fire Brand "A" has a Final Momentum of 3(5). "A's" player immediately enters 2(5) into the Initial Drift column for Round 3. Note that the Drift value is 2, which is half of 3 rounded off.*

DRIFT

Rnd #	Initial Drift	Combat Pilot OB/DB	Initiative #	Final Momentum	To 0
1	0	25/25	165	0	
2	0	35/15	182	3(5)	
3	2(5)				
4					
5					

Note the Drift entry on the Combat Round Record of the Starcraft Display.

The first action of the Movement Phase is for all vessels to Drift if they had Final Momentum during the previous turn. Drift is always performed before units begin their regular movement. All eligible vessels Drift simultaneously: To Drift, move your vessel, and your vessel's Dummy counter, a number of hexes equal to the Drift value in the direction noted on your vessel Display.

FINAL MOMENTUM

Rnd #	Initial Drift	Combat Pilot OB/DB	Initiative #	Final Momentum	To 0
1	0	25/25	165	0	
2	0	35/15	182	3(5)	
3					
4					

Note the Final Momentum entry on the Combat Round Record of the Starcraft Display.

Example: *Fire Brand "A" has an Initial Drift of 2(5) on Round 3. It is now time to Drift. "A's" player moves the vessel 2 hexes in direction "5". He then moves Dummy "A" 2 hexes in direction "5".*

DRIFT
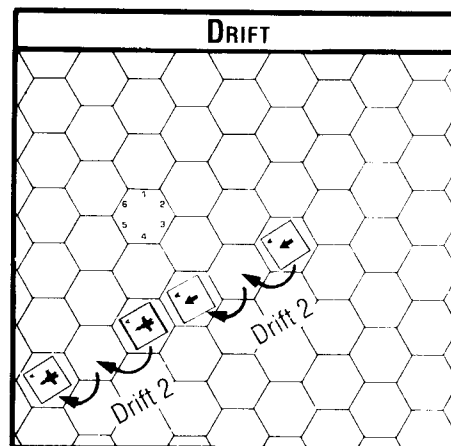
FINAL COMMENTS

Vessels move sequentially during the Movement Phase. The player of the vessel with the lowest Initiative Number completes his entire move first. Then the vessel with the next lowest Initiative Number completes its move, and so on through to the vessel with the highest Initiative Number, which moves last.

During the Movement Phase, you may spend your MTs accelerating and turning, in accordance with the Standard Game rules.

At the end of your move, you must note any Final Momentum, and your Initial Drift for the next Round.

Make sure your vessel's Dummy counter is correctly placed at all times.

There is no limit to the number of vessels which may occupy the same hex at the same time. It is important, however, to keep track of the order in which vessels enter the same Location at the end of movement. Stack vessel units which occupy the same Location one on top of the other. The vessel that entered the hex first should be at the bottom. The vessel that ended its move there next should be placed on top of the previous one. Continue this process, if necessary, with the last vessel to end its move in the hex placed on the top of the stack.

Note: *You should move in such a way that opens up the greatest number, or best, attack opportunities, while denying your opponents a good shot. This technique will come with practice.*

4.7 ████████████████

MANEUVERS

During the Movement and Maneuver Phase, players have the opportunity to perform certain *maneuvers*. All starcraft are restricted to attempting only one maneuver per Round. No vessel is required to make a maneuver; they are all voluntary.

Each Round, a starcraft may perform one, and only one, of the following maneuvers:

- Withhold MTs
- Disengage from battle
- Dodge detonating Explosive Torpedoes
- Engage one Tractor Beam
- Pursue a higher Initiative Ranked foe
- Launch from a carrier vessel
- Land on a carrier vessel
- Dock with another vessel/construct
- Grapple-to-board another vessel/ construct
- Ram
- Enter Hyperspace

These maneuvers are detailed below.

THE MANEUVER ROLL

Almost all of these Maneuvers will re- quire a Maneuver Roll to determine if they succeed. To make a Maneuver Roll add:

- an Open-ended Roll
- the appropriate Skill bonus (if any)
- the Difficulty Modifier
- any other applicable modifiers/bonuses

If the Maneuver Roll is over 100 (i.e., 101+), the maneuver is successful. Otherwise, the maneuver has failed and the consequences must be resolved and/ or applied (as documented in the following sub-sections).

STANDARD DIFFICULTY RATINGS AND MODIFIERS	
Difficulty Rating	**D100 Modifier**
Routine	+30
Easy	+20
Light	+10
Medium	0
Hard	-10
Very Hard	-20
Extremely Hard	-30
Sheer Folly	-50
Absurd	-70
Insane	-100

WITHHOLD MTs

If a pilot successfully performs this maneuver, he may withhold a small portion of his vessel's MTs in order to use them near the end of the Movement/ Maneuver Phase.

When a vessel successfully withholds MTs, its movement is temporarily sus- pended while the other vessels on the map complete their normal movement. Once all vessels have completed their normal movement and maneuvers, vessels which have successfully withheld MTs may expend their withheld MTs (i.e., move) in any way they see fit within the bounds of the regular movement rules. The order in which these vessels move is based upon the normal Initiative Ranking (i.e., lowest first, 2nd lowest next, etc.).

To withhold MTs, a pilot must declare that he is doing so at the precise point at which he wishes to withhold the rest of his MTs. The Maneuver Roll is modified by the pilot's Combat Pilot bonus (as restricted by the vessel's present Maneuver Thrust) and the difficulty modifier.

- If the pilot's Maneuver Roll is *successful*, he may temporarily suspend his vessel's movement and may expend the withheld MTs later in the phase.
- If the Maneuver Roll *fails*, the MTs that he attempted to withhold are "lost" and may not be expended this turn. In effect, the vessel ends its Movement Phase.

Maneuver Roll =
> Open-ended Roll
> + pilot's Combat Pilot bonus
> + Difficulty Modifier
> + Damage/Casualty Modifiers

Difficulty Modifier: The number of MTs withheld as a percentage of the vessel's total MT determines the difficulty of the Maneuver:

% of Total MTs	Difficulty Modifier
1-10%	Hard (-10)
11-20%	Extremely Hard (-30)
21-30%	Sheer Folly (-50)

Note: *Whether or not a vessel success- fully withholds MTs; a following Torpedo that enters the vessel's Location at any time during the Movement/Maneuver Phase, has its attack resolved normally.*

DISENGAGE FROM BATTLE

If a pilot successfully performs this maneuver, his vessel disengages from battle by using its Maximum Sublight Acceleration (MSA).

To disengage from a battle, a starcraft must have a functioning MSA capability for its Sublight Drive. A reduced MSA value is still sufficient for disengagement, as long as it is greater than zero.

Disengaging from a battle is a Medium (+0) Maneuver, which is performed at the beginning of a vessel's move. The Maneuver Roll is modified by the pilot's N- space Pilot bonus.

- If the maneuver is *successful*, the pilot's starcraft is removed from the map and may not return.
- If the maneuver *fails*, the vessel may only expend half of its MTs.

Maneuver Roll =
> Open-ended Roll
> + pilot's N-Space Pilot bonus
> + Difficulty Modifier: Medium (+0)
> + Damage/Casualty Modifiers

Note: *In the Standard Game the full capabilities of starcraft Sublight Drives become apparent. Besides the Maneuver- ing Thrust function, most (all, barring the effects of Optional Starcraft System, Section 8.7) Sublight Drives are capable of engaging in Maximum Sublight Accel- eration, hereafter referred to simply as MSA. MSA is a straightforward applica- tion of a Sublight Drive's thrust to propel a vessel along at tremendous velocities. When so engaged, however, plotting and targeting systems fail. A vessel using MSA may neither fire, nor be fired at. In game terms, a vessel that uses MSA effectively disengages from the battle and is removed from the map. A vessel which disengages from a battle using MSA may not return. Torpedoes have no MSA ability, and thus may not pursue disengaging vessels; they self-destruct instead.*

DODGE DETONATING EXPLOSIVE TORPEDOES

If an Explosive Torpedo(s) enter a target's Location, the target may be able to dodge the detonation(s) if both of the following conditions are met:

1) The dodging vessel's present Maneuvering Thrust value is at least half that of the fastest pursuing Torpedo detonating this Round.

2) The dodging vessel has a positive Sensor value.

To dodge detonating Torpedoes, make a Maneuver Roll immediately after the last pursuing Torpedo that will detonate this Round has entered the target's Location. This roll is modified by the pilot's Combat Pilot bonus (which may be restricted by the vessel's present Maneuver Thrust), and the difficulty of the maneuver.

- If the pilot's maneuver succeeds, all detonating Torpedoes have no effect.

- If the maneuver fails, some of the detonating Torpedoes may still be "dodged" by the vessel. The percentage of the Torpedoes that are "dodged" (round off) is equal to the Maneuver Roll value (e.g., a Maneuver roll of 43 would indicate that 43% of the detonating Torpedoes are dodged and have no effect). Of course a negative Maneuver Roll indicates that none of the Torpedoes are dodged. Use a random die roll to select the specific Torpedoes that are dodged.

Maneuver Roll =

  Open-ended Roll
  + pilot's Combat Pilot bonus
  + Difficulty Modifier
  + Damage/Casualty Modifiers

Difficulty Modifier: The number of Torpedoes being dodged determines the difficulty of the Maneuver:

Number of Torpedoes	Difficulty Rating
1	Medium (0)
2	Hard (-10)
3	Very Hard (-20)
4-5	Extremely Hard (-30)
6-10	Sheer Folly (-50)
11-20	Absurd (-70)
21-50	Insane (-100)
51+	Impossible (may not be dodged)

Example: *Three Mk.20 Explosive Torpedoes (2 Standard and 1 Armored) and two Mk.10 Explosive Torpedo (Express), enter their target's Location. The target has operating Sensors and a Maneuvering Thrust value of 18 which has been reduced to 11 by combat damage. It still has enough maneuvering power to attempt a dodge since half of the fastest (Express) Torpedoes' MT value is 10. The maneuver is Extremely Hard (-30) while the pilot's Combat Pilot bonus is 40. The Open-ended Roll is 69 so the Maneuver Roll winds up being a 79, indicating failure. However, 79% of 5 Torpedoes is 4 (rounded off), so the target dodges 4 Torpedoes and is only subjected to 1 Torpedo attack. A randomizing roll is then made to determine which of the Torpedoes resolves their attack. This can be done by rolling 1D10 with each torpedo represented by 1,2 or 3,4 or 5,6 or 7,8 or 9,0. The D10 roll is 7 so the fourth Torpedo takes effect.*

ENGAGE TRACTOR BEAM

Tractor Beams may be used in combat to hinder opponents' movement **or** to grapple a torpedo **or** to tow vessels not moving under their own power. The mechanics of each of these three activities will be dealt with separately, but first, here are some of the underlying principals for Tractor Beam use.

1) Grappling: Use of a Tractor Beam is called "*grappling*". To successfully grapple an unwilling vessel capable of expending MTs that Round, a shipboard Gunner must forfeit his regular attack capabilities for the Round and make a Maneuver Roll by rolling D100 and adding his Heavy Energy Projector bonus.

- If the Maneuver Roll *succeeds* (i.e., is 101+), the beam has grappled the target (provided it is within range, of course).

- If the Maneuver Roll *fails*, the target is not grappled this Round.

A Tractor Beam Maneuver Roll may be attempted at any time during the Movement/Maneuver Phase.

Tractor Beam Maneuver Rolls must be made every Round if a grapple on an unwilling vessel (with MTs to spend) is to be maintained. No Maneuver Roll is required to grapple, or maintain a grapple on, a willing, passive or Disabled vessel, construct or object.

2) Range: A Tractor Beam has a range in hexes (km) equal to its Mk.#. Therefore, a Mk.10 Tractor Beam could effect the movement of an object up to 10 hexes (km) away.

3) Capability: The normative capability of a Tractor Beam is directly proportional to the ratio of masses of the "beaming" vessel to the "beamed" object. Therefore, if a beamed object is twice the mass of the beaming vessel, the Tractor Beam is at "half strength" (i.e., its Mk.# is effectively cut in half for manipulation, but not range purposes). The consequences of this will become clear as the player reads on.

Grappling to Hinder Opponents' Movement: In combat situations it may be advantageous in some way to restrict your foe's mobility. Every 10 Mk.#'s of Tractor Beam strength grappling a target since it last moved reduces that target's effective Maneuvering Thrust (MTs) by 1 for the current Movement/Maneuver Phase. Multiple Tractor Beams from multiple vessels may add their effective Mk.#'s together for a cumulative effect on a target vessel's MTs.

A vessel which has its effective Maneuvering Thrust reduced to 0 (or lower) may not engage the MSA capability of its Sublight Drive, and so may not disengage from the battle.

A vessel whose Maneuvering Thrust is reduced below 0 may be moved (i.e., towed) a number of MTs equal to the amount that its Maneuvering Thrust is below 0. This movement is determined by the player controlling the most powerful Tractor Beam (if tied, roll off) grappling the vessel. This towing vessel must be of a higher Mass Category than the target vessel.

A vessel which has been successfully grappled by a Tractor Beam may not engage its Translight Drive.

Grappling a Torpedo: A torpedo may be grappled, and if successful, it is destroyed without detonating the warhead.

Towing a Vessel/Construct/Object: When a vessel is drifting, incapable of moving under its own power, or simply has its Sublight Drive unit powered down, a player may use a Tractor Beam to tow that vessel. In a similar way, unpowered constructs or inert objects may be towed.

The MTs available to a towing vessel are reduced only if the sum of the mass of all towed objects exceeds the mass of the towing vessel. If that is the case, reduce the MTs available for the Round by the ratio of the towing vessel's mass to the towed objects' sum mass. Therefore if a towed object is double the mass of the towing vessel, half the MTs are available for that Round of movement. If a towed vessel is three times the mass of a towing vessel, only one third of that vessel's MTs are available for the Round.

A towed vessel, construct or object must be within range of the towing vessel's Tractor Beam, and never changes relative position with respect to the towing vessel. Towed items gain momentum just as the towing vessel does, and if the grapple is lost for some reason, the item(s) will drift normally.

Maneuver Roll =
Open-ended Roll
+ Gunner's Heavy Energy Projector (HEP) bonus
+ Damage/Casualty Modifiers

PURSUE A HIGHER INITIATIVE RANKED FOE

Under certain conditions, a pilot may attempt to *Pursue* (i.e., to move after) a target with a higher Initiative Number. A Pursuit Maneuver may only be attempted if the following conditions are met at the beginning of the Movement and Maneuver Phase:

• The target is in the pursuing vessel's "forward covered arc" (see 4.8).
• The Pursuing vessel is in the target's "aft covered arc" (see 4.8).
• The target's Initiative Number is higher than the pursuing vessel's (which would normally force the pursuer to move first).

A *Pursuit Maneuver Roll* is modified by adding the pursuer's Combat Pilot bonus and subtracting the target's Combat Pilot bonus. There is an Easy (+20) Difficulty modifier if the pursuer is in the hex row directly astern (i.e., behind) of the target. A roll over 100 (101+) indicates success.

A successful Pursuit maneuver allows the pursuer to move after the target vessel (and any pursuing Torpedoes) move; essentially altering the pursuer's movement Initiative Ranking for the Round. A Pursuing vessel is free to move as it wishes.

Note: *The pursuer's original Initiative number is still used for determining when he fires weapons.*

A failed Pursuit maneuver entails no penalty; the pursuer merely moves in accordance with normal Initiative Ranking.

Restriction: A Pursuing starcraft may only fire its forward firing Weapon Mounts (see Section 4.8) at the pursued vessel. A Pursuing vessel may still fire other non-forward Weapon Mounts at will.

Maneuver Roll =
Open-ended Roll
+Pursuer's Combat Pilot bonus
- target's Combat Pilot bonus
+ Difficulty Modifier: +20 if directly astern of target; +0 otherwise.
+ Damage/Casualty Modifiers

LAUNCH FROM A CARRIER VESSEL

Smaller starcraft, such as SMAC Fighters, are often carried by larger ships into battle. If a carried vessel wishes to leave its carrier and operate independently, a Maneuver Roll must be made for each such smaller vessel in order to successfully Launch (i.e., "take off"). This roll (or rolls in the case of multiple vessel discharges), must be made just before the carrier vessel is about to begin its move. Launched vessels move immediately before their Carrier moves, start by facing the same direction, and retain their Carrier's Acquired Momentum.

The modifiers to the Maneuver Roll include the smaller vessel's N-space Pilot bonus and a Routine (+30) Difficulty Modifier. If the roll is over 100 (i.e., 101+), the smaller vessel is placed in the Location of the carrier, facing the same direction, and beginning with the same momentum.

If the Maneuver Roll indicates failure (i.e., less than 100), the smaller vessel may not leave the carrier this Round. If the Maneuver roll is less than 0, the smaller vessel is considered to be Disabled and unavailable for use during the game.

Maneuver Roll =
Open-ended Roll
+ N-Space Pilot bonus of vessel being launched
+ Difficulty Modifier: Routine (+30)
+ Damage/Casualty Modifiers

LAND ON A CARRIER VESSEL

A smaller vessel may dock in its designated bay on board a carrier vessel by fulfilling the following criterion at the end of the Movement and Maneuver Phase:

• Both vessels must occupy the same Location (hex)

• Both vessels must be faced in the same direction
• Both vessels must have identical momentum.
• The smaller vessel must make a successful Maneuver Roll at the end of the Movement and Maneuver Phase (modified by its N-space Pilot bonus and a Light (+10) Difficulty Modifier).

If the Maneuver Roll indicates failure (i.e., less than 100), the docking may be re-attempted on the following Round.

If the modified roll is less than 0, the smaller vessel is considered to be Disabled and drifting, unable to move or dock under its own volition. In this case, the carrier vessel takes a number of Concussion Hits equal to half of the tonnage of the smaller vessel.

Maneuver Roll =
Open-ended Roll
+ docking vessel's N-Space Pilot bonus
+ Difficulty Modifier: Light (+10)
+ Damage/Casualty Modifiers

DOCK WITH ANOTHER VESSEL/CONSTRUCT

Two consenting vessels may *dock with* one another at the end of the Movement and Maneuver Phase if the following criterion are met:

• Both vessels must occupy the same location (hex)
• Both vessels must be faced in the same direction
• Both vessels must have identical momentum.
• Both vessels must have expended zero MTs this Round.
• One vessel (only one may make the attempt) must make a successful Maneuver Roll at the end of the Movement and Maneuver Phase (modified by its N-space Pilot bonus and a Light (+10) Difficulty Modifier).

Since the presence of airlocks in a vessel's hull is assumed, after a successful docking maneuver, personnel may pass between the two ships. While docked, the vessels may not expend MTs, and may not engage MSA or Translight Drives. Vessels may "break" their dock at the start of any subsequent Movement/Maneuver Phase.

Maneuver Roll =
Open-ended Roll
+ N-Space Pilot bonus of one vessel
+ Difficulty Modifier: Routine (+10)
+ Damage/Casualty Modifiers

GRAPPLE-TO-BOARD ANOTHER VESSEL/CONSTRUCT

The rules for docking change somewhat radically when one of the participants is unwilling, which is often the case in battle. The attempt of one vessel to attach itself to an unwilling vessel (usually with the intention of blowing open an airlock and sending in combat soldiers), is called *"grappling-to-board"*. In this case the Maneuver Roll is made at the end of the Movement and Maneuver Phase, and the following criterion must be met:

- Both vessels must occupy the same location (hex)
- Both vessels must be facing in the same direction
- Both vessels must have identical momentum.
- Both vessels must have expended zero MTs this Round(the target vessel's MSA and Translight drive must also be inactive).
- The grappling vessel must make a successful Maneuver Roll at the end of the Movement and Maneuver Phase. The roll is modified by the Grappler's N-space Pilot bonus, a Hard (-10) Difficulty Modifier, and by +20 if the Grappler applies a Tractor Beam while the target does not.

If the grapple-to-board maneuver is successful, combat personnel from the grappling vessel may begin entering the other vessel on the next Round. This activity is dealt with in Section 14.0, Boarding Actions, and may (optionally) require a copy of **Space Master: The Role Playing Game**.

If the Grapple Maneuver is unsuccessful, there is no effect to either vessel.

Note: *If the grappling vessel has a Shuttle/Vehicle Bay large enough to accommodate the target and a Tractor Beam is being used by the grappling vessel, the target may be drawn into the bay as part of the grappling maneuver.*

Maneuver Roll =
Open-ended Roll
+ Grappler's N-Space Pilot bonus
+ 20 if Grappler uses a Tractor Beam and the target does not
+ Difficulty Modifier: Hard (-10)
+ Damage/Casualty Modifiers

RAM

Any vessel may attempt to ram another vessel or construct as its maneuver for the Round. The following criterion must first be met:

- The ramming vessel and its target must occupy the same Location (hex) at the end of the Movement and Maneuver Phase.
- The ramming vessel must make a successful Ram Maneuver Roll; adding the ramming vessel's Combat Pilot bonus, subtracting the target's Combat Pilot bonus, subtracting 5 for every MT expended by the target vessel this Round, and finally adding 20 if the target's Mass Category is Medium (+50 if it is Large, +100 if it is Super Large).

Note: *Ramming attempts are automatic if the target is completely immobile (i.e., expended no MTs in the Round and has zero momentum).*

Note: *If the target is willing to be rammed or has not expended MTs this Round, a Maneuver Roll is still required but the target's Combat Pilot bonus is not added.*

If a ramming attempt is unsuccessful, there is no effect to either vessel.

If a ram is successful (a roll of 101+), both the ramming vessel and the target receive a Projectile attack resolved on the *Projectile Attack Table* 19.1. The Maximum Result threshold is determined by the size of the smallest vessel:

Smallest Vessel	Maximum Result Threshold
Small	Mk. 30
Medium	Mk. 40
Large	Mk. 50
Super Large	Mk. 50 *

* If both vessels are Super Large, each vessel receives two attacks and each attack roll has an additional +100 modifier.

Modifiers to the Combat Rolls to be made against both vessels include: +10 for each MT expended by the ramming vessel in access of those expended by the target this round. +1 for each fraction of 1000 tons of the ramming vessel's mass.

If one of the vessels is destroyed due to a "ram" attack, the other vessel immediately receives an Exploding Vessel attack as detailed in the Damage rules (see Section 4.9)

Maneuver Roll =
Open-ended Roll
+ Rammer's Combat Pilot bonus
- target's Combat Pilot bonus
- 5 for every MT that target expended during the Round
+ 20 if target's Mass Category is Medium; +50 if Large; +100 if Super Large
+ Damage/Casualty Modifiers

ENTER HYPERSPACE

A starcraft with a functioning Translight Drive may enter Hyperspace during combat by making a successful Maneuver Roll when it would normally make its move during the Movement and Maneuver Phase. The roll is modified by the vessel's N-Space Pilot bonus and a Very Hard (-20) Difficulty Modifier if the vessel was fired upon last Round. This Difficulty Modifier rises to Extremely Hard (-30) if one or more torpedoes are pursuing the vessel.

If the maneuver is successful (a roll of 101+), the vessel is removed from the map and may not return; such a vessel is considered to have Disengaged. If the maneuver fails, the vessel may only expend half of its normal MTs this Round.

Maneuver Roll =
Open-ended Roll
+ vessel's N-Space Pilot bonus
+ Difficulty Modifier: Very Hard (-20) if fired upon last Round; Extremely Hard (-30) if pursued by one or more torpedoes; Medium (+0) otherwise
+ Damage/Casualty Modifiers

4.8

PROJECTILE AND ENERGY FIRE

The concepts of firing at opponents presented in the Basic Game are still applicable in the Standard Game, except where expanded and amended below. Players will note that the Standard Game introduces a much wider range of available weaponry, and expands those Cannon types up to their full Mk.50 size limitation. Also, a variety of Weapon Mounts and attendant Covered Arcs are introduced.

WEAPON MOUNTS

There are three basic Weapon Mount types in the Standard Game:

- the Fixed Mount
- the Flexible Mount
- the Turret Mount

As in the Basic Game, there may be multiple Firing Mechanisms in each Weapon Mount. Each Weapon Mount type has a different Covered Arc, within which a target may be fired at. These Covered Arcs are illustrated below.

As a unit rests on the map, the exact Covered Arc of its various weapons will be determined both by the vessel's facing, and the location of the Weapon Mount on the vessel. For instance, a fixed Mount placed on the rear of a vessel will generate its 60 degree Covered Arc extending from the aft of the vessel. Therefore, all Weapon Mounts will be classified as occupying one of 6 different locations on a starcraft. These are:

1) Forward
2) Front Quarter Right
3) Front Quarter Left
4) Rear Quarter Right
5) Rear Quarter Left
6) Aft

Example: *To the right are shown two sample Covered Arcs. "A" is the Covered Arc of a Flexible Mount located on the Rear Quarter Left. "B" is the Covered Arc of a Turret Mount located on the Front Quarter Right.*

Since the Standard Game is played in two dimensions, Turret Mounts on the top or bottom of a starcraft afford an all-around 360 degree Covered Arc.

In **Star Strike** it is assumed that the application of Attitude Thrusters will allow any starcraft to spin freely along its axis of travel. (**Note:** *Attitude Thrusters are inherent systems of any starcraft hull.*)

STANDARD GAME WEAPON MOUNTS AND COVERED ARCS

Weapon Mount location/orientation.
Vessel
Fixed Mount (60° Covered Arc)
60°

Flexible Mount (120° Covered Arc)
120°

Turret Mount (180° Covered Arc)
180°

Note: *If a Turret Mount is on the Top/ Bottom of the craft, the Covered Arc is an all-around 360°.*
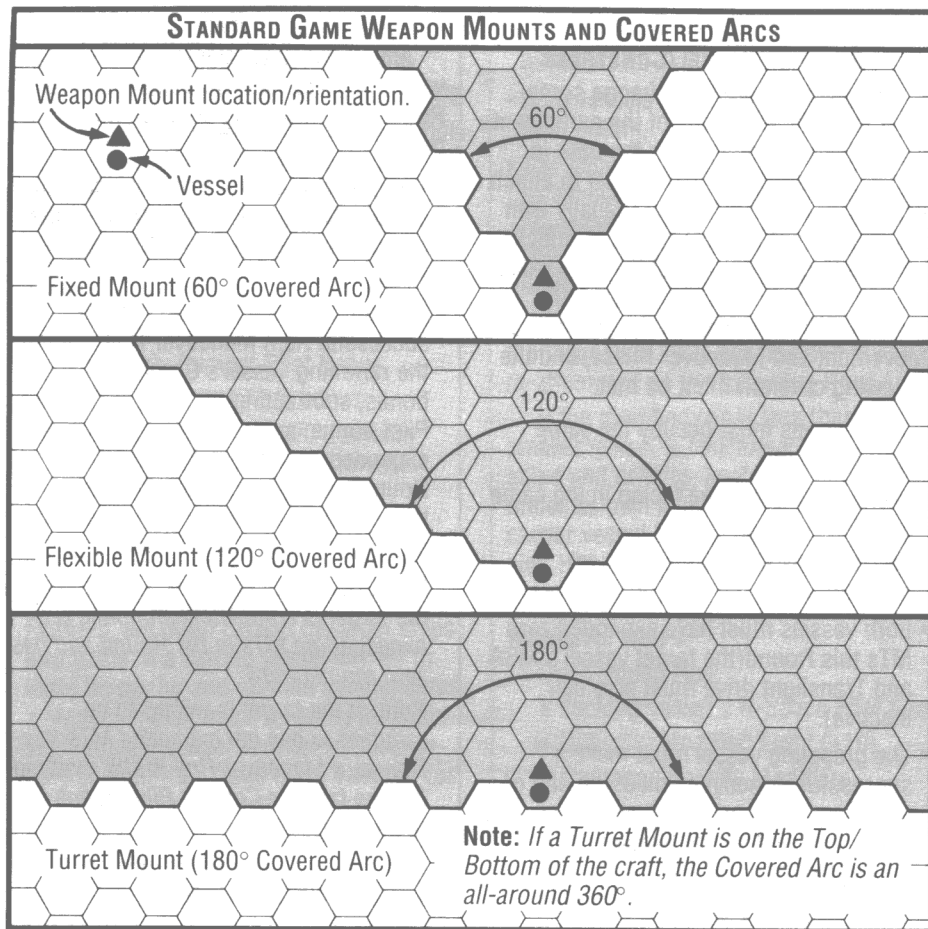
Therefore, at any time, a starcraft may be on one side or another, or even upside down (what is *up* in space anyway!). Since this is the case, a starcraft may, during a Fire Phase, indicate that it has flipped upside down to change the Covered Arcs of certain Weapon Mounts. Here are a list of restrictions applying to this tactic in the Standard Game:

COVERED ARCS
120°
A
180°
B

1) A Front Quarter Right may change to a Front Quarter Left and vice versa.

2) A Rear Quarter Right may change to a Rear Quarter Left and vice versa.

3) If a player is going to commit himself to a starcraft flip during a Fire Phase, he must do so at the beginning of that Phase. All Front Quarter and Rear Quarter Covered Arcs must switch with their opposites for the entire Fire Phase, essentially freezing the vessel's attitude for the Phase.

MULTIPLE FIRING MECHANISMS WITHIN A SINGLE WEAPON MOUNT

It will be quite common to find starcraft housing multiple Firing Mechanisms (**FMs**) in some or all of their Weapon Mounts. In the Basic Game, all Firing Mechanisms (usually cannons) on a Weapon Mount are assumed to "hit" and thus do Concussion Hit damage (see 2.9), while in the Standard Game a player must randomize how many of his FMs actually hit the target for for the purposes of determining Concussion Hit damage.

26
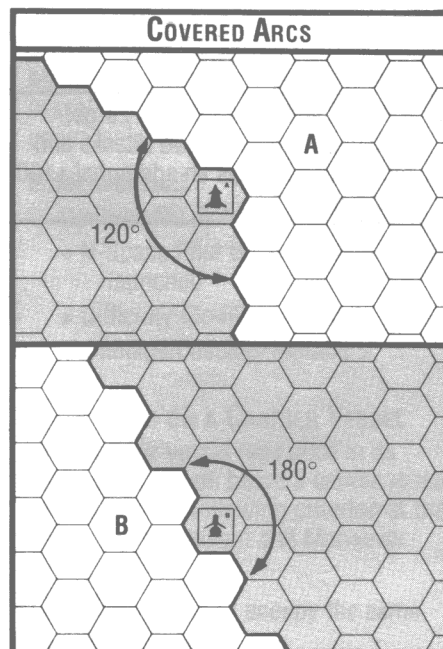
When the Weapon Mount's attack is made the resulting Concussion Hit damage number is multiplied by the number of FM discharges that actually "hit".

If an attacking Weapon Mount contains more than one Firing Mechanism (FM), the exact number of FMs that "hit" the target must be determined. You may roll on the *Multiple Firing Mechanism Chart* or Roll D10, divide by 10, and multiply by the number of FMs in the Weapon Mount (round off, with a minimum result of 1):

# of FMs that hit = 1 or

   (D10 roll ÷ 10) x (# of FMs on the mount) **whichever is greater**

Example: *A Night Hawk SMAC discharges its Blast Cannon Weapon Mount which houses 6 FMs. The Combat Roll indicates a "12A" result. Randomization shows that only 4 of the FMs "hit", so the total damage done is 48 (4 x 12) Hits and an "A" Critical Result.*

Attack Bonus: In the Standard Game there is now a bonus awarded to a firer's OB when attacking with multiple FMs in the same mount. This bonus is equal to +2 for every Firing Mechanism discharged from a multi-mechanism mount.

   Example: *A Turret Mount houses four Plasma Cannons. The multiple mechanism firing bonus is +8, which is added to the attacker's OB.*

IDENTIFYING FIRING MECHANISM, MOUNT, AND LOCATION

Every firing platform has to be identified by its type and location. This is done by stringing the information together.

   Example: *If three Mk.20 Laser Cannons are housed in a Flexible Mount on the right rear quarter of a starcraft, the entire platform is recognized as:*

   3 x Mk.20 Laser Flexible Rear Quarter Right.

Similarly, a mount of six Mk.10 Disruptor Cannons turreted on the nose of a vessel is identified as:

   6 x Mk.10 Disruptor Turret Forward.

RANGE

Projectile and Energy Cannons are available in sizes ranging from Mk.6 through Mk.50 inclusive. Consult the *Projectile/Energy Cannon Range Limits Chart* to determine the maximum ranges of different sized Cannons, and their Maximum Result thresholds at the various range increments.

MULTIPLE FIRING MECHANISMS CHART
(Result is # of Firing Mechanisms that "Hit")

Roll	# of Firing Mechanisms in the Weapon Mount									
	2	3	4	5	6	7	8	9	10	11+
1	1	1	1	1	1	1	1	1	1	# x .1 *
2	1	1	1	1	2	2	2	2	2	# x .2 *
3	1	1	2	2	2	3	3	3	3	# x .3 *
4	1	2	2	2	3	3	4	4	4	# x .4 *
5	1	2	2	3	3	4	4	5	5	# x .5 *
6	2	2	3	3	4	5	5	5	6	# x .6 *
7	2	2	3	4	4	5	5	6	7	# x .7 *
8	2	3	3	4	5	6	6	7	8	# x .8 *
9	2	3	4	5	5	6	7	8	9	# x .9 *
10	2	3	4	5	6	7	8	9	10	#

* Round off.

TARGETING RESTRICTIONS

In a given Round, high Mk.# Cannons may not fire at Small and Medium sized targets that have more than a certain number of MTs to expend during the immediately preceding Movement and Maneuver Phase; see the *Targeting Restrictions Chart*.

Note: *The higher Mk.# cannons cannot traverse fast enough to track and fire at the quicker/smaller vessels.*

Example: *Player A, with Mk.20 Cannons, wishes to fire at Player B's Medium Sized vessel. However, B's vessel has 11 MTs available and thus may not be hit with Mk.20 Cannons. Subsequent damage reduces B's vessel to 9 MTs, now B can be hit by Mk.20 Cannon.*

TARGETING RESTRICTIONS CHART

Proj. / Energy Cannon Mk.#	MT Limit for Small or Medium Sized Targets
6-10	No limit
11-20	10 or less MTs available
21-30	6 or less MTs available
31-40	3 or less MTs available
41-50	1 or less MTs available

Note: *Though a vessel may expend fewer MTs than are available to it during a Round, it is assumed that each vessel uses all of its unexpended MTs each Round performing evasive maneuvers not representable on the Map.*

PROJECTILE / ENERGY CANNON RANGE LIMITS

Energy Cannon Mk.#	Maximum Result (Mk.#) threshold based upon Range (range in hexes/km)							
	0-10	11-20	21-30	31-40	41-50	51-90	91-160	161-250
6-10	Mk.10	—	—	—	—	—	—	—
11-20	Mk.20	Mk.20	Mk.10	Mk.10	—	—	—	—
21-30	Mk.30	Mk.30	Mk.30	Mk.20	Mk.20	Mk.10	—	—
31-40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.30	Mk.20	Mk.10	—
41-50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.40	Mk.30	Mk.20

Projectile Cannon Mk.#	Maximum Result (Mk.#) threshold based upon Range (range in hexes/km)							
	0-10	11-20	21-30	31-40	41-50	51-90	91-160	161-250
6-10	Mk.10	—	—	—	—	—	—	—
11-20	Mk.20	Mk.20	Mk.20	Mk.20	—	—	—	—
21-30	Mk.30	Mk.30	Mk.30	Mk.30	Mk.30	Mk.30	—	—
31-40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	—
41-50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50

RANGE MODIFIERS

The Total Combat Roll (see Sections 2.8 and later in this section) involves subtracting a *Range Modifier*. In the Basic Game this was 5 per hex of range; in the Standard Game the Range Modifier per hex will depend upon the Cannon's Mk.#. Consult the following chart to determine the attack modifier for range effects.

PROJ / ENERGY CANNON RANGE MODIFIER CHART

Proj./ Energy Cannon Mk.#	Combat Roll Range Modifier per hex (km) to Target
6-10	5.0
11-20	2.0
21-30	1.0
31-40	0.5
41-50	0.2

Note: *If target is immobile **or** if the target is unaware of attacker and moving predictably (e.g., moving straight ahead, locked in an orbit, drifting, etc.), the Range Modifier is decreased by a factor of 10 (i.e., divide by 10).*

DEFLECTION

A new factor taken into account in the Standard Game is *deflection* (i.e., the Total Combat Roll involves an added Deflection Modifier). The *Deflection Modifier* is based upon the relative angle of firing between attacker and target which affects a starcraft Projectile and/or Energy Cannon Gunner's chances to hit. The use of deflection rules requires that the players become familiar with Deflection Arcs.

DEFLECTION MODIFIER CHART

Target is in this Deflection Arc of the Attacker	Attacker is in this Deflection Arc of the Target				
	Forward	Front Quarter	Rear Quarter	Aft	Line Astern
Forward	0	**	0	+10	+20
Front Quarter	**	*	+10	0	0
Rear Quarter	0	+10	*	0	0
Aft	+10	0	*	0	N/A
Line Astern	+10	0	*	0	+10

* minus (Target's Momentum x 2)   ** minus (Target's Momentum x 5)

To determine the Deflection Modifier for an attack, use the Deflection Arcs diagram and find:

- The arc occupied by the target relative to the attacker
- The arc occupied by the attacker relative to the target

Apply this information to the *Deflection Modifiers Chart* to find the Deflection Modifier. Calculations based upon the target's momentum refer to the target's Final Momentum after the immediately preceding Movement and Maneuver Phase.

GUNNERS

In the Basic Game the pilot fires his vessel's weapons. In the Standard Game, the Gunner for a given weapon system is not always the Pilot. During a given Round each crew member may discharge the Firing Mechanisms (FMs) of one and only one Weapon Mount. Thus, starcraft with multiple Weapon Mounts will often have extra crew members (Gunners).

- When a Gunner fires the FMs of a Weapon Mount, use either his Projectile Gunner bonus (for Auto Cannons), or his Heavy Energy Projector bonus (for Energy Weapons).
- Do not use the Pilot's firing bonuses unless the Pilot is in fact the one who is discharging a particular Weapon Mount.
- A Pilot may only fire a Forward located Fixed Mount in combat.

CENTRAL FIRE CONTROL

If a Gunner is unavailable to discharge a Weapon Mount, that mount may still be used for an attack. When it is his turn to fire, a player may declare that a mount (or mounts) is being controlled by the vessel's Computer. Such mounts make Combat Rolls normally; but:

- Do **not** add a skill bonus
- Do **not** add the HUD bonus
- Do **not** add the OB portion of the Combat Pilot OB/DB split
- Do add a bonus equivalent to the Mk.# of the Computer divided by 10

AUTO CANNONS

Auto Cannons do **not** have an "unlimited" supply of discharges, as is the case for Energy Weapons. All Auto Cannon listings include a Magazine rating (i.e., the number of ammunition units) which indicates the total of the number of times that they may fire (i.e., the total number of Combat Rounds during which the weapon may fire).

Every time an Auto Cannon mount is discharged, mark off one unit worth of ammunition. When no ammunition units remain in a Magazine, that Auto Cannon Mount may no longer fire.

Auto Cannon Magazines may not be reloaded within the context of a single scenario, but may be refilled between games. See Section 9.11 for the cost of Auto Cannon ammunition when playing in a campaign setting.

DEFLECTION ARCS

Note: *A vessel's Location is a seperate Deflection Arc. Fire within a vessel's Location (i.e., a Range 0 attack), has a Deflection Modifier of zero (+0).*

OFFENSIVE BONUS

Below are listed the factors which are added together to derive the OB for any given Weapon Mount discharge:

1) The Gunner's (or Pilot's, if firing) Heavy Energy Projector **or** Projectile Gunnery bonus. * †
2) The Mk.# of the Firing Mechanism(s).
3) The multiple Firing Mechanism attack bonus (+2 per Cannon).
4) The HUD bonus. †
5) Computer's Predict Program bonus. §
6) The OB portion of the Combat Pilot OB/DB split. § ‡

* — *The Heavy Energy Projector bonus is used when firing Energy Cannon, while the Projectile Gunnery bonus is used when firing Auto Cannons.*

† — *Only if manned by a Pilot or Gunner (as appropriate)*

§ — *May be restricted by the vessel's present Maneuvering Thrust value (see Section 4.1).*

‡ — *Only if it is the Pilot who is firing the Weapon Mount (which must be a Fixed Mount in a Forward location).*

DEFENSIVE BONUS

Add together the following factors to determine a vessel's DB when fired upon:

1) Armor Quality bonus.
2) Armor Belt bonus.
3) EW bonus.
4) Screen bonus.
5) Computer's Evade Program bonus. §
6) The DB portion of the Combat Pilot OB/DB split for the Round. §

§ — *May be restricted by the vessel's present Maneuvering Thrust value (see Section 4.1).*

THE TOTAL COMBAT ROLL

Similar to the Basic Game Combat Roll, the Standard Game Total Combat Roll incorporates a few more factors.

For each Weapon Mount that discharges: roll an open-ended (high) 1D100, add the firer's OB, subtract the target's DB, subtract the Range Modifier, add the Deflection Modifier, and add any applicable Damage/Casualty Modifiers.

Total Combat Roll   =
A Combat Roll
+ Firer's Total OB
- Target's Total DB
- Range Modifier
+ Deflection Modifier
+ Damage/Casualty Modifiers

Cross-reference the modified roll with the defender's CAT on the appropriate attack table, observing the weapon's Maximum Result threshold. Apply any resulting damage immediately.

Note: *In the Standard Game, a "Failure" result affects all Cannons in the Weapon Mount.*

GUNNERY DUELS

The Basic Game Gunnery Duel (see Section 2.8) is slightly modified in the Standard Game:

• To declare a Gunnery Duel, the lower Initiative ranked vessel must be within 50 Initiative points of the higher ranked vessel.

• Only Gunners (including Pilots firing a Fixed Forward Weapon Mount) on the lower ranked vessel that can fire back at the higher ranked vessel may initiate a Gunnery Duel and, if they win, fire. All other gunners aboard the lower ranked vessel must wait for their normal opportunity to fire (barring additional Gunnery Duels, of course).

INITIATIVE AND MULTIPLE MOUNT VESSELS

The order of firing, as determined by the player's Initiative Ranking, is the same in the Standard Game as it was in the Basic Game. However, many starcraft will have several Weapon Mounts which are capable of firing at opponents during the same Round — these will not necessarily all be discharged at once. The guidelines for discharging multiple Weapon Mounts from the same vessel follow:

a) Proceed through the Initiative Ranking from the highest to the lowest value.

b) When a vessel takes its turn to fire, it may fire one (1) Projectile or Energy Weapon Mount of its choice (alternatively it may Salvo Fire one group of Weapon Mounts, see below).

c) Once an attack is resolved, proceed to the next vessel down on the Initiative Ranking. If the vessel has already fired all of its Weapon Mounts, just proceed to the next one.

d) When the end of the Initiative Ranking is reached, just start over at the top of the Initiative Ranking and proceed through it again.

e) Repeat this procedure until all vessels have fired all of the Weapon Mounts desired.

Example: *Four starcraft are engaged in combat: vessels A and B against vessels C and D. After movement, each vessel has the following number of Projectile or Energy Weapon Mounts which can fire: A-2, B-1, C-1, D-5. The Initiative Ranking indicates that the vessels will fire in this order: C, B, D, A. Baring Salvo Fire and the incapacitation of vessels, weapon discharges will proceed as follows:*

C fires its only mount

B fires its only mount

D fires one mount of its choice

A fires one of its two mounts

One increment of the fire procedure is now completed, but Weapon Mounts remain to be discharged:

C and B are passed over because they have already fired all of their mounts

D makes an attack with one of its four remaining mounts

A then completes its Fire Phase by discharging its second eligible mount

D now has three mounts remaining to be fired and so discharges them in any desired order

SALVO FIRE

If a starcraft has several Weapon Mounts with similar Cannon types and sizes, they may all be fired simultaneously against a single target. This procedure is called Salvo Fire.

During the firing procedure, a vessel may declare Salvo Fire against one target and make one attack roll for several Weapon Mounts (and so overcome the normal requirement of only firing one mount at a time).

To fire a salvo, the following requirements must be met:

• All FMs must be Cannons of the same type — Auto, Laser, Blast, Disruptor, Ion, or Plasma.

• All FMs must have the same Maximum Damage Threshold — Mk.10, Mk.20, Mk.30, Mk.40, or Mk.50.

• All Weapon Mounts containing the FMs must be able to fire at the target, taking into consideration the normal firing arcs, ranges, and other parameters.

The Combat Roll for Salvo Fire is calculated in the following manner:

Total Combat Roll =
A Combat Roll
+ Firer's Total OB: average Gunner bonuses for all the mounts firing
- Target's Total DB
+ 2 bonus for each FM involved in the attack
- Range Modifier
+ Deflection Modifier
+ Damage/Casualty Modifiers

Salvo Fire *Damage* is handled somewhat abstractly. After obtaining the combat result on the appropriate attack table, apply damage as follows:

# of Concussion Hits =
Concussion Hit result from the attack x (the number of FMs firing ÷ 2)

# of Criticals =
# of Weapon Mounts involved in the attack

If the unmodified Combat Roll indicates a weapon failure, the attack has no result, regardless of modifiers, and 10% of the FMs involved are Knocked Out for the remainder of the scenario.

The Salvo Fire procedure **must** be used by all eligible FMs when individual Gunners are unavailable to man the Weapon Mounts (i.e., when Central Fire Control is used for the attack).

4.9 ■■■■■■
DAMAGE

The Basic Game damage rules (Section 2.9) apply to the Standard Game, except that references to SMACs now cover the broad spectrum of vessels available. Some of the Basic Game rules have been expanded or amended below.

The Standard Game expands players' weapon selections, thus broadening the number of attack tables available for use. All of the *Star Strike* attack tables may be found in Section 19.0, located in the self-cover insert book found in the game box.

When using the attack tables to determine the damage resulting from a favorable Combat Roll, be sure to observe the Maximum Result (Mk.#) thresholds; do **not** apply damage beyond the levels appropriate for the weapon size as modified by extended ranges (see Section 4.8).

If a Failure results, all FMs in the mount are affected (barring the use of Salvo Fire).

EXPLODING VESSEL ATTACK CHART			
Size of Exploding Vessel	EFFECTED OF BLAST ON OTHER VESSELS		
	Ramming	Same Hex (Location)	Adjacent Hex (Location)
Starcraft of < 500 tons	Mk.10 Explosive WH	None	None
Other Small Starcraft	Mk.30 Explosive WH	None	None
Medium Starcraft	Mk.50 Explosive WH	Mk.10 Explosive WH	None
Large Starcraft	1st Blast Rad Nuclear WH	2nd Blast Rad Nuclear WH	Mk.50 Explosive WH
Super Large Starcraft	1st Blast Rad Nuclear WH	1st Blast Rad Nuclear WH	2nd Blast Rad Nuclear WH

CONCUSSION HIT DAMAGE MODIFIERS

At certain subjective levels of punishment, starcraft performance becomes degraded. This is reflected by a modifier added to all Combat and Maneuver Rolls made by a vessel that has taken Concussion Hit damage. Consult the *Damage Modifiers Chart* to determine the severity of these modifiers.

DAMAGE MODIFIERS CHART	
Concussion Hit Damage as % of Hit Total	Combat and Maneuver Roll Modifier *
74-100%	0
51-75%	-10
26-50%	-20
1-25%	-30
* Non-cumulative	

DISABLING VESSELS

As in the Basic Game, a vessel is *disabled* when its Concussion Hit damage exceeds its Hit Total but does not exceed twice its Hit Total.

A disabled vessel has all of its major systems knocked out. Thus it immediately begins drifting helplessly, and is unable to maneuver, fire, communicate, or otherwise take any action.

Crewmembers, if still alive and functioning, may stay aboard the vessel or jettison in Life Pods.

Example: *If a vessel has a Hit Total of 105, it is considered to be Disabled when its Concussion Hit total is between 106 and 210 inclusive.*

DESTROYING VESSELS

As in the Basic Game, a vessel is *Destroyed* either by a specific Critical result **or** when its Concussion Hit damage exceeds twice its Hit Total.

Destroyed vessels are removed from the map immediately after the "Exploding Vessel" procedure is resolved.

Example: *Thus, barring a "craft destroyed" critical result, a vessel that normally takes 105 Hits is destroyed when its accumulated Hit total exceeds 210.*

EXPLODING VESSELS

All destroyed vessels "explode", possibly inflicting damage on nearby vessels and constructs. The effect of each exploding vessel is resolved immediately after the attack that destroyed it.

Above is a chart listing the possible sizes of destroyed vessels, the limitation on what other vessels may be effected by their destruction and the form of the attack made on other vessels.

Note: *"Same Hex (Location)" refers to a vessel occupying the same hex as the Exploding Vessel. "Adjacent Hex (Location)" refers to any hex which boarders on the hex containing the Exploding Vessel.*

Exploding Vessel attacks are resolved by Total Combat Rolls calculated as followed:

Total Combat Roll =
A Combat Roll
+ The Exploding Vessel's Reactor Rating divided by 5
+ The Number of Missile Magazines on the Exploding Vessel still containing Missile(s)
+ The Number of Torpedoes still held on Payload Pallets on the Exploding Vessel
- The target vessel's normal DB **without** the EW bonus and the Evade Program bonus

4.10

INTERPRETING CRITICAL RESULTS

Most critical results are self-explanatory, but a few notes on system mechanics, and the effect of critical damage in the campaign setting are in order.

OUT OF CONTROL

For vessels capable of expending MTs, the Standard Game Out of Control rules are the same as those presented in the Basic Game (see Section 2.10, note that for these purposes, momentum is ignored). However, for vessels with no Maneuvering Thrust capability, assume that an Out of Control result affects the vessel's telemetry, Attitude Thrusters and Fire Control, setting it spinning around its axis unpredictably. Such a vessel may neither discharge weapons nor take any other actions until control is regained.

A Vessel pilot may attempt to regain control of his vessel during any Orientation Phase after the vessel goes "Out of Control". To do this, make an open-ended Roll and add the vessel pilot's N-space Pilot bonus. If the result is over 100, the vessel is no longer "Out of Control" and may thereafter operate normally. If the result is 100 or less, the vessel remains "Out of Control".

STUNNED CREWMEMBERS

If a vessel's crew is stunned, that vessel may not expend MTs, it will drift, it may not discharge any weapons, it may not perform Orientation Phase activities, and any attempt at performing appropriate maneuvers are made with a -50 Stunned Modifier.

CREW CASUALTIES

For Medium and larger starcraft, crew casualties are stated as a percentage of the total crew. Each player must keep a running total of the cumulative casualty percentage for each of his vessels (see Starcraft Display).

• All rolls made for a vessel are modified by -5 per 10% casualties (e.g., Combat rolls, Maneuver Rolls, Orientation Rolls, etc.).

• When the percentage reaches 100%, the starcraft must act as though it were Disabled, and is Disabled for Victory Condition purposes.

• If *Space Master: The Role Playing Game* is being used, and Player Characters are aboard a vessel that takes casualties, a roll must be made for each Player Character. If the roll is less than the percentage casualty, the Player Character is injured and receives a "D" Impact critical (apply the damage using normal *Space Master* system rules).

Note: *The crew casualty rules assume that Medium and larger ships have crewmembers that can perform multiple tasks. If the players wish to, they can randomly determine which crewmembers are affected by crew casualties and thus modify bonuses for Combat Rolls and Pilot maneuvers accordingly.*

CREWMEMBER CRITICAL HITS

Occasionally on the starcraft Critical Result Tables, a player is directed to roll a specific critical against a certain crewmember. Use the Crewmember Critical Tables of Section 18.0 to resolve these. Apply any hits delivered to the specific crewmember's Hit Total.

When a crewmember's Hit Total drops below 0, he is unconscious and incapable of performing actions for the duration of the scenario.

KNOCKED OUT

When a system is knocked out, it may not function at all for the balance of the scenario. In a campaign setting, treat knocked out systems as Extremely Severely Damaged for repair purposes. Auxiliary units may be engaged to take over the functions of a knocked out system.

BONUS REDUCTIONS

When a system receives Damage that reduces its bonus, the reduction will be in effect for the duration of the scenario unless an Auxiliary Unit is available and the player wishes to switch over to it. When the bonus for a system reaches 0, the system is "knocked out" (see above).

SCREEN REDUCTIONS

Bonus reductions to Screens are often unaccompanied by a Damage severity note. Such bonus reductions are reinstated after the scenario without repairs being necessary; unless:

• Damage severity is stated by the critical result **or**

• the Screen bonus drops to 0; which indicates that the Screen Generator has been knocked out

OTHER EFFECT OF DAMAGE

Unless otherwise stated, if a critical result to a system indicates some level of Damage and does not give a bonus value reduction, the system is completely and immediately inoperable until the Damage is repaired.

ADDITIONAL HITS

Criticals are often accompanied with a "+X Hits" listing. These additional Hits are applied to the vessel's cumulative Concussion Hit total and are not adjusted for multiple Firing Mechanism strikes (see Section 4.8).

INTERIOR FIRES

Some criticals call for a vessel to take "Hits per Round". These are caused by internal fires and other insidious damage. Interior Fires may be extinguished during the Final Orientation Phase using a vessel's inherent Damage Control system as explained in Section 4.11.

REPAIRING SYSTEM DAMAGE

Unless otherwise stated, the successful completion of repairs to a system eliminates the effect of Damage.

Example: *If Light Damage to EW reduces its bonus by 20, repairing the Light Damage brings the EW back up to its normal bonus; effectively removing the 20 bonus reduction.*

If multiple instances of Damage occur, each must be repaired separately, and with each successful completion, appropriate lost bonuses are restored.

Damage repair may entail the expenditure of resources in the form of CIP's (Cost In Parts), often stored in starcraft Workshops. See the *Repair Damage/Malfunction Table* 11.4. Also se *Damage Control* in Section 4.11.

CRITICALS FOR LARGE AND SUPER LARGE VESSELS

Due to their inherent size and structural integrity, Large and Super Large vessels are immune to some critical strikes. Large target vessels ignore "A" severity criticals. Super Large vessels ignore "A", "B" and "C" severity criticals. When a Large or Super Large target takes a critical which would affect it, roll the result on the appropriate table (20.5 or 20.6). Note that these critical rolls are Open-ended through the high end of the range.

4.11

FINAL ORIENTATION

In the Basic Game, the only Final Orientation activity is regaining control of an Out of Control vessel; in the the Standard Game a number of additional activities are allowed. Each Orientation Phase, a vessel may perform one of these activities for every 5 control points (round off) required by the vessel.

The following Orientation Phase options are expanded upon in the explanations below.

1) Regain control of an Out of Control vessel

2) Repair Routine or Light Damage/ Malfunction with automatic Damage Control system

3) Extinguish an internal fire with Damage Control system

4) Detect an unrevealed foe with Sensors and EW

5) Use Sensors to gain information

6) Reorient Screens

7) Receive (process) and/or transmit one Microfreq communication

8) Self destruct

REGAIN CONTROL OF AN OUT OF CONTROL VESSEL

Any vessel that is Out of Control at the start of a Final Orientation Phase may attempt to regain control. To do this make an Open-ended Roll and add the vessel pilot's N-space Pilot bonus. If the result is over 100 (101+), the pilot has regained control of the vessel, and it may thereafter operate normally. If the modified roll is 100 or less, the vessel remains Out of Control.

Modified Roll =
Open-ended Roll
+ vessel's N-Space Pilot bonus
+ Damage/Casualty Modifiers

USE DAMAGE CONTROL
Repair Routine or Light Damage/Malfunction

One of the two functions of Damage Control is Damage/Malfunction repair; the other is interior flame control. A starcraft's automatic Damage Repair capability is restricted in that it may only handle Routine or Light Damage or Malfunctions.

To successfully effect an automatic Routine or Light severity Repair, make an Open-ended Roll, then add the vessel's N-space Pilot bonus and a Difficulty Modifier (+30 for Routine, +10 for Light). If the modified roll is over 100 (101+), the damage or Malfunction has been repaired, cancelling any ill effects resulting from it. Only one Routine or Light Damage Malfunction may be repaired in this manner at a time.

Modified Roll =
Open-ended Roll
+ vessel's N-Space Pilot bonus
+ Difficulty Modifier: +30 for Routine, +10 for Light
+ Damage/Casualty Modifiers

USE DAMAGE CONTROL
Extinguish Interior Fire

The other function of a vessel's inherent Damage Control system is the hampering of internal flames which deliver "Hits per Round" to a vessel due to a critical hit result. To successfully retard an interior fire, make an Open-ended Roll and add the vessel's N-space Pilot bonus. The reduction in severity of the fire is dependant upon this modified roll. Consult the following chart to determine how many Hits per Round of interior fire damage are relieved each time this Orientation Phase activity is chosen:

Modified Roll =
Open-ended Roll
+ vessel's N-Space Pilot bonus
+ Damage/Casualty Modifiers

INTERIOR FLAME CONTROL CHART

Flame Control Modified Roll	Reduction in Hits per Round caused by Interior Fire
01-100	-1 Hit/rnd
101-120	-2 Hits/rnd
121-140	-3 Hits/rnd
141-160	-4 Hits/rnd
161-180	-5 Hits/rnd
181-200	-7 Hits/rnd
201-250	-10 Hits/rnd
251+	-20 Hits/rnd

Example: *The Meridian Queen, a 4000 ton exploration vessel has been jumped by pirates. In the ensuing combat, the Queen suffers several critical hits which produce 25 Hits per Round of interior fire. On a Final Orientation Phase, the Meridian Queen's player opts for Flame Control and rolls a modified 142, reducing the Hits per Round by 4. The Queen is now taking 21 Hits per Round.*

DETECT AN UNREVEALED FOE

Some scenarios may stipulate that certain combatants enter the game "Cloaked" due to a special device or exceptional Electronic Warfare capability and operators. When this is the case, opponents must successfully detect a cloaked vessel before it may be fired upon by **any** weapon system. A vessel may attempt to detect one cloaked vessel for every +5 bonus of its Sensor value (e.g., a vessel with a +20 Sensor bonus could attempt to detect up to 4 cloaked vessels per Final Orientation Phase)

To detect each unrevealed foe, make a Modified Roll as indicated below.

If the Modified Roll is over 100 (101+), the cloaked vessel is revealed to the entire detecting Side of a scenario for the duration of the game. If the modified roll is 100 or less, the foe remains cloaked.

Modified Roll =
Open-ended Roll
+ detecting vessel's Sensor bonus
+ detecting vessel's EW bonus
+ 5 for each MT expended by the cloaked vessel this Round
+ 5 for each Weapon Mount discharged by the cloaked vessel this Round
- the cloaked vessel's EW bonus
+ Damage/Casualty Modifiers
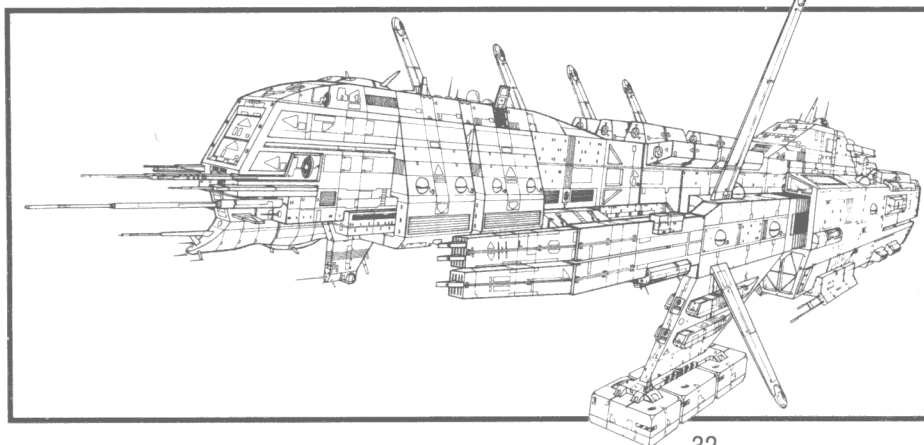
Use Sensors

If an opponent's vessel is uncloaked, a player may use his Sensor systems to discover specific information about the foe. This Final Orientation Phase activity should only be allowed during *refereed* or "*double blind*" games where opposing players are not allowed to freely examine their opponent's Starcraft Displays.

Modified Roll =

Open-ended Roll

+ scanning vessel's Sensor bonus

- the target vessel's EW bonus

+ Damage/Casualty Modifiers

If the modified roll is over 100 (i.e., 101+), roll 1D10 and consult the following chart:

Roll	Sensor Information Gained
1	The number of foe's crew, and their biological type.
2	Foe's Reactor Rating.
3	The number of foe's Energy Weapon Mounts.
4	The number, type and Mk.# of foe's Firing Mechanisms.
5	The number of foe's Missile Launchers.
6	Foe's Drive Ratings.
7	The number and type of foe's Auxiliary Systems.
8	Foe's structural info: CAT, Armor Quality, Armor Belt.
9	Foe's Combat Program bonuses.
10	You may spend 1 minute examining foe's Starcraft Display.

In a *Space Master: The Role Playing Game* campaign the preceeding chart is not used. Instead, Player Characters can take this opportunity to utilize their Sensor Analysis skill to determine certain things about their opponents; such as power output, weapon system nomenclature, life forms, and so on. The particulars of Sensor Analysis and the amount of information gathered are left to the discretion of the GM.

Reorient Screens

Normally, a vessel's Deflector Screens spread a set Screen bonus over the entire vessel. However, the Screen setting may be changed so that it protects one portion of the vessel with a greater Screen strength while leaving a deficiency over the other areas.

Specifically, a Screen bonus may be doubled in one of three areas, while the bonus must drop to 0 in the other two areas. The three Screen areas are Forward, Aft and Sides (in the Advanced Game this last area is expanded to Sides/Top/Bottom).

SCREEN ORIENTATION AREAS

Forward

Sides · Sides

Aft
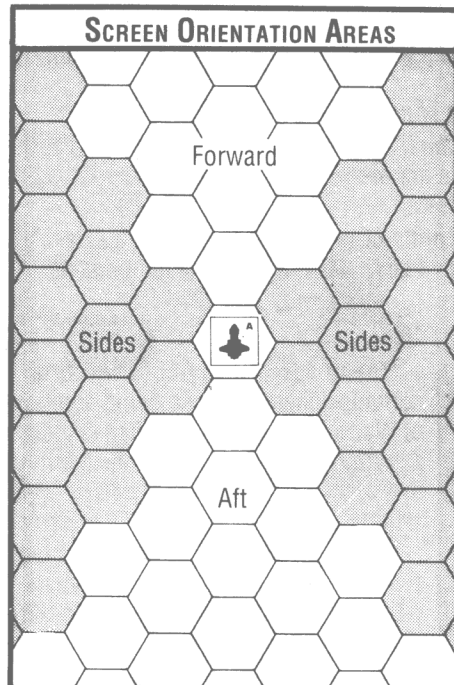
When Screens are reoriented, they must remain in their set configuration until changed again during another Final Orientation Phase.

Example: *Karin Baskey, the famed SMAC Fighter pilot is flying her Fire Brand into combat. The Fire Brand has a standard +10 Screen bonus which offers even, all-around protection. Her opponent is a MMAC Gunboat with several turreted Firing Mechanisms, so whichever direction she approaches from she can be assured of receiving defensive fire. The Round before she closes on the target, Karin decides to take "Reorient Screens" as her Final Orientation Phase activity and declares her deflectors to now be "Double Front!" (Karin's weapons fire forward, so she figures her front will be towards her opponent next Fire Phase.) Karin's Screen bonus is now +20 to attacks made against her Forward area, but her Sides and Aft areas are considered to be void of Screens for all purposes. Karin may not change her Screen configuration until another Final Orientation Phase.*

Microfrequency Communication

In a multi-player game, it may be stipulated that players may not communicate unless they are using their Microfreq Rigs. Such communications should be made verbally and should be limited to 10 seconds for each such communication (i.e., one such communication per Orientation Phase).

Self Destruct

In desperate situations, players may wish to Self Destruct their vessels. This requires a modified roll:

Modified Roll =

Open-ended Roll

+ vessel's N-Space Pilot bonus

+ a Hard (-10) Difficulty Modifier

+ Damage/Casualty Modifiers

If successful (101+), the vessel will explode in six Rounds. See the Exploding Vessels rules (Section 4.9) to resolve any damage against nearby constructs when the vessel does explode. A Self Destruct sequence can only be stopped (at any time) by its instigating crew or a successful Boarding Action by an opponent (see Section 14.0).

5.0

STANDARD GAME SCENARIOS

The scenarios supplied in this section take place within a consistent milieu. Based upon small military engagements occurring during the Replicant Rebellion crisis of decade Imp.470, each can be played separately, or in succession to form a short campaign.

The setting is the Imperial territory know as Quadrant Hydrax during an uprising of Replicant slaves. The scenarios follow the exploits of two opposing combat units during the campaign: one, a crack squadron of Legona Hydraxi Millennia Warriors fighting for the Empire, while the other is a rag-tag collection of Replicants desperately striving for freedom and recognition.

SCENARIO SYSTEM NOTES

When "Acquired Momentum" is referred to in the scenario Set Up section, treat it as the Final Momentum which has been accrued just before the scenario begins (i.e., on Round 0). Therefore, the Drift on Round 1 will be half of this Acquired Momentum.

THE MAP

For each scenario, place the six **Star Strike** Map sections together, as shown at the bottom of this page. The different grey areas are marked with letters corresponding to Set Up areas defined in each scenario.

If, during the course of a game, a vessel drifts or moves off of a Map edge, take a Map section that is not being used and place it so that the vessel may continue its movement.

5.1

MILLENNIA WARRIORS OVER IZMION

The first massacres of Replicants participating in illegal forums on the moon Izmion (Gotama four one) had taken place. Incensed, tri-alpha Replicant underground leaders undertook negotiations with Minor Clan arms dealers to build up a starcraft arsenal. After several shipments had been received, the tri-alphas could finally commit themselves to a show of force. Their target would be the standing Millennia Warrior unit of Izmion's Legona Hydraxi; dubbed the "*Frothing Berserkers*".

The first Replicant SMAC squadron was commissioned in secret, being composed of Warrior Replicants who had avoided the extermination round-ups of the previous five years. They called themselves "*Bright Victory*".

Although their mission carried a high element risk, the *Bright Victory* squadron, stealing away from their concealed base planetside, sought to catch an orbital *Frothing Berserker* patrol unaware, and force a decision.

This scenario covers a small portion of the battle which ensued over the dark little moon, Izmion.

FORCES

Side A — Replicants of the *Bright Victory* squadron flying surplus SMACs.
- 2 x Fire Brand SMAC
  Loads: 1xMk.10 Standard Expl Torp
- 2 x Ferret SMAC

Special Note: *The Bright Victory SMACs suffer from inferior Computer Programs. Fire Brand (Tactics:30, Predict:30, Evade:30). Ferret (Tactics:40, Predict:30, Evade:20).*

Side B — *Frothing Berserker* Millennia Warriors flying SMACs with the Legona Hydraxi.
- 2 x Spirit Rider SMAC
  Loads: 2xMk.10 Express Expl Torp

SET UP

Side A — Start in Area A
........................*Acquired Momentum:* 20
Side B — Start in Area C, facing direction "3" ......*Acquired Momentum:* 4

VICTORY CONDITIONS

Side A — Have the last non-disabled SMAC on the Map.

Side B — Have the last non-disabled SMAC on the Map.

5.2

BREAKOUT FROM DYUSHAMBE V

By means of shear tenacity and a good dose of covert Inner House aid, the Replicant forces of Izmion had gained a short period of space supremacy over the moon. Before larger units of the Legona Hydraxi, and possibly an Imperial squadron, could lay siege to Izmion, deep space transports were sent to Dyushambe system.

Dyushambe V, Kuznetsk, was the Prison World of Imperial Quadrant Hydrax, and harbored not only a strong force of Replicants, but also numerous interned dissident military leaders. If the Replicant Rebellion was to succeed, this resource of men and minds would need to be liberated.

In a daring planetfall, an escorted Replicant transport put down on Kuznetsk and brought on scores of prisoners; but the Prison Guardian network, reinforced by lead elements of the *Frothing Berserkers* caught the escaping force as they were leaving planetary orbit.

The Replicants would have made good their escape if it were not for the failure of the transport's Sublight Drive MSA capability...

THE MAP
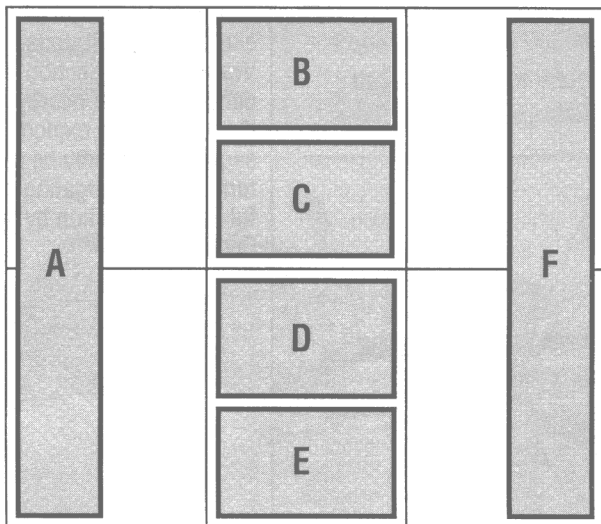
FORCES

Side A — A mixed Replicant force, including members of *Bright Victory* brought in by Carrier, escorting a transport to safe Hypershunting range.

- 1 x Marias Spree Transport
- 2 x Glaive TMAC
  Loads: 5xMk.10 Standard Expl Torps
  20xMk.10 Expl Missiles
- 2 x Fire Brand SMAC
  Loads: 1xMk.10 Standard Expl Torp

Special Notes: *The SMACs suffer from inferior Computer Programs and maintenance. Fire Brand (Tactics:45, Predict:45, Evade:45), and eliminate the Aux RIF. The TMACs suffer from inferior maintenance; eliminate one random Auxiliary Unit from each. The Transport may not Disengage.*

Side B — A Legona Hydraxi Prison Guardian gunboat and lead units of the Millennia Warrior *Frothing Berserkers*.

- 1 x Epping MMAC
  Load: 60xMk.10 Expl Missiles
- 2 x Night Hawk SMAC

SET UP

Side A — Start in Area A.
........................*Acquired Momentum:* 4
Side B — Start in Area B.
........................*Acquired Momentum:* 10

VICTORY CONDITIONS

Side A — The transport must be neither Disabled nor Destroyed, and still have a functioning Translight Drive by the end of Round 10.

Side B — By the end of Round 10, either Disable or Destroy the transport **OR** damage the transport's Translight Drive.

5.3 ▐███████
ENGAGEMENT AT MU LAMBDA I

The first major Replicant base was located on the Omega World of Mu Lambda I. There they attempted to draw together their various and scattered forces. There was dissension among the ranks however. Some Replicant tri-alphas sought a quick cease fire with the Legona Hydraxi, thinking that a unilateral peace offer would bring the concessions the Replicants were looking for. Other rebel leaders wanted an alliance with an Inner House, or a Minor Clan coalition. What ever the reason, a Replicant faction went over to the Legona Hydraxi and revealed the Mu Lambda base.

A recon force was sent to the Omega World to test the Replicant strength and defensive coordination network. *Frothing Berserker* Millennia Warriors, now experienced in fighting the tenacious freedom fighters, were linked with elements of the traitorous Replicant faction.

Over the planet they engaged interceptors of the newly reformed *Bright Victory*.

FORCES

Side A — *Bright Victory* interceptors.

- 2 x Salamander TMAC
  Loads: 1xMk.20 Armored Expl Torp
  4xMk.10 Standard Expl Torps
- 2 x Intruder SMAC
  Loads: 1xMk.20 Armored Expl Torp
- 1 x Ferret SMAC

Side B — A Replicant turncoat recon vessel supported by *Frothing Berserkers*.

- 1 x Geenen Frigate
  Load: 10xMk.50 Recon Pods
  20xMk.10 Express Expl Torps
  200xMk.10 Expl Missiles
- 2 x Night Hawk SMAC

SET UP

Side A — Start in Area A.
........................*Acquired Momentum:* 12
Side B — Start in Area F.
........................*Acquired Momentum:* 8

VICTORY CONDITIONS

This scenario lasts 10 Rounds. Adjusted Monetary Victory Points (Section 6.5) are in effect, with totals calculated after the game is over. The Side with the highest total wins.

5.4 ▐███████
SCIROCCO DOGFIGHT

Siloam Chi Kappa IV, the planet Scirocco, was the Homeworld of Minor Clan Coristan. Known to hate the Replicants, and supply the Legona Hydraxi with men and starcraft, Coristan made an excellent target for a demonstrative raid. In what would be the last engagement between *Bright Victory* and the recently transferred *Frothing Berserkers*. Replicants and Millennia Warrior elements became embroiled in a large and confused dogfight over Scirocco.

FORCES

Side A — Covering forces of the *Bright Victory* raid on Scirocco. Players may choose their loads, but all Torps and Missiles must have Explosive Warheads.

- 1 x Voloskai Destroyer
- 1 x Falconeer MMAC
- 2 x Glaive TMAC
- 2 x Fire Brand SMAC
- 3 x Ferret SMAC

Special Note: *The Fire Brands suffer from inferior Computer Programs (Tactics:45, Predict:45, Evade:45).*

Side B — A mixed force of *Frothing Berserkers*, and Coristan Regulars flying as an auxiliary Legona Hydraxi unit. Players may choose their loads, but all Torps and Missiles must have Explosive Warheads.

- 1 x Geenen Frigate
- 3 x Death Wing MMAC
- 2 x Manx TMAC
- 2 x Thunder Bird SMAC

SET UP

Note: *Set up should be secret and simultaneous.*

Side A —

Force 1 consisting of at least 2 vessels start in Area A.
........................*Acquired Momentum:* 4

Force 2 consisting of at least 2 vessels start in Area F.
........................*Acquired Momentum:* 7

Force 3 consisting of at least 1 vessel start in Area C.
........................*Acquired Momentum:* 3

Side B —

Force 1 consisting of at least 2 vessels start in Area D, facing direction "3".
........................*Acquired Momentum:* 5

Force 2 consisting of the rest of the vessels start in Area E.
........................*Acquired Momentum:* 9

VICTORY CONDITIONS

This scenario lasts a maximum of 10 Rounds. Adjusted Monetary Victory Points (AMVPs, see Section 6.5) are in effect. If at the end of any Round, starting with Round 5, one Side holds a 3-1 advantage in AMVPs, the scenario is over and that Side automatically wins.

6.0

DESIGNING YOUR OWN SCENARIOS

What follows are some guidelines for creating your own *Star Strike* scenarios. Generally, there are five steps in the procedure:

1) Determining an *Objective*
2) Selecting *Forces* (starcraft) to meet the Objective
3) *Loading Up* those selected starcraft
4) Selecting *Personnel* to man the starcraft
5) Determining the *Victory Conditions* of the scenario

6.1
OBJECTIVE

Most battle scenarios in *Star Strike* will either involve a defined attacker and a defined defender, or be a meeting engagement between two (or more) aggressive forces. The *first* type of scenario is called an "Attacker/Defender Game" and the Victory Conditions will be influenced by the success of the attacker to meet his objective. The *second* type of scenario is called an "Engagement Game" and the Victory Conditions will almost always be based upon Adjusted Monetary Victory Points (see Section 6.5).

ATTACKER/DEFENDER GAME

When designing a *Star Strike* "Attacker/Defender Game", consult the following list of Objectives and select one for the Attacker (either randomly or pick). If there is a "*" at the end of the Objective selected, roll for the Objective of the scenario's Defender after Sides and Forces have been determined. If there is no "*" at the end of the Objective selected, there will be no other purpose for the Defender during the game other than preventing the Attacker from achieving his Objective.

ATTACKER'S OBJECTIVE:

1) **Penetration.** All of Attacker's vessel(s) must cross 1D5 complete mapboards lengthwise using Maneuvering Thrusters only. *
2) **Contact.** At least one of Attacker's vessel(s) must move adjacent to each of Defender's vessel(s) without any of Attacker's vessel(s) being the first to discharge any Weapon Mounts or grapple with Tractor Beams. *
3) **Repel Aggressors.** Attacker's vessel(s) must Disable, Destroy, or force the Disengagement of all of Defender's vessel(s). *
4) **Capture Intruder.** Attacker must capture one of Defender's vessel(s) by means of a Boarding Action. **Note:** *Defender is not allowed to Disengage any of his vessels.* *

5) **Destroy Invader.** Attacker must have Destroyed one of Defender's largest Mass Category vessel(s) which had not Disengaged. If all Defender's vessel(s) Disengage and/or are Disabled, Attacker immediately wins by default.

DEFENDER'S OBJECTIVE:

Note: *Roll only after Sides and Forces have been determined, and then only if a "*" appears in the Attacker's Objective.*

1) **Switch.** Defender is now the Attacker and takes on Attacker's Objective. Attacker is now the Defender and must prevent the new Attacker from achieving his Objective.
2) **Prevent Capture.** Defender must not lose a vessel to capture by Boarding Action. Otherwise Defender loses automatically.
3) **Self Destruct Moratorium.** Defender may not Self Destruct any vessel(s). Otherwise Defender loses automatically.
4) **Energy Weapons Hold.** Defender may not be the first to use any sort of Energy Cannon, and then he may only use specific Cannon types which are fired against him first by Attacker's vessel(s). Otherwise Defender loses automatically.
5) **Eradicate Foe.** Defender must Disable, Destroy or force the Disengagement of all of Attacker's vessel(s).

SET UP

When designing scenarios, players should agree on a reasonable Set Up for the game to be played. As a guide, in Attacker/Defender Games, the Defender should deploy on the Map first and then the Attacker should place his units no closer than 5D10 hexes/km away from the nearest Defender.

In an Engagement Game, both Sides should deploy simultaneously and in secret along the Map edges.

Initial Momentum for all vessels can be randomized by rolling 2D10 for each starcraft.

6.2
SELECTING FORCES

In an Engagement Game, players should decide on an Cost (Elmonit) limit, and then secretly purchase unloaded vessel(s) up to, but not exceeding, that limit.

In an Attacker/Defender Game use the following procedure:

a) Players should decide on a Cost Category for the scenario after the Attacker's Objective has been determined. The Cost Categories for a scenario follow:

Scenario Cost Categories
A) 1K — 1000K Elmonits
B) 1000K — 5000K Elmonits
C) 5000K — 10,000K Elmonits
D) 10,000K — 50,000K Elmonits
E) 50,000K — 100,000K Elmonits
F) 100,000K — 500,000K Elmonits
G) 500,000K — 1,000,000K Elmonits
H) 1,000,000K + Elmonits

b) Once a Cost Category for the scenario is decided upon, both players secretly select an Elmonit value that they would build their force with if they were the scenario's Attacker.

c) Players simultaneously reveal their Elmonit value for the Attacker. The player with the lowest recorded value becomes the Attacker (roll off if both have the same recorded value) and must select vessel(s) whose cumulative unloaded Cost(s) do not exceed his recorded Elmonit value for the Attacker. The other player then becomes the scenario Defender and must select vessel(s) whose cumulative unloaded Cost(s) is limited to 50% of his recorded Elmonit value **or** the Attacker's value (whichever is smaller).

Example: *Using Cost Category "E", two players secretly record their "bids" for playing the Attacker in an Attacker/Defender Game. Player X writes down 60 million Elmonits while Player Y picks 100 million Elmonits. After revealing their bids, Player X will be the Attacker with 60 million to spend on starcraft and Player Y will be the Defender, having 50 million (50% of 100 million) to spend.*
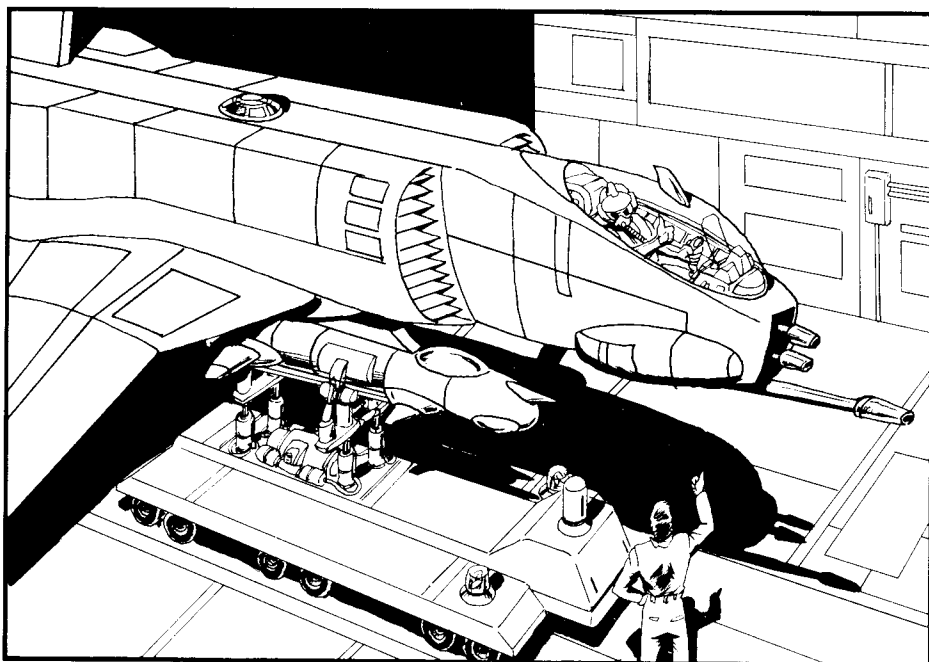
Picking Starcraft

When selecting vessel(s), players pay for each unloaded craft with their designated Elmonit totals. The sum total of all vessels purchased by a player may not exceed his Elmonit limit, though any number of vessels might be purchased.

Players may specify beforehand that a particular starcraft design may not be used by both sides in the scenario. In this instance, players should sanction certain designs for the Attacking and Defending sides before the scenario design procedure is instigated.

If players are ambitious, they may design their starcraft for the scenario from scratch, customizing them to their particular missions. Use the Construction and Cost rules found in Section 9.0.

6.3 ▮▮▮▮▮▮
LOADING UP

After the players' forces have been selected, they should be "Loaded Up" with Auto Cannon ammunition, Missiles and Payload Pallet items. The costs for these items are found in Section 9.11. All Loaded ordnance should be recorded secretly, and those costs added to the Cost of vessel(s) used by each player.

The value of a vessel with its Auto Cannon ammo, Missiles and Payload Pallet items on board is called its "Loaded Cost". It is the Loaded Cost of a vessel which is used in the Adjusted Monetary Victory Point calculation in Section 6.5.

6.4 ▮▮▮▮▮▮
SELECTING PERSONNEL

Once players have their vessels Loaded Up, they must determine the skill value(s) of the personnel aboard. For each vessel, roll once on the Standard Game Pilot Generation table (Section 4.1) and record the roll and the resultant values. If a vessel has multiple Weapon Mounts which would normally be manned by Gunner(s), roll once on the Standard Game Gunner Generation table (Section 4.1) and record the roll and the resultant values. Note that only one roll is made despite the fact that there will probably be several Gunners aboard the vessel; the roll in this case represents the average skill values of those Gunners aboard.

The rolls made to select Pilots and Gunners must be recorded for the purposes of determining the Adjusted Monetary Victory Point value of each vessel in Section 6.5.

After Personnel are selected, roll for a Defender's Objective (Section 6.1) if necessary.

6.5 ▮▮▮▮▮▮
VICTORY CONDITIONS

In an Attacker/Defender Game, victory of one side over the other will be dependant upon one side fulfilling the terms of its Objective. A draw may result if both sides have Objectives to meet and achieve them. Players, upon mutual consent, may make victory somewhat weighted by the Adjusted Monetary Victory Point (AMVP) value of vessels in the game. For instance, players may decide that for the Attacker to win decisively, he must score twice as many AMVPs as the Defender, and so on.

Adjusted Monetary Victory Points

Adjusted Monetary Victory Points (hereafter referred to as AMVPs) are an accurate measure of the value of a vessel lost in combat. To arrive at the AMVP for a vessel:

a) Start with the Loaded Cost of a vessel as determined in Section 6.3.

b) Multiply the Loaded Cost by the Personnel Factor to arrive at the Personnel Loaded Cost. To determine the Personnel Factor, average the rolls made to determine the Pilot(s) and Gunner(s) for the vessel and consult the following chart:

Pilot/Gunner Average Roll	Personnel Factor
1.0-2.0	x0.50
2.1-4.0	x0.75
4.1-6.0	x1.00
6.1-8.0	x1.25
8.1-10.0	x1.50

c) Multiply the Personnel Loaded Cost of a vessel by its Condition Factor at the end of a scenario to arrive at its Adjusted Monetary Victory Point value. Consult the following chart:

Condition of Vessel	Condition Factor
Disengaged	x0.50
Disabled	x1.00
Destroyed	x2.00
Captured	x5.00

d) Score AMVPs for enemy vessels Disengaged, Disabled, Destroyed or Captured. During an Engagement Game, the player scoring the most AMVPs is the winner.

AMPV =

(Loaded Cost) x (Personnel Factor) x (Condition Factor)

7.0

THE ADVANCED GAME

The Advanced Game is identical to the Standard Game, except that it is played in three dimensions — extending the "live" area of play above and below the plane of the Map. Through the use of Altitude Markers provided on the Utility Marker sheet, vessels are represented as being not only in a hex, but also at a certain altitude. Use Altitude Markers to designate a unit's position relative to the Zero (0) altitude represented by the Map plane itself. The combination of hex and altitude defines a unit's Location.

One altitude level is equivalent to one hex/kilometer.

Use white markers to designate positive altitude and black markers to designate negative altitude.

Example: *Unit A is at altitude +37 hexes/km. Unit B is at altitude -15 hexes/km.*
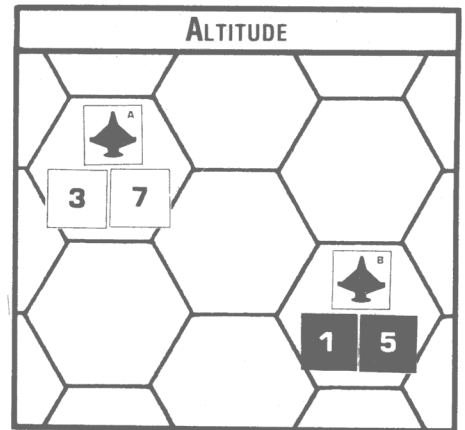
ALTITUDE

7.1

ADVANCED MOVEMENT

Advanced Game Movement requires not only an accounting of where a Unit is in the horizontal plane of the Map surface, but also an indication of its attitude and altitude in the vertical plane. Refer to the Advanced Game Attitude/Altitude Indicator.
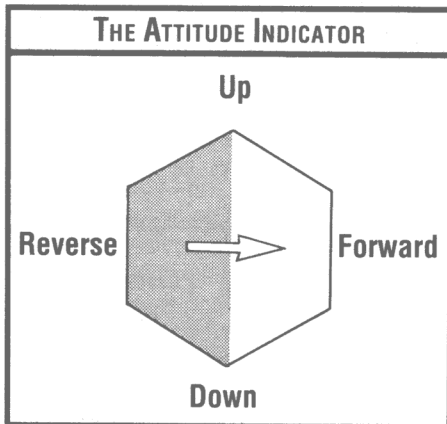
THE ATTITUDE INDICATOR

Attitude is a term used to indicate whether a starcraft is pointing straight ahead, or tipped upwards or downwards to varying degrees.

When flying parallel to the plane of the Map, a Unit's attitude marker (arrow) should be pointing forward. When a player desires to begin travelling "up" or "down" (relative to the plane of the Map), he will have to make turns in the Attitude Indicator hex. These turns are similar to horizontal turns made in the Standard Game. A one hex-side turn requires a vessel to cancel its momentum, and additional turns cost 1 MT each.

There is a slight difference between horizontal and vertical turns, however. When turning in the vertical plane, allowance is made for a player who wishes to move "straight up" (out of the Map) or "straight down" (into the Map). From a forward attitude, two turns are needed to point a starcraft straight up or straight

down. Note that this will not exactly conform to the normal hex side facing rule. Consult the graphic representations of the Attitude Indicator below.

When enough vertical turns are performed to tip a vessel's Attitude Indicator arrow toward the left three hex-

sides, a reversal occurs. A reversal indicates that the horizontal plane representation of a vessel on the Map must be reversed 180 degrees (i.e., turned completely around). Once a reversal occurs, another will follow as soon as the Attitude Indicator arrow is turned back towards the Forward portion of the Indicator hex.

VERTICAL TURNS USING THE ATTITUDE INDICATOR

Vertical Turns Upward

1 turn (vessel now angled up)

2 turns (vessel now straight up)

2 turns (vessel now angled up, with a reversal)

3 turns (vessel now level, with a reversal)
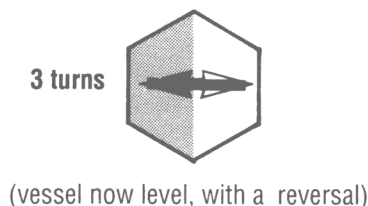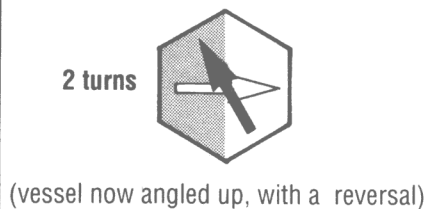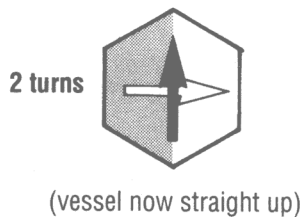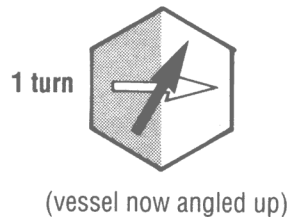
Vertical Turns Downward

1 turn (vessel now angled down)

2 turns (vessel now straight down)

2 turns (vessel now angled down, with a reversal)

3 turns (vessel now level, with a reversal)
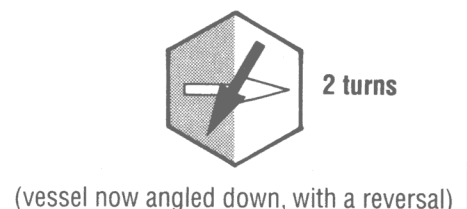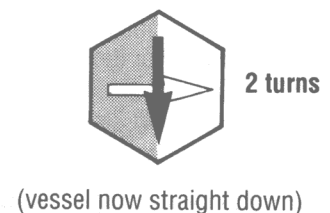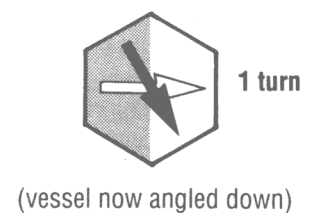
Note that vertical plane turns are cumulative over the course of play. For example, a craft that begins one Round level and forward but makes one vertical turn during its move ends that Round angled upwards. During the next Round it may make another vertical turn up, and the player could decide whether he wanted the vessel to now be facing straight up or angled up with a reverse of the counter made on the Map. From the angle up/reverse attitude, one more vertical turn could bring the vessel level again (albeit, facing in the opposite direction from its original heading).

Because Drift will have to be performed in three dimensions also, Starcraft Dummy markers will have to be marked with Altitude Counters. If, during the Drift portion of the Round, a Dummy has a different altitude than its vessel, the Drift will likely entail an altitude change for both the vessel and the Dummy marker. Move both in accordance with the Drift principals modified by the rules for movement outlined below.

Players are free to alternate vertical turns with horizontal turns, as long as the Standard Game turning requirements are met in each case.

STRAIGHT UP/DOWN MOVES
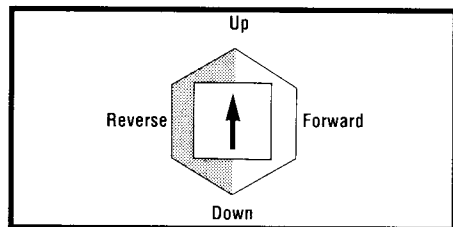
When a vessel has an attitude of straight up or down, MTs expended will only change the craft's altitude, not its relative position on the horizontal display of the Map.

Drift is performed as usual, but vessels which have moved straight up or down will have their Drift indicated only by an altitude change.

ANGLE UP/DOWN MOVES
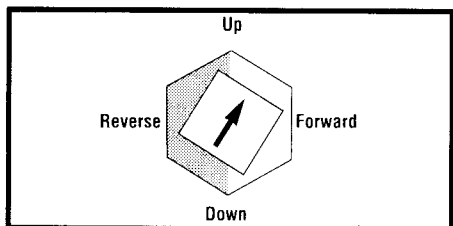
When a starcraft is tipped upwards or downwards and it begins expending MTs, it will both change altitude and its relative position on the horizontal display of the Map. The procedure for doing this follows.

Angle Up/Down MT expenditures *alternate* a one hex move forward on the Map with a one km change in altitude. If the vessel's Attitude Indicator arrow is pointed upwards, the altitude change will be a "climb" up. If the vessel's Attitude Indicator arrow is pointed downwards, the altitude change will be a "dive" down.

Use the Last Angle Move track on the Advanced Game Attitude/Altitude Indicator to show whether the last Angle Up/Down move (MT expenditure or Drift) of the vessel was straight ahead on the Map, or an altitude change (up or down).
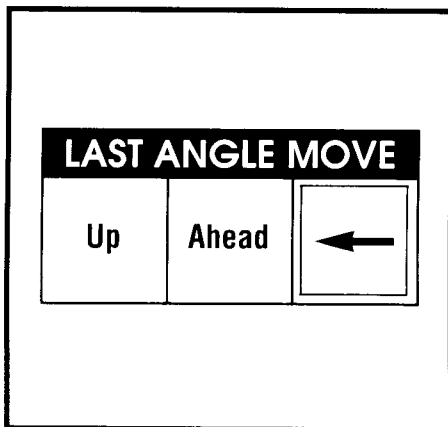
Drift must be performed normally, but a starcraft with momentum acquired while angled upwards or downwards will usually Drift in a combination of moves ahead and altitude changes up or down. See the example below.

Example: *Gunboat A — with a Forward attitude at altitude +46 — makes one turn in the vertical plane and is now pointed in an Angle Up attitude (still at altitude +46). It then expends its remaining five (5) MTs. The first point moves the vessel one hex forward on the Map. The second changes its altitude from +46 to +47. The third moves it ahead one more hex on the Map. The forth increases its altitude to +48. Finally, the fifth MT moves the Gunboat ahead one more hex on the Map. The move finished, Gunboat A's player notes the following:*

1) *The Last Angle Move arrow should be pointed towards the "AHEAD" box.*

2) *The Final Momentum of the vessel is 5, with the craft's Dummy marker three hexes behind and given an altitude marking of +46.*

3) *Next Round, the Gunboat will drift 3 (1 up, 1 ahead, 1 up), and then the Last Angle Move arrow will point to the "UP" box. The craft's Dummy marker will Drift in exactly the same way.*

ANGLE UP MOVE EXAMPLE

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Number is the target's *maximum* allowable altitude difference above or below the firer.
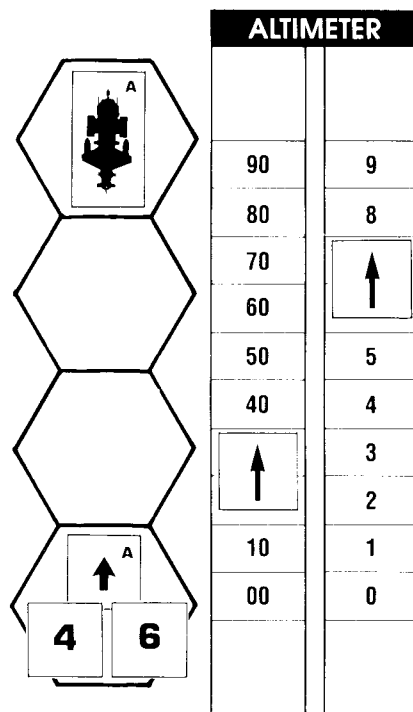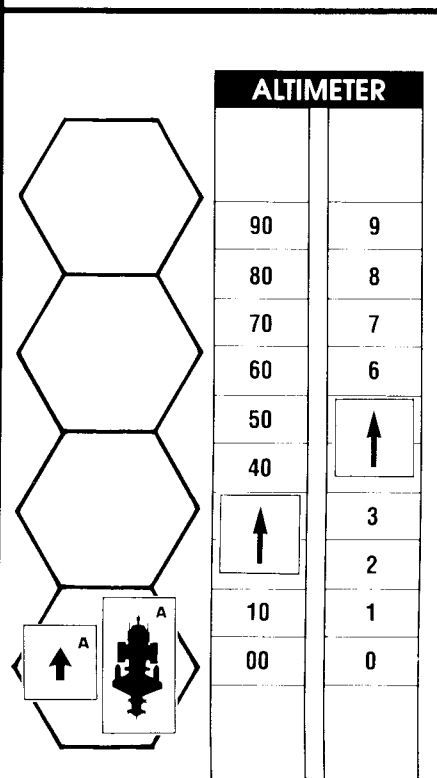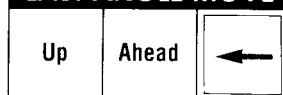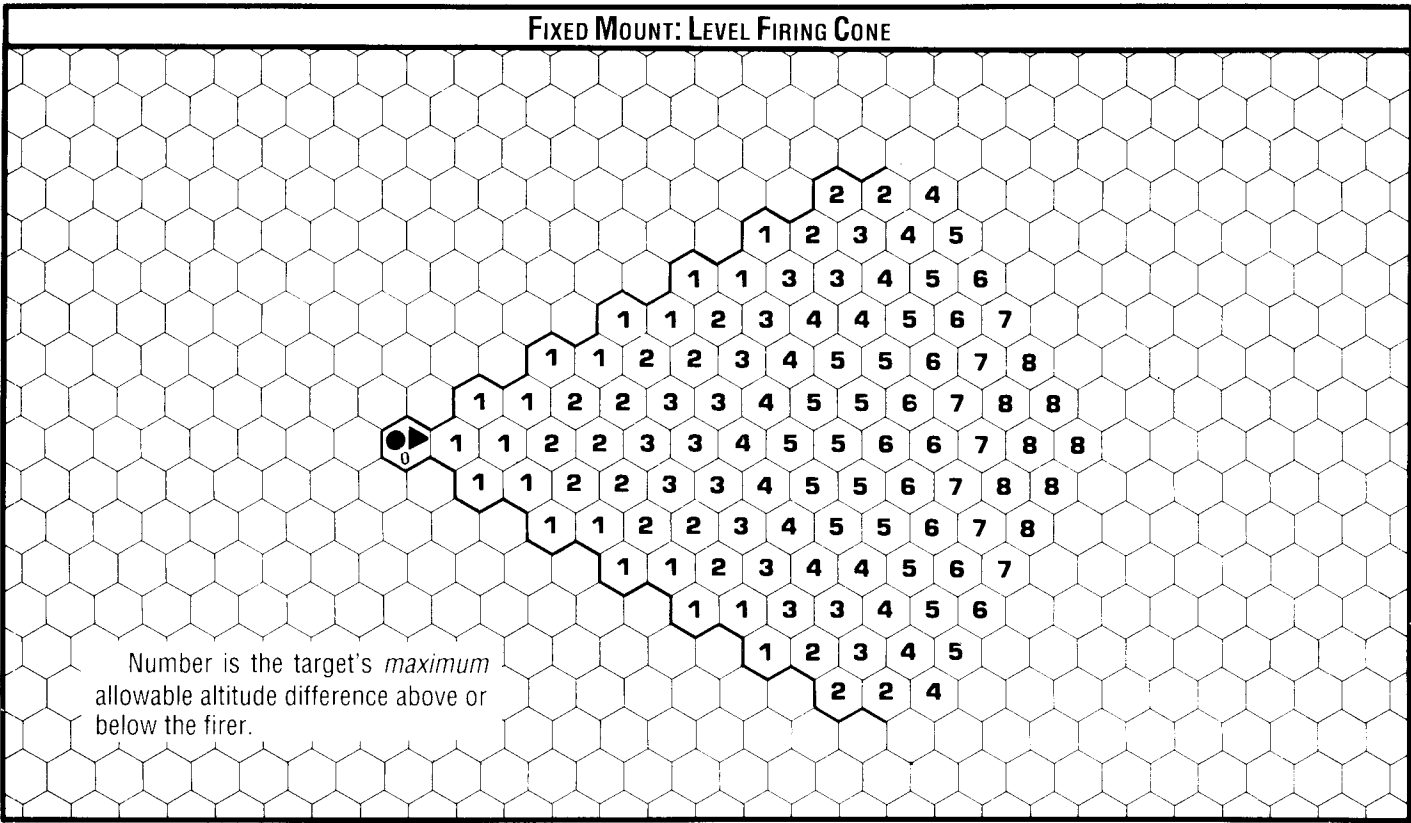
Note: *When a vessel begins to expend MTs while in an Angle Up/Down attitude, the player may decide whether the first move will be a horizontal displacement on the Map or an altitude change. However, all subsequent moves along the same vector must alternate as usual.*

ALTIMETER

The Altimeter is a convenient alternative method of recording a vessel's altitude (as opposed to, or in addition to using the Altitude Counters on the Map). Use arrows on the Altimeter tracks to record the vessel's altitude in the "tens" and "ones" columns. If the present altitude of a vessel is positive (above the zero reference altitude of the Map plane), point the altitude arrows upwards to the appropriate altitude. If the present altitude of a vessel is negative, point the altitude arrows downwards to the appropriate altitude.

Example: *"A" indicates a vessel at +37 kilometers. "B" indicates a vessel at -98 kilometers.*

Change the Altimeter reading as a vessel moves or drifts, counting off the change as you expend MTs.

7.2 ▉▉▉▉▉▉▉
ADVANCED FIRING

There are two firing considerations which are added in the Advanced Game:

1) Is the target in the Weapon Mount's three dimensional Firing Cone?
2) What is the range to the target?

FIRING CONES

There are two ways that any given Weapon Mount's Firing Cone can manifest itself in the Advanced Game:

• If the Mount is *Level.*

• If the Mount's facing is *Straight Up* or *Straight Down.*

A Weapon Mount is considered to be facing Straight Up or Straight Down if:

1) It is located on the vessel's Front or Rear facing and the vessel presently has a Straight Up or Straight Down attitude. **or**
2) It is located on the vessel's Top or Bottom facing and the vessel presently has anything but a Straight Up or Straight Down attitude.

In all other cases, a Weapon Mount is considered to be Level.

Fixed Mounts and Flexible Mounts: What follow are graphic representations of the Fixed Mount and Flexible Mount Firing Cones in both their Level and Straight Up/Down incarnations.

The Level Mount graphics show the hexes which lie within the mount's Covered Arc. Each hex contains a number. This number represents the **maximum** altitude difference that the target can be above OR below the firing vessel and still be hit by that Weapon Mount.

The Straight Up/Down graphics indicate the firing vessel's hex and the hexes around it. The numbers in these hexes represent the **minimum** altitude differential that the target must be above or below (which ever is appropriate) the firing vessel.

Turret Weapon Mounts: The Turret Weapon Mount has very simple three dimensional Firing Cones. If Level, the Turret Mount can hit targets within its 180 degree Standard Game firing arc at any altitude differential. If Straight Up/Down, a Turret Mount may fire in a 360 degree arc at any target either at the same altitude or higher/lower (as appropriate).

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Number is the target's *minimum* allowable altitude difference above or below the firer (as appropriate).

Formula: *minimum* allowable altitude = lateral hex range divided by 0.577

FLEXIBLE MOUNT: LEVEL FIRING CONE
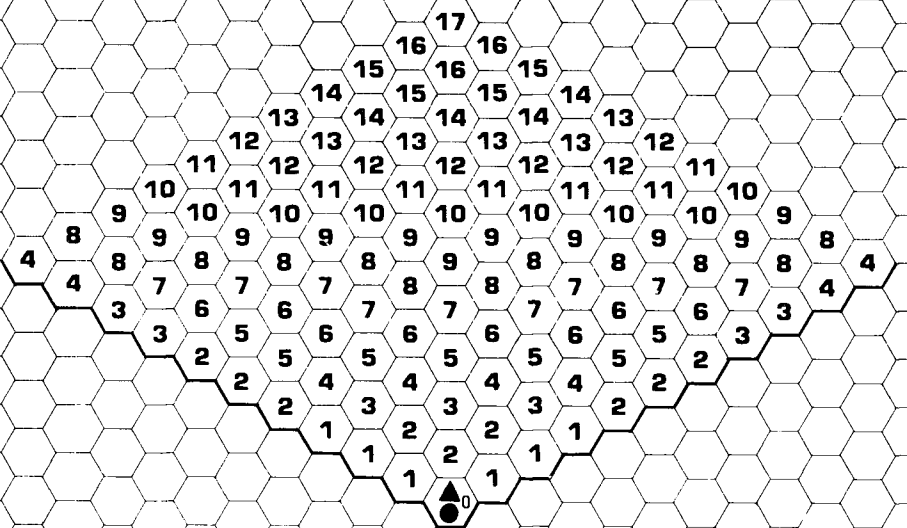
Number is the target's *maximum* allowable altitude difference above or below the firer.

FLEXIBLE MOUNT: STRAIGHT UP/DOWN FIRING CONE

Number is the target's *minimum* allowable altitude difference above or below the firer (as appropriate).

Formula: minimum allowable altitude = lateral hex range divided by 1.73

ADVANCED GAME RANGE CHART

Result is added to the Larger Differential (Altitude Differential or Horizontal Differential) to obtain the actual Range.

Larger Differential																			Smaller Differential
0-1	2	3	4	5	6	7	8	9	10-11	12-13	14-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	
+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	0-1
	+1	+1	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	2
		+1	+1	+1	+1	+1	+1	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0	3
			+2	+1	+1	+1	+1	+1	+1	+1	+1	+0	+0	+0	+0	+0	+0	+0	4
				+2	+2	+2	+1	+1	+1	+1	+1	+1	+0	+0	+0	+0	+0	+0	5
					+2	+2	+2	+2	+2	+1	+1	+1	+1	+1	+1	+0	+0	+0	6
						+3	+3	+2	+2	+2	+2	+1	+1	+1	+1	+1	+1	+0	7
							+3	+3	+3	+2	+2	+2	+1	+1	+1	+1	+1	+1	8
								+4	+3	+3	+3	+2	+1	+1	+1	+1	+1	+1	9
									+5	+4	+4	+3	+2	+2	+2	+1	+1	+1	10-11
										+5	+5	+4	+3	+3	+2	+2	+2	+2	12-13
											+6	+5	+4	+4	+3	+3	+2	+2	14-15
												+8	+7	+6	+5	+5	+4	+4	16-20
													+10	+9	+8	+7	+6	+6	21-25
														+12	+11	+10	+9	+8	26-30
															+14	+13	+12	+11	31-35
																+17	+15	+14	36-40
																	+19	+17	41-45
																		+20	46-50

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RANGE

To calculate the range to a target in the Advanced Game, Star Strike uses the Pythagorean Theorem. The range to the target equals the Square Root of the sum of the squares of the horizontal and vertical ranges. In other words, count the horizontal range (in hexes) to the target. Then count the vertical range (as an altitude level differential). Square both values and then add them together. Take the Square Root of the sum. Round off the result the the nearest whole number and you have the Advanced Game Range.

Range =

Square Root of (horizontal range squared + vertical range squared)

Example: *Vessel A wishes to fire at vessel B. The Firing Cone of the Weapon Mount has been checked, and vessel B is a legal target. Next, the range between the two is calculated. Vessel A is at altitude -4. Vessel B is at altitude +13. The horizontal range between them on the Map is 6 hexes. The actual range is the Square Root of (6 squared plus 17 squared), which equals a Range of 18.*

Alternatively, you can use the *Advanced Game Range Chart* which approximates the range by using the formula above for a spread of values. This Chart uses "Differential" to refer to the distance between two vessels along either the Horizontal axis or the Vertical (Altitude) axis.

DEFLECTION

Line Astern Deflection: A firer is only qualified to gain the Line Astern Deflection modifier (see Section 4.8) if he could theoretically move from his present Location, without turning, and enter the target's Location through the rear hexside. Additionally, firer and target should have the same Altitude Facing (e.g., Angle up/down or Straight up/down).

Other Deflection Angles: Players should use common sense when applying the Standard Game Deflection modifiers (see Section 4.8).

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8.0

OPTIONAL RULES

The following sections list various Optional Rules which players may use as they see fit. Note that every Optional Rule added to a game increases the complexity and the time required to play.

8.1

OPTIONAL ELECTRONIC WARFARE CAPABILITIES

As it stands in the Standard Game, Electronic Warfare adds to a vessel's DB and little else. When using Optional EW Capabilities, Electronic Warfare takes on a multitude of roles, increasing its impact on the game system.

CLOAKING

A vessel may begin a game "cloaked" — being impervious to attack until an opponent makes a successful Sensor detection roll against it.

A vessel begins a game cloaked if it can generate an EW value of over 100 (i.e., 101+). This can be accomplished by having a high inherent EW and then adding EW Pods on top of this (see Section 8.6), or by having a referee who designates certain vessels as having some sort of technological advantage/device.

EW STRIPPING

EW Stripping is a method of reducing an opponent's EW value.

During the Final Orientation Phase, a vessel capable of performing an Orientation Phase activity may opt to "Strip" one or more opponents of all or part of their EW during the next Round. EW Stripping is essentially a cancelling process: for each point of EW successfully expended by the attacking vessel, a point of EW will be deleted from a target for one Round. The points of EW expended by the attacker may only be spent once per Orientation Phase, though they can be parcelled out amongst eligible opponents in any manner the attacker sees fit.

To perform an EW Strip of an opponent, the following conditions must be met:

- The target(s) must be within a number of hexes/km not to exceed the attacker's EW Rating.
- Each target must have an EW value less than that of the attacking vessel.
- The sum total of all target's masses may not exceed the attacking vessel's mass.
- The attacking vessel must make a EW Stripping Roll against each target.

To EW Strip a target, roll against it in the following manner:

1) Make an Open-ended Roll.
2) Add the EW skill value of the EW operator aboard the attacking vessel (requires that a *Space Master Role Playing* character is aboard with EW skill). If *Space Master: The RPG* is not being used, assume an EW skill value of 30 + 2D10.
3) Add any Damage and/or Casualty Modifiers to determine the final modified roll.

If the Modified Roll is over 100 (101+), the EW Stripping attempt is successful. If successful, the attacker and target vessel have their EW values reduced during the next Round by the amount the attacker committed to the EW Strip. If unsuccessful, only the attacker's EW value is lowered by the amount he committed to the EW Strip.

EW Strips which would lower a vessel's EW value below zero (0) will not result in a negative EW value, nor produce any further penalty.

Modified Roll =
> Open-ended Roll
> + EW skill value of the attacker
> + Damage/Casualty Modifiers

Example: *Cruiser A (mass = 20K tons) has an EW value of 45. During the Final Orientation Phase, enemy Gunboat B (mass = 3K tons) is 9 hexes/km away and has an EW value of 40. Therefore, A may attempt to EW Strip B. Cruiser A commits 40 points of its EW to the EW Strip and is successful. During the next Round, Cruiser A has an EW value of 5 and Gunboat B has an EW value of 0.*

JAM TORPEDOES

A vessel having Torpedo(s) homing in on it may use EW to prematurely detonate it/them during the Final Orientation Phase. Jamming Torpedoes counts as an Orientation Phase activity.

To jam an incoming Torpedo, the target vessel's player must decide how much of his EW he wishes to commit to the detonation attempt. Any portion of a vessel's EW committed to Torpedo detonation is unavailable for any purpose during the next Round. Separate Torpedo jamming attempts each require a portion of the EW allocation. Each jamming attempt requires that at least 5 points of EW be committed to it.

There is no effective range limit to jamming attempts.

Roll to jam an inbound Torpedo in the following manner:

1) Make an Open-ended Roll.
2) Add the EW skill value of the target vessel's EW operator (requires that a *Space Master Role Playing* character is aboard with EW skill). If *Space Master: The RPG* is not being used, assume an EW skill value of 30 + 2D10.
3) Add the portion of the vessel's EW committed to the Jamming attempt of that particular Torpedo.
4) Subtract the Torpedo's EW value
5) Add any applicable Damage or Casualty Modifiers

If the modified roll is over 100 (101+), the Torpedo subjected to the jamming attempt immediately detonates. If the Torpedo's warhead is Nuclear or Matter/Antimatter, resolve the blast against any eligible targets.

Example: *Frigate A has an EW value of 50, a EW operator skill value of 35, and during the Final Orientation Phase, there are three inbound Standard Mk.20 Torps. Frigate A's player picks "Jamming Torpedoes" as his Final Orientation Phase activity. He commits 5 points of EW against each Torpedo and makes the three rolls. Each roll has +30 added to it (+5 Frigate EW, +35 Skill, - 10 Torpedo EW). The rolls are 04, 67, and 89 — modified to 34, 97, and 119. The final roll results in Torpedo detonation. Next Round, Frigate A has an effective EW value of 35, since 15 points were used in the jamming attempt.*

Note: *If a Space Master: The RPG character is performing jamming attempts, he may not attempt to jam more Torps than EW Skill Ranks he possesses.*

Modified Roll =
> Open-ended Roll
> + EW skill factor of the target vessel's operator
> + Portion of EW value committed to the jam
> - Torpedo's EW value
> + Damage/Casualty Modifiers

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JAM COMMUNICATIONS

Only Microfrequency Communications may be jammed with EW. During the Final Orientation Phase a vessel may attempt to jam a target's (or multiple targets') Microfreq transmissions and receptions as an Orientation Phase activity. Multiple targets may have their Mircofreq Rigs jammed, but no more than one per 5 points of the jammer's EW value may be affected. To jam communications, the following conditions must exist:

• The jammer must have a higher EW value than the target.

• The target must be within a number of hexes/km equal to the jammer's EW Rating x 100.

To jam Microfreq Rigs, use the following procedure:

1) Make an Open-ended Roll

2) Add the jammer's EW operator skill bonus (requires that **Space Master Role Playing** characters with EW skill be used). If **Space Master: The RPG** is not available, assume a EW skill bonus of 30+2D10.

3) Add the jammer's EW value.

4) Subtract the target's EW value.

5) Add any Damage/Casualty Modifiers.

If the Modified Roll is over 100 (101+), the jamming attempt is successful. Successful jamming reduces the target's effective Microfreq Rating by the jammer's EW value. For instance, if a successful jammer has an EW value of 50, its target will have its Microfreq Rig's Rating reduced by 50. The jamming reduction lasts for as long as the target is within jamming range and the jammer is not Disabled, Destroyed, Disengaged or has his EW value reduced in any way.

Auxiliary Microfreq Rigs are reduced to the same extent as the main unit.

Modified Roll =
Open-ended Roll
+ Jammer's EW operator Skill Bonus
+ Jammer's EW value
- Target's EW value
+ Damage/Casualty Modifiers

8.2
OPTIONAL MOMENTUM MOVEMENT

Players of the Standard Game can better simulate the frictionless environment of space by using this variation of the Movement System. Increase the number of Dummies used by each starcraft from one to six. Thus, there will be one Dummy for each of the six vectors possible in a hex.

Use the normal acceleration and deceleration rules, but allow a vessel to make turns at a cost of zero (0) MTs per hex-side turned. Momentum may now be acquired in multiple directions. Drift is still performed, but a vessel (along with all Dummies) must Drift in accordance with each vector that momentum is accumulated along.

OPTIONAL MOMENTUM DRIFT
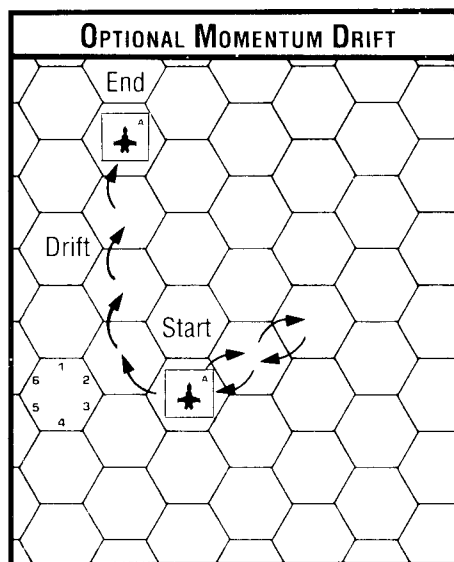
Example: *SMAC A at the beginning of a Round is facing direction (1). Dummy A-1 is 4 hexes away facing direction (2). Dummy A-2 is 3 hexes away facing direction (5). Dummy A-3 is 1 hex away facing direction (6). Dummy A-4 is 6 hexes away facing direction (1). SMAC A must now Drift. It drifts 2(2), 2(5), 1(6) and 3(1). After the Drift, note that the Dummy markers will not change their relative positions.*

DEFLECTION

For the purposes of the *Deflection Modifier* (see Section 4.8), assume that each ship is facing in the direction of its largest momentum vector. If several vectors are equal, the attacker may choose the vector that is used. This rule is an approximation of the Deflection effect, so players may wish to determine the actual vector of momentum for use in determining the Deflection Modifier (good luck).

WITHHOLDING 0 MTS

If this optional rule is being used, a pilot performing a "Withhold MTs" maneuver (see Section 4.7) may attempt to "withhold" 0 (zero) MTs. The difficulty of this maneuver is *Light* (+10), and, if successful, the pilot may spend "0" MTs to face his vessel in any direction when "withheld MTs" are normally expended.

8.3
OPTIONAL REVERSE MOVEMENT

Players may encounter situations where they desire to move their vessels backwards. If so, assume the following:

• The function of the Maneuvering Thrusters which allows deceleration will also provide the thrust for Reverse Movement.

• Momentum is built up during Reverse Movement in the same way that it is for normal forward movement, except that the vessel's Dummy marker will be placed in the hex row extending away from the front of the craft.

• Deceleration while using Reverse Movement is accomplished by applying MTs in their acceleration mode.

• All Pilot bonuses are at half value while using Reverse Movement.

8.4
OPTIONAL HYPERSPACE MOVEMENT

If players of a **Space Master** campaign believe that Translight Drives do not displace a vessel fast enough for their tastes, this optional Hyperspace movement rule can be incorporated.

Hyperspace displacement is instantaneous. The rating of the Translight Drive represents the maximum distance of any given Hypershunt. For long distance journeys, a series of Hyperjumps need be performed, each requiring Hyperspace Astrogation and Piloting rolls to determine levels of success. As usual, one Andrium Unit is consumed for each Light Year displaced.

8.5

OPTIONAL WARHEADS FOR MISSILES AND TORPEDOES

The campaign environment of *Space Master: The Role Playing Game* precludes the use of most devastating warheads (Nuclear and Matter/Antimatter) due to Imperial restrictions. Therefore, Explosive Warheads for Missiles and Torpedoes are the norm. However, attack tables are given for more powerful warheads to allow players greater flexibility.

BLAST RADII

The Nuclear and Matter/Antimatter (M/A) attack tables are unique in that they do not have damage thresholds based on a weapon's Mk.#, but rather the thresholds are based upon the position of the target relative to the detonating warhead. Essentially, the closer the target is to the point of detonation, the more damage it is likely to receive.

When a warhead detonates, it produces five (5) Blast Radii which are like concentric spheres radiating out from the explosion. The 1st Blast Radius is closest to the detonation, the 5th is furthest away. To determine the Blast Radii of a Nuclear or M/A detonation, consult the *Nuclear or Matter/Antimatter Blast Radii Chart*.

When a Nuclear or M/A warhead detonates, all constructs, friend or foe, are attacked with a Combat Roll. Using the chart above, determine which Blast Radius is occupied by a target. This will help determine the OB for the Combat Roll and the maximum applicable damage threshold.

OB CALCULATION

The OB for a Combat Roll made for a Nuclear or M/A warhead only takes into account the distance to the target and the Mk.# of the weapon. There are no other factors added to the Combat Roll.

To calculate the OB for a Nuclear or M/A warhead attack, select one of the following appropriate categories:

- Mk.# + 100 if target is within the 1st Blast Radius.
- Mk.# + 50 if target is within the 2nd Blast Radius.
- Mk.# + 25 if target is within the 3rd Blast Radius.
- Mk.# + 10 if target is within the 4th Blast Radius.
- Mk.# + 0 if target is within the 5th Blast Radius.

NUCLEAR OR MATTER/ANTIMATTER BLAST RADII CHART					
Mk.# of the Nuclear or M/A Warhead	1st Blast Radius	2nd Blast Radius	3rd Blast Radius	4th Blast Radius	5th Blast Radius
6-10	Target hex	1 km	2 km	4 km	8 km
11-20	1 km	2 km	4 km	10 km	20 km
21-30	2 km	4 km	8 km	25 km	50 km
31-40	4 km	8 km	16 km	50 km	100 km
41-50	8 km	16 km	32 km	100 km	500 km

DB CALCULATION

The DB subtracted from a Combat Roll made for a Nuclear or M/A warhead only takes into account the target's Armor Quality (Superior Alloy) bonus, Armor Belt bonus and Screen value. There are no other factors subtracted from the Combat Roll.

MISSILES

Missiles may be armed with Nuclear warheads, but not Matter/Antimatter warheads. The regular Missile attack procedure is ignored when making the Combat Roll for a Nuclear Missile, though a Lock-on is still required. Each Nuclear Missile attack must be rolled for separately. A Nuclear Missile always detonates in the Location occupied by its target.

As an alternate firing method, a Gunner can specify a certain Location within range, which is presently unoccupied, as the target of his Missile(s). No Lock-on roll is necessary and the Missile(s) will detonate during the appropriate Phase.

TORPEDOES

Torpedoes may be armed with Nuclear or Matter/Antimatter warheads. Such Torps may not be "Dodged". The normal Torpedo OB entry on the Torpedo Chart (see Section 4.4) is not used in favor of the warhead attack procedure presented above.

As an alternate firing method, a Gunner can specify a certain Location within range, which is presently unoccupied, as the target of a Torpedo. No Lock-on roll is necessary and the Torpedo will detonate upon entering the Location (though any Combat Rolls would be made during the appropriate Phase).

HARMFUL RADIATION

Important (Player Character and Non-player Character) occupants of a construct which takes a critical hit from a Nuclear detonation should each take a Radiation Critical of the same severity to determine if they suffer significant ill secondary effects from the blast.

If the construct has Radiation Shielding and the game is being played in conjunction with *Space Master: The RPG*, characters can make a RR versus the Radiation attack (modified by the Radiation Shielding bonus) to avoid the blast's harmful effects.

8.6

OPTIONAL PAYLOAD PALLET ITEMS

Besides Torpedoes, players may mount a number of additional items on their craft's Payload Pallets. The only restriction is that the Mk.# of the item to be loaded not exceed the Mk# of the Payload Pallet in question.

MINES

A Space Mine is a passive warhead container which can be dropped by a Payload Pallet at any time during the course of a vessel's move when its Acquired Momentum is zero (0). Mark the Location of a Mine with a Mine Unit. It will be stationary for the duration of a scenario and will immediately detonate when an enemy vessel enters its Location (hex) via Drift or MT expenditure. In this case, suspend the Movement Phase and make a Combat Roll(s) against the affected vessel(s).

Mines can have either Explosive, Nuclear, or M/A warheads. They are AT(DB): 21(0) and take 1 Hit to Destroy. If the warhead is Explosive, the Offensive Bonus for the Combat Roll is equal to their Mk.#, and the defender gets his full DB. If Nuclear or M/A, the Offensive Bonus is equal to the Mk.# of the Mine plus the Blast Radius modifier found on the attack chart.

The cost of Mines can be found in Section 9.11, the *Starcraft Cost Summary*.

EXPLOSIVE WARHEAD MISSILE PACKS

Standardized Missile Launchers can be loaded onto a Payload Pallet. When so loaded, these "Missile Packs" can each have a Fixed Covered Arc (or Firing Cone) facing in any one direction chosen by the controlling player before the start of the game. The size of the Launcher's magazine determines the minimum required Mk.# of the carrying Payload Pallet. Consult the following chart:

Explosive Warhead Missile Pack	Minimum Required Payload Pallet Mk.#
5-Pack	Mk.10
10-Pack	Mk.20
25-Pack	Mk.30
50-Pack	Mk.40
100-Pack	Mk.50

All normal Missile Launcher rules apply to Missile Packs, including Gunner Lock-ons and multiple Missile firings. Players should also note that these added Missile Launchers will increase the required Targeting Program in their computer, and so possibly reduce the available processing space for other Programs. The cost of Missile Packs can be found in Section 9.11, the *Starcraft Cost Summary*.

PODS

Pods are utility containers, each of which performs a specific function. The cost of all the Pods described below can be found in Section 9.11, the *Starcraft Cost Summary*.

Electronic Warfare Pods: EW Pods enhance a vessel's existing EW bonus (not Rating) in the following manner. Every multiple of Mk.10 worth of EW Pods aboard a vessel's Payload Pallets adds +1 to that vessel's EW value (i.e., divide the total of the Mk.#s by 10 then round off). The bonus imparted by EW Pods cannot exceed the present inherent EW bonus of the vessel.

Example: *Frigate A has an inherent EW bonus of 30. Two Mk.50 EW Pods are loaded up, increasing the Frigate's effective EW to a total of 40 (2 x Mk.50 = 100, or +10 to EW). The Frigate's effective EW value could be increased to 60, but this would require a cumulative EW Pod Mk.# total of 300 — in any combination.*

Sensor Pods: Sensor Pods enhance a vessel's existing Sensor bonus (not Rating or Effective Range). The enhancement calculation and limit is exactly the same as that found above for EW Pods.

Example: *Frigate A has a Sensor bonus of 55. Three Mk.10 and two Mk.40 Sensor Pods are loaded up, increasing the Frigate's effective Sensor bonus to a total of 66 (3 x Mk.10 + 2 x Mk.40 = 110, or +11 to Sensor rolls). The Frigate's effective Sensor value could be increased to 110, but this would require a cumulative Sensor Pod Mk.# total of 550 — in any combination.*

Recon Pods: A Reconnaissance Pod is an abstracted information gathering device which GMs should use to help develop campaign scenarios involving stealth, spying or other subterfuge. Recon Pods have no tactical impact on a game of *Star Strike*, but Victory Conditions may specify that a vessel carrying an active Recon Pod spend a certain number of Rounds within range of a certain Location so that the recording devices within the Pod can complete their task, etc. The effective range of a Recon Pod is one hex/km per Mk.# of the Pod. Separate Recon Pods may not add their Mk.#'s together to increase range.

Cargo Pods: Cargo Pods are simple, environmentally secure containers. The cumet capacity of a Cargo Pad equals its Mk.# x 5. Cargo in a Pod is not accessible from the carrying vessel's interior.

8.7

OPTIONAL STARCRAFT SYSTEMS

Experienced players should feel free to alter some of the formulae in the *Starcraft Construction System* (Section 9.0) to customize vessels even further. Some examples would be to reduce the volume of Translight Drives by a factor of 10, but increase their cost by a factor of 100. Halve the EW bonus but decrease the cost by a factor of 5. Increase Computer volume fifty-fold but only make them two thirds as expensive.

This sort of juggling will introduce differences between vessels of different cultures or technological levels. Always keep in mind, though, that an advantage in one sense (decreased volume or cost) should be balanced by a disadvantage (increased volume or cost, or a reduction in performance) unless a leap in technology is being represented.

SUBLIGHT DRIVE MODIFICATION

The installation of a Sublight Drive normally entails two functions: the Maximum Sublight Acceleration unit (Disengagement Engine) and the Maneuvering Thruster. The MSA unit can be forfeited with an attendant reduction in Sublight Drive Volume. If using this option, the Sublight Drive Volume is calculated in the following manner:

Small Starcraft [v5] =
([v2] x 0.01 x Rating)

Medium Starcraft [v5] =
([v2] x 0.02 x Rating)

Large Starcraft [v5] =
([v2] x 0.04 x Rating)

Super Large Starcraft [v5] =
([v2] x 0.10 x Rating)

Cost is unaffected.

The consequence of such a modification should be apparent: the vessel will not be able to Disengage from a battle or effectively undertake interplanetary travel. However, for point defense fighters, the savings in volume may be significant.

Note: *The 50 ton Ferret SMAC Fighter presented elsewhere in this rulebook uses this optional construction rule.*
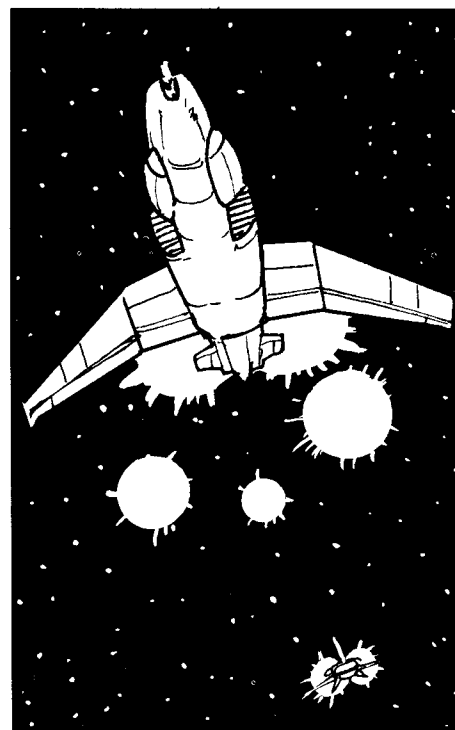
OPTIONAL UNIT MARKERS

The 1/2" x 1/2" generic starcraft counters found on the Utility Marker sheet may be used on the larger or smaller hex grid for the following reasons:

- If a larger effective playing surface is required, Medium and larger vessels can be represented on the smaller hex grid.

- If players wish to conceal the true identity of their starcraft and/or they are cloaked.

8.9

OPTIONAL NATURAL HAZARDS

Space is full of a lot of... space. However, players may introduce a few natural hazards to spice up their game.

ASTEROIDS

If a scenario takes place in an asteroid belt, these chunks of rock, ice and ore should be represented on the Map. It will be assumed that only asteroid clusters, or particularly large sub-planetoids will pose a serious threat to combatants, and it is these that require Asteroid Markers on the playing surface. They can be placed randomly (close your eyes and toss them on the Map), or by scenario designations.

If the Advanced Game is being played, the altitudes of the asteroids need not be recorded. When a starcraft enters an asteroid hex, roll 1D10: if 1-5, hazardous asteroids exist in that Location; if 6-10, no threat exists.

Asteroid Markers move at a rate of 1 hex(km) per Round. They should all be moved in the same direction for the duration of the scenario. If this direction need be randomized, roll 1D6 and consult the Map compass. Move asteroids at the end of the Movement Phase after all vessels have had an opportunity to move. If such movement causes an asteroid to move into a vessel's hex, there is no detrimental effect.

Upon entering an asteroid hex during the Movement, a vessel is forced to make a Maneuver Roll to avoid taking damage:

1) Make an Open-ended Roll

2) Add the vessel's N-Space Pilot bonus

3) Subtract 5 for each point of Acquired Momentum the vessel has.

4) Add any Damage/Casualty Modifiers.

If the Modified Roll is over 100 (101+), an asteroid collision is avoided. Otherwise, an asteroid collision occurs.

ASTEROID COLLISION CHART		
Vessel's Acquired Momentum	Maximum Damage Threshold	Combat Roll OB
1	Mk.10	10
2	Mk.20	20
3	Mk.30	30
4	Mk.40	40
5	Mk.50	50
6	Mk.50 with x2 Concussion Hits	60
7	Mk.50 with x3 Concussion Hits	70
8	Mk.50 with x4 Concussion Hits	80
9	Mk.50 with x5 Concussion Hits	90
10+	Mk.50 with x6 Concussion Hits	100

Modified Roll =

Open-ended Roll
+ N-Space Pilot bonus
- 5/point of Acquired Momentum
+ Damage/Casualty Modifiers

If an asteroid collision occurs, immediately roll a Projectile (19.1) Combat Roll against the vessel using the following guidelines:

- The Mk.# threshold and OB for the attack is based upon the vessel's Acquired Momentum when it enters the asteroid's Location. Consult the *Asteroid Collision Chart*.

- The DB of the defender incorporates all normal factors except the vessel's Electronic Warfare value.

GRAVITY FIELD

If combatants are fighting a scenario close to a planetary or stellar body, the gravity field of that body will cause all Units to drift toward it at differing rates. The closer a vessel is to the body, the faster it will drift. In game terms, players should select the direction of the body and the Drift Zones. Vessels in Drift Zone 0 will not Drift. Vessels in Drift Zone 1 will drift 1 hex(km) per Round. Those in Drift Zone 2 will drift 2 hexes(km) per Round. Drift Zone 3; 3 hexes(km) per Round, and so on. These selections are arbitrary, but each Drift Zone should be about 10-50 hexes(km) deep.

Gravity Field Drift occurs just after normal Drift. After all vessels with Acquired Momentum drift in accordance with the Standard Game rules, they drift again based upon the Drift Zone they occupy at the start of this special Drift Phase.

Players may specify a certain altitude level or Map edge as indicating the surface of a moon, planet or star. Any Drift or Movement Phase collision with such a body will result in the immediate destruction of the vessel.
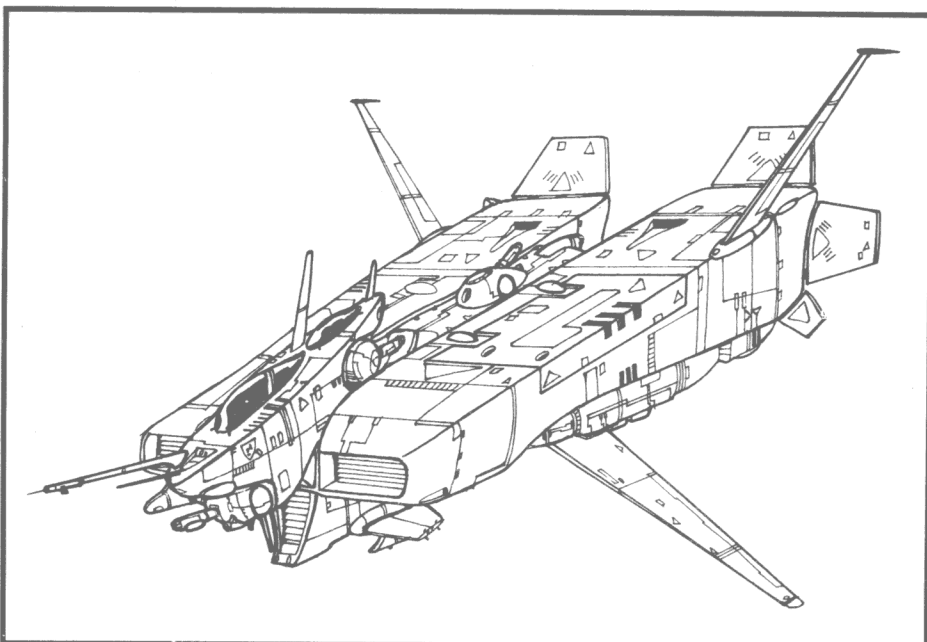
8.10
OPTIONAL FINAL ORIENTATION PHASE ACTIVITIES

The optional EW rules introduce three new Orientation Phase activities. Though described more thoroughly in Section 8.1, these options are summarized again here.

EW STRIPPING

To perform an EW Strip of an opponent, the following conditions must be met:

• The target(s) must be within a number of hexes/km not to exceed the attacker's EW Rating.

• Each target must have an EW value less than that of the attacking vessel.

• The sum total of all target's masses may not exceed the attacking vessel's mass.

• The attacking vessel must make a EW Stripping Roll against each target.

If the Modified Roll is over 100 (101+), the EW Stripping attempt is successful. If successful, the attacker and target vessel have their EW values reduced during the next Round by the amount the attacker committed to the EW Strip. If unsuccessful, only the attacker's EW value is lowered by the amount he committed to the EW Strip.

Modified Roll =

Open-ended Roll
+ EW skill value of the attacker
+ Damage/Casualty Modifiers

JAM TORPEDOES

If the modified roll is over 100 (101+), the Torpedo subjected to the jamming attempt immediately detonates. If the Torpedo's warhead is Nuclear or Matter/Antimatter, resolve the blast against any eligible targets.

Modified Roll =

Open-ended Roll
+ EW skill factor of the target vessel's operator
+ Portion of EW value committed to the jam
- Torpedo's EW value
+ Damage/Casualty Modifiers

JAM COMMUNICATIONS

If the Modified Roll is over 100 (101+), the jamming attempt is successful. Successful jamming reduces the target's effective Microfreq Rating by the jammer's EW value.

Modified Roll =

Open-ended Roll
+ Jammer's EW operator Skill Bonus
+ Jammer's EW value
- Target's EW value
+ Damage/Casualty Modifiers

8.11
OPTIONAL SIMULTANEOUS FIRING

If the sequential nature of the firing order seems inappropriate to you for light-speed and near light speed weapons, the following rules can be used. These rules assume that the players exercising this option are not involved in a Gunnery Duel.

When a vessel (called the Initial Firing Vessel) is about to fire one of its Weapon Mounts as described in Section 4.6 (under *Initiative and Multiple Mount Vessels*), any vessel that meets the following criterion may declare *simultaneous fire*:

• The vessel must have an undischarged Weapon Mount

• The vessel may **not** have already discharged a Weapon Mount during this pass through the Initiative Ranking (see Section 4.6)

• The vessel must have an Initiative Number that is within 10 points of the Initial Firing Vessel's IN

The results of all attacks made by Weapon Mounts that are *simultaneously fired* are resolved at the same time (i.e., simultaneously).

8.12
OPTIONAL BOMBARDMENT FIRING

All Energy & Projectile weapons may have their Firing Mechanisms set for "Bombardment Fire". Bombardment Fire has the following effects/restrictions:

• Increase the maximum range of such a weapon by a factor of 10.

• Only immobile, Disabled, or Drifting (i.e., expending no MTs) targets may be subjected to Bombardment Fire.

Using Bombardment Fire, an attacker may assault planetary installations, space stations, and "sitting ducks".

8.13
OPTIONAL AUTO CANNON SUSTAINED FIRE

Players may increase the damage potential of their Mk.6-30 (inclusive) Auto Cannons by using "Sustained Fire."

When using Sustained Fire for an attack, a Gunner expends more than one Combat Round's worth of ammunition (i.e., one *unit*) from the FM's magazine. Sustained Fire increases the attack's Concussion Hit result; the increase is determined by applying a damage multiplier.

PROCEDURE

1) Before making an Auto Cannon attack, a Gunner may declare that he is using the Sustained Fire option. He must then declare how many units (i.e., normal Combat Rounds) of ammunition he will use in the attack. All FMs involved must expend identical amounts of ammunition from their magazines.

2) Resolve the attack normally.

3) Multiply the Concussion Hits indicated by the attack result by the Sustained Fire Multiplier obtained from the Sustained Fire Chart.

When using Sustained Fire, the Unmodified Failure Number (usually 01-02 for Auto Cannons) is doubled.

If a Failure occurs during a Sustained Fire attack, the target receives no damage and only half of the declared ammunition usage is actually expended (round off).

SUSTAINED FIRE CHART	
Units of Auto Cannon Ammo Expended	Final Concussion Hit Damage Multiplier
2	x 2.00
3	x 2.50
4	x 3.00
5	x 3.50
6	x 4.00
7	x 4.25
8	x 4.50
9	x 4.75
10+	x 5.00

8.14
OPTIONAL CROSS GRAIN MOVEMENT AND FIRING

Players may find the 60 degree angles of the Map's hex grid too restrictive for the flow of movement. If this is the case, a further refinement is possible using 30 degree turn increments.

HEX-POINT FACING
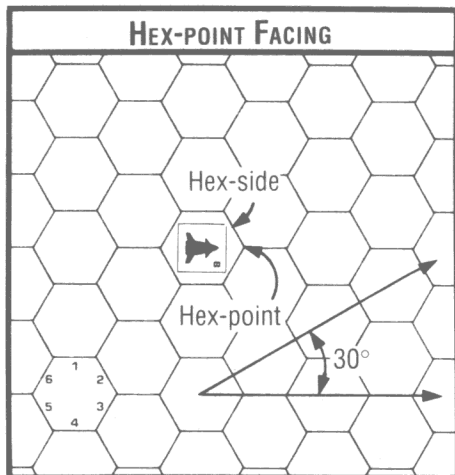
With this option, a turn can now be made from hex-side to hex-side (the normal situation), or from hex-side to hex-point and vice versa. A hex-point is the junction between hex-sides and a 30 degree angle exists between a side and a point. The MT cost for both types of turns is identical.

A vessel which expends MTs while facing a hex-point must move from hex to hex always facing the same direction, thus performing its move in a zig-zag fashion. Such zig-zag movement should always follow the same pattern of left-right-left-right and so on.

When facing a hex-point, the six facing-based Firing Arcs are also changed for each of the Weapon Mount types: Fixed, Flexible and Turret. Consult the graphic representations at the right to determine the new Firing Arcs of a vessel's weapons. When playing the Advanced Game, alter the Firing Cones in a similar manner.

Graphic representations of the Deflection Arcs of vessels facing a hex-point **and** Screen facings of such vessels are shown at the right.

CROSS GRAIN MOVEMENT AND FIRING DIAGRAMS

Cross Grain Movement

Turret Mount 180°

Flexible Mount 120°

Fixed Mount 60°

Cross Grain Covered Arcs

Rear Quarter
Front Quarter
Aft
Line Astern
Forward
Aft
Front Quarter
Rear Quarter

Cross Grain Deflection Arcs

Sides
Aft
Forward
Sides

Cross Grain Screen Orientation Areas
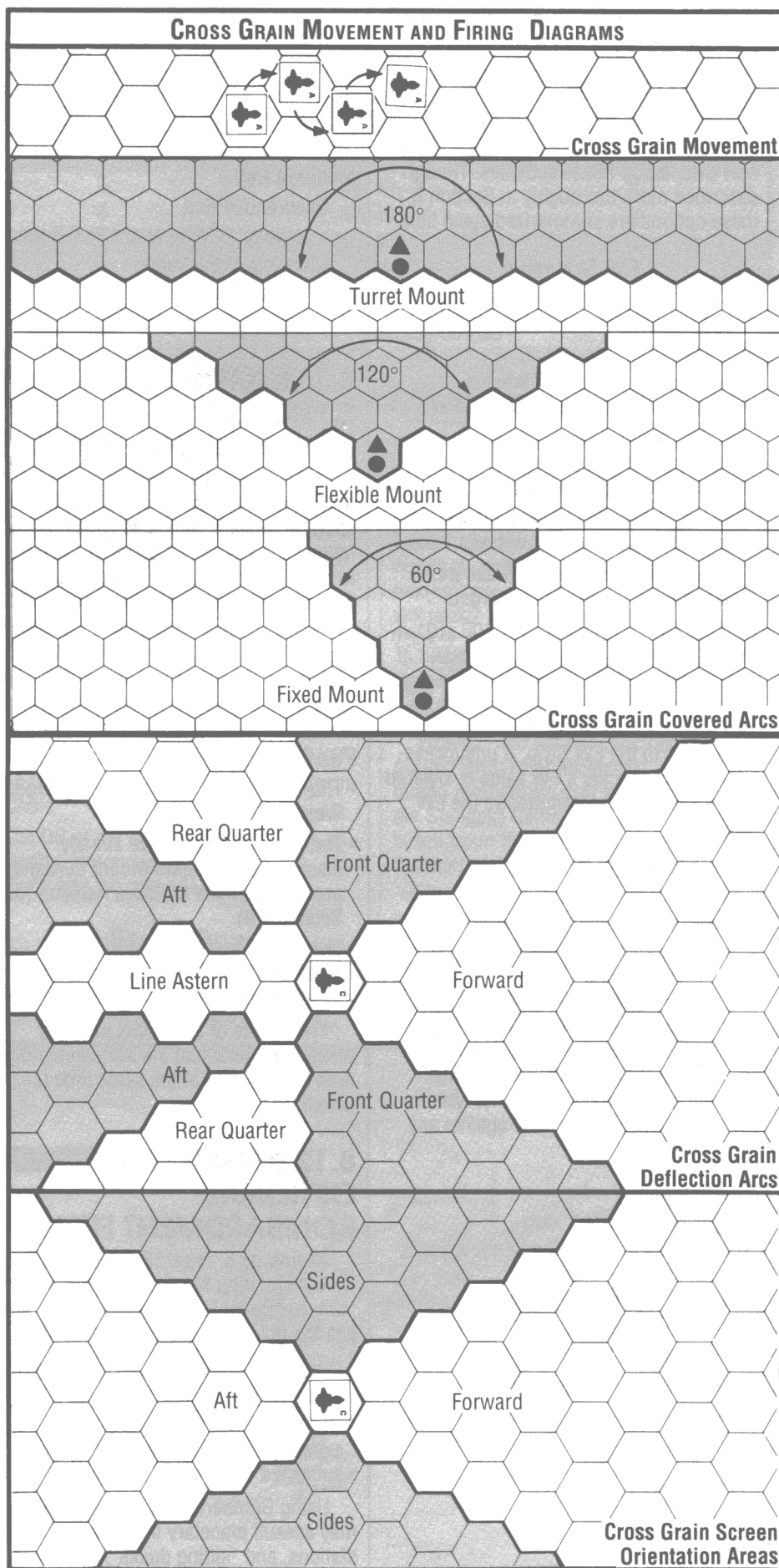
9.0
STARCRAFT CONSTRUCTION AND COST

What follows is a step-by-step procedure which will allow you to create your own customized starcraft. Start at the beginning, and go through each section in order, only skipping those you deem unnecessary.

SYSTEMS

A "System" is a set of equipment, an area of space, or a unit of material that is installed inside of a starcraft's hull. Most systems take up part of the starcraft's total interior space.

COSTS

There is a "Cost" associated with the starcraft's hull **and** with each System installed on the starcraft. All costs are given in terms of the Imperial Elmonit (E), which is the standard monetary unit in **Space Master**.

VOLUME (CUMETS)

The most important concept to keep in mind while creating a starcraft is "Volume".

- *Volume* is measured in *cubic meters*, (or just "*cumets*").

- Once you select a certain size of vessel, it will have a fixed volume (i.e., cumets) available for *Systems*.

- Each System you wish to install will occupy a certain number of cumets; thus taking up part of the total volume you have to work with.

- Designing a starcraft requires that you choose a group of desired and required Systems that will fit in the available volume.

CODES

For the sake of brevity, several of the values calculated during the construction process are given codes.

The "volume" code for a given Step is abbreviated [v#], where # is the Step number in which the value was derived (e.g., [v5] is the volume of the system selected in Step 5). In the same way, the "cost" code for a given step is [c#], where # is the Step number (e.g., [c5] is the cost of the system selected in Step 5).

[m1]	=	mass of the starcraft
[v#]	=	volume of System selected in Step #
[c#]	=	cost of System selected in Step #
#K	=	# x 1000 (i.e., K stands for one thousand)

9.1
MASS AND VOLUME

STEP 1: Select Starcraft's Mass in Tons

This is a subjective selection of the craft's volume (i.e., displacement) which must be made by the designer. As a general guide, the following chart may be useful.

Mass (in Tons)	Class
100-300	SMAC Fighter, 1-man Interplanetary vessel
100-1K	TMAC Fighter, Small Survey vessel, Yacht
1K-5K	MMAC Gunboat, Frigate, Scout, Lt Freighter
1K-10K	Support Cruiser, Destroyer, Small Liner
10K-50K	Line Cruiser, Hvy Freighter, Large Liner
10K-500K	Flag Cruiser, Carrier, Small Orbital Station
100K-1000K+	Dreadnought, Large Orbital Station

Note: *In general, starcraft fall into one of four mass categories. Vessels less than 1K tons are called "Small". Vessels of 1K-99,999 tons are "Medium". Those 100K-999,999 tons are "Large", while starcraft of 1000K+ tons are "Super Large". Such classifications pertain to critical hit determination and other game-specific applications.*

Mass (in tons)	Mass Category	Mass Category #
1-999	Small	1
1K-99,999	Medium	2
100K-999,999	Large	3
1000K+	Super Large	4

The Mass Category # will be a factor multiplied into certain formulae used during the construction procedure.

In future calculations, the numerical value of your starcraft's mass in tons will be referred to as **[m1]**.

STEP 2: Determine Starcraft's Volume

Total Starcraft Volume = [v2] = [m1] x (3 cubic meters)

In future calculations, the numerical value of your starcraft's volume will be referred to as **[v2]**.
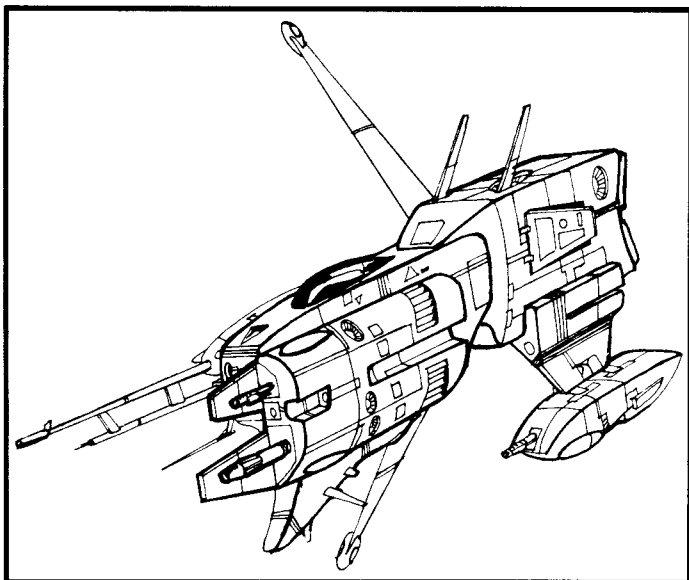
9.2
HULL

STEP 3: Select Hull Type and Volume

Select the foundation of your starcraft's hull from the following Construction Armor Types. Check the minimum hull requirements and the maximum hull limits listed in the charts that follow.

CAT	Description	Volume Factor	Cost Multiplier
21	Steel	0.02	1.0
22	Hardened Steel	0.02	1.5
23	Crysteel	0.02	3.0
24	Crystanium	0.02	5.5
25	Reinforced Crysteel	0.06	7.0
26	Crysteel Double Hull	0.10	8.5
27	Reinforced Crysteel Double Hull	0.16	10.0
28	Hardened Crystanium Double Hull	0.12	15.0
29	Ardinium	0.08	30.0
30	Ordium II	0.04	50.0

CAT	Minimum Hull Requirements
22	Minimum for vessels over 500 tons.
25	Minimum for vessels over 10K tons.
26	Minimum for vessels over 50K tons.
27	Minimum for vessels over 500K tons.

CAT	Maximum Hull Limits
24	Maximum for vessels under 500 tons.
25	Maximum for vessels under 1K tons.
26	Maximum for vessels under 100K tons.

All CAT hulls may be constructed of *superior alloys*, as opposed to the standards represented above. Superior alloys, when purchased, will have one of two effects. They will either increase the DB of the vessel **OR** decrease the volume occupied by the hull. Refer to the chart below for the superior alloy cost multiplier and effect.

Effect	Superior Alloy Cost Multiplier
+5 to DB **or** -10% from Hull Volume	2.0
+10 to DB **or** -20% from Hull Volume	4.0
+15 to DB **or** -40% from Hull Volume	8.0
+20 to DB **or** -60% from Hull Volume	16.0
+25 to DB **or** -80% from Hull Volume	32.0

Note: *To derive the Total Cost Multiplier, multiply the various cost multipliers for CAT and superior alloys together. Thus, a Crysteel Double Hull which was +5 to DB and -40% from Hull Volume would have a Total Cost Multiplier of 136 (8.5 x 2.0 x 8.0).*

Hull Volume = [v3] = ([v2] x Volume Factor)
   - (reduction due to any superior alloy purchased)

Hull Cost = [c3] = [m1] x 100 x Total Cost Multiplier

Volume left after Step 3 = [v2] − [v3]

STEP 4: Add Armor Belt

To a vessel's basic hull (represented by the CAT and any superior alloys purchased, as derived in Step 3), you may layer on an additional Armor Belt. An Armor Belt is normally composed of depleted uranium or similarly dense matter. It may also be made up of materials identical to that of the CAT. In any case, Armor Belts do not subtract from the volume available for installations inside of the vessel.

The cost of an Armor Belt is proportional to the mass of the vessel and the amount of protection to be imparted by the Belt. Armor Belt protection is stated in terms of both an increased DB, and Hit Point value, for the starcraft. The Hit Point increase is shown as a percentage increase; this is the percentage of the vessel's mass, [m1], which is added to the craft's Hit Point value.

Armor Belt Protection	Cost Multiplier
+5 to DB **and** +5% Hit Points	100
+10 to DB **and** +10% Hit Points	200
+15 to DB **and** +15% Hit Points	300
+20 to DB **and** +20% Hit Points	400
+25 to DB **and** +25% Hit Points	500

Note: *"+25" is the maximum Armor Belt which may be layered onto a starcraft.*

Armor Belt Volume = 0

Armor Belt Cost = [c4] = [m1] x Cost Multiplier

9.3 ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
DRIVES

STEP 5: Select Sublight Drive and Maneuvering Thrust (MT) Unit

The Sublight Drive unit is a fusion powered acceleration system for use in N-space. The larger the unit, the quicker the acceleration. This unit, when fully engaged, is inappropriate for combat maneuvers, therefore, all Sublight Drives incorporate a Maneuvering Thrust drive which operates at a proportionally reduced output. Choose a Sublight Drive rating from the chart below. The rating chosen will determine your starcraft's Maximum Sublight Acceleration and its Maneuvering Thrust.

Note: *The Sublight Drive Rating may exceed 30 (although this will be rare) **and** Ratings other than even tens may be installed (i.e., 32, 47, 51 may be used, not just 40, 50, 60, etc.). Each Rating above 30 adds 1 km/sec/sec to the Maximum Sublight Acceleration (MSA). Maneuvering Thrust equals one tenth of the MSA value, rounded off.*

VOLUME: The volume equation for the Sublight Drive and Maneuvering Thrust unit is based upon the *mass category* of the starcraft (see Section 9.1).

Sublight Drive Volume for Small starcraft =
   [v5] = ([v2] x 0.01 x Rating) + 50

Sublight Drive Volume for Medium starcraft =
   [v5] = ([v2] x 0.02 x Rating) + 250

Sublight Drive Volume for Large starcraft =
   [v5] = ([v2] x 0.04 x Rating) + 1250

Sublight Drive Volume for Super Large starcraft =
   [v5] = ([v2] x 0.10 x Rating) + 6250

Note: *The cost of the Sublight Drive and Maneuvering Thrust unit is **not** dependant upon the mass category of the vessel.*

Sublight Drive Cost = [c5] = ([m1] x 15 x Rating) + 30K

Volume left after Step 5 = (Volume left after Step 3) − [v5]

Rating	Maximum Sublight Acceleration (km/sec/sec)	Maneuvering Thrust (MT) (hexes/rnd)
1	10	1
2	20	2
3	30	3
4	40	4
5	50	5
6	60	6
7	70	7
8	80	8
9	90	9
10	100	10
11	105	11
12	110	11
13	115	12
14	120	12
15	125	13
16	130	13
17	135	14
18	140	14
19	145	15
20	150	15
21	152.5	15
22	155	16
23	157.5	16
24	160	16
25	162.5	16
26	165	17
27	167.5	17
28	170	17
29	172.5	17
30	175	18
40	185	19
50	195	20
60	205	21
70	215	22
80	225	23
90	235	24
100	245	25

MSA for Ratings of 31+ = 175 + (Rating − 30)

MT = MSA ÷ 10, [*round off*]

STEP 6: Select Translight Drive Unit

The Translight Drive unit is a self-contained Matter/Antimatter reaction system which displaces the starcraft from one N-space location to another through the medium of Hyperspace. The larger the unit, the further the drive is capable of displacing the vessel during each day of travel. Choose a Translight Drive rating from the chart below. The rating chosen will determine how many Light Years your starcraft will displace itself over each 25 hour period.

Rating	Translight Displacement (LY/day)
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	10.5
12	11
13	11.5
14	12
15	12.5
16	13
17	13.5
18	14
19	14.5
20	15
21	15.25
22	15.5
23	15.75
24	16
25	16.25
26	16.5
27	16.75
28	17
29	17.25
30	17.5
31+	17.5 + .1 x (Rating − 30)

Note: *The Translight Drive Rating may exceed 30 (although this will be rare). Each Rating above 30 adds .1 LY/day to the Translight Displacement.*

Translight Drive Volume = [v6] =
   ([v2] x 0.02 x Rating) + 50

Translight Drive Cost = [c6] =
   ([m1] x 30 x Rating) + 100K

Volume left after Step 6 = (Volume left after Step 5) − [v6]

STEP 7: Acquire Relative Inertial Field Generator

A RIF generator suspends the normal effects of relativity and inertia for all things within the special field it produces. A RIF's effects only encompass the vessel that it is installed in. All starcraft require RIF generators in order to withstand the incredible accelerations attainable with Sublight Drives. Functioning RIF generators are also necessary if a vessel is to engage its Translight Drive unit.

RIF Volume = [v7] = [v2] x 0.01

RIF Cost = [c7] = ([m1] x 100) + 10K

Volume left after Step 7 = (Volume left after Step 6) − [v7]

9.4 ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇
ARMAMENTS

STEP 8: Select Auto Cannons

Auto Cannons are Projectile armaments for starcraft. They differ from Energy weapons in that they have a limited ammunition supply, and the ammunition requires extra storage space (i.e., volume).

When purchasing Auto Cannons, you must buy:

• The Firing Mechanism, **and**

• The Weapon Mount, **and**

• The Magazine (i.e., ammunition store)

Add their volumes together to determine the total volume occupied by the Auto Cannon.

FIRING MECHANISMS (FM): Weapon size and deadliness are rated in terms of Mk. number. The higher the Mk.#, the more damage a weapon has the potential of doing. The volume occupied by the Firing Mechanism is dependant upon the Mk.# category of the weapon. There are five categories of weapons:

Category 1 (Mk's 6-10)
Category 2 (Mk's 11-20)
Category 3 (Mk's 21-30)
Category 4 (Mk's 31-40)
Category 5 (Mk's 41-50)

Volume of Auto Cannon Firing Mechanism =
   Mk.# x (Category #)

Cost of Auto Cannon Firing Mechanism = (Mk.# x 500) + 500

WEAPON MOUNTS: There are three possible Weapon Mounts for any given starcraft weapon. Each is assigned a Category number. The positioning of these mounts on the vessel is left to the designer's discretion.

Category 1: Fixed Mount (a 60° cone field of fire).

Category 2: Flexible Mount (a 120° cone field of fire).

Category 3: Turret Mount (a complete hemisphere of fire).

   Note: *Multiple Firing Mechanisms, of the same type and Mk.#, may be installed in the same Weapon Mount. To determine the Volume of the Weapon Mount, simply add the volumes of the various Firing Mechanisms together and multiply by their Weapon Mount Category #.*

Volume of Weapon Mount =
(Volume of weapon's Firing Mechanism)
x (Weapon Mount's Category #)

Cost of Weapon Mount =
(Weapon Mount's Category #) x 5000

MAGAZINES: Auto Cannons require a Magazine of ammunition to discharge. Magazines must be purchased separately for each Firing Mechanism (FM).

Volume of Auto Cannon Magazine =
FM Mk.# x 0.5
x (# of Combat Rounds Auto Cannon can fire before depleted)

Cost of Auto Cannon Magazine =
(FM Mk.# x 50)
+ (# of Combat Rounds Auto Cannon can be fired x 5)

AMMUNITION: Auto Cannons require ammunition. The ammunition cost must be kept separately. Ammunition purchase is limited by Magazine capacity.

Cost of Auto Cannon ammunition =
(FM Mk.# x 25) *per Combat Round of fire*

TOTALS FOR AUTO CANNONS: To determine the total volume occupied by your Auto Cannon weapons, use the following formula:

Note: *[c8] does not include the cost of Auto Cannon ammunition.*

Auto Cannon Volume = [v8] =
The total of (Firing Mechanism Volume + Weapon Mount Volume + magazine Volume) *for all Auto Cannons purchased*

Auto Cannon Cost = [c8] =
The total of (Firing Mechanism Cost + Weapon Mount Cost + magazine Cost) *for all Auto Cannons purchased*

Volume left after Step 8 = (Volume left after Step 7) − [v8]

STEP 9: Select Energy Cannons
There are five different Energy Cannons which you may purchase for your vessel:

Laser Cannon
Blast Cannon
Disruptor Cannon
Ion Cannon
Plasma Cannon

Although these weapons differ in the way they function and deliver damage, the process for integrating them into your starcraft is the same. All Energy Cannons are powered by the vessel's fusion reactor.

When purchasing Energy Cannons, you must buy:

• The Firing Mechanism, **and**
• The Weapon Mount

Add their volumes together to determine the total volume occupied by the Energy Cannon.

FIRING MECHANISM (FM): Weapon size and deadliness is rated in terms of Mk. number. The higher the Mk.#, the more damage a weapon has the potential of doing. The volume occupied by the Firing Mechanism (FM) is dependant upon the Mk.# category of the weapon. There are five categories of weapons:

Category 1 (Mk's 6-10)
Category 2 (Mk's 11-20)
Category 3 (Mk's 21-30)
Category 4 (Mk's 31-40)
Category 5 (Mk's 41-50)

Volume of Laser FM = Mk.# x (Category #)

Cost of Laser FM = ((Mk.# x 600) + 2000) x (Category #)

Volume of Blast FM = Mk.# x (Category #) x 2

Cost of Blast FM = ((Mk.# x 500) + 2000) x (Category #)

Volume of Disruptor FM = Mk.# x (Category #) x 4

Cost of Disruptor FM = ((Mk.# x 700) + 10K) x (Category #)

Volume of Ion FM = Mk.# x (Category #) x 10

Cost of Ion FM = ((Mk.# x 800) + 50K) x (Category #)

Volume of Plasma FM = Mk.# x (Category #) x 20

Cost of Plasma FM = ((Mk.# x 2000) + 200K) x (Category #)

WEAPON MOUNTS: There are three possible Weapon Mounts for any given starcraft weapon. Each is assigned a Category number. The positioning of these mounts on the vessel is left to the designer's discretion.

Category 1: Fixed Mount (a 60° cone field of fire).
Category 2: Flexible Mount (a 120° cone field of fire).
Category 3: Turret Mount (a complete hemisphere of fire).

Note: *Multiple Firing Mechanisms, of the same type and Mk.#, may be installed in the same Weapon Mount. To determine the Volume of the Weapon Mount, simply add the volumes of the various firing mechanisms together and multiply by their Weapon Mount Category #.*

Volume of Weapon Mount =
(Volume of weapon's Firing Mechanism)
x (Weapon Mount's Category #)

Cost of Weapon Mount =
(Weapon Mount's Category #) x 5000

TOTALS FOR ENERGY CANNONS: To determine the total volume occupied by your Energy Cannon weapons, use the following formula:

Energy Cannon Volume = [v9] =
The total of (Firing Mechanism Volume + Weapon Mount Volume) *for all Energy Cannons purchased*

Energy Cannon Cost = [c9] =
The total of (Firing Mechanism Cost + Weapon Mount Cost) *for all Energy Cannons purchased*

Volume left after Step 9 = (Volume left after Step 8) − [v9]

STEP 10: Select Missile Launchers

Missiles are fast attack delivery systems for certain types of warheads. Missiles are restricted in that they are only available in sizes from Mk.#'s 6 through 10 inclusive. Any given Missile Launcher will only be able to fire one specific Mk.# of missile, regardless of the warhead carried.

To purchase a Missile Launcher, you must buy:

• The Weapon Mount (hereafter referred to as the *Launcher*), **and**

• The missile storage magazine

Add their volumes together to determine the total volume occupied by the Auto Cannon.

LAUNCHERS: There are three possible Launchers for starcraft missiles. Each is assigned a Category number. The positioning of these Launchers on the vessel is left to the designer's discretion. Missiles may only be fired at targets which lie within the covered arc (i.e., field of fire) of their Launcher.

Category 1: Fixed Mount (a 60° cone field of fire).

Category 2: Flexible Mount (a 120° cone field of fire).

Category 3: Turret Mount (a complete hemisphere of fire).

Volume of Launcher = (Missile Mk.#) x (Launcher Category #)

Cost of Launcher = (Launcher Category #) x 5000

MAGAZINES: Missile launchers require a magazine of missiles to discharge. Magazines must be purchased separately for each Missile Launcher.

Volume of Launcher magazine =
(Missile Mk.#) x 0.5 x (number of missiles stored)

Cost of Launcher magazine =
(Missile Mk.# x 100) + (number of missiles stored x 10)

MISSILES: Launchers require missiles in order to fire. The cost of the missiles must be kept separately. The number of missiles is limited by the Magazine capacity.

Cost of Explosive Warhead Missile = Mk.# x 1000

Cost of Nuclear Warhead Missile = Mk.# x 10K

TOTALS FOR MISSILE LAUNCHERS: To determine the total Volume occupied by your Missile Launchers, use the following formula:

Note: *[c10] does not include the cost of missiles.*

Missile Launcher Volume = [v10] =
The total of (Launcher Volume + magazine Volume) *for all Launchers purchased*

Missile Launcher Cost = [c10] =
The total of (Launcher Cost + magazine Cost) *for all Launchers purchased*

Volume left after Step 10 = (Volume left after Step 9) − [v10]

STEP 11: Select Heads Up Displays

A Heads Up Display (hereafter referred to as a HUD) is a targeting enhancement mechanism which increases the deadliness of many different weapons. A separate HUD may be purchased for each individual Weapon Mount and/or Missile Launcher carried by your vessel.

HUD bonuses can affect Auto, Laser, Blast, Disruptor, Ion, and Plasma Cannon fire, as well as missiles fired from Missile Launchers.

HUDs occupy negligible volume within a starcraft. Their cost is dependant upon their quality. Consult the following chart:

HUD Bonus to Weapon Mount or Missile Launcher	Cost per HUD unit installed
+5 to OB	10K
+10 to OB	20K
+15 to OB	60K
+20 to OB	240K
+25 to OB	1200K

Note: *It should be clear to the vessel's designer that a HUD's OB value is only added to attacks made from that specific Weapon Mount or Missile Launcher, and then only if the weapon is manned by an individual Gunner (i.e., it is not being fired by a central fire control program).*

HUD Volume = 0

HUD Cost = [c11] = The sum total Cost of all HUDs purchased

STEP 12: Select Payload Pallets

Payload Pallets are multi-use platforms which are able to house a variety of different and interchangeable loads. Payload Pallets are capable of carrying Torpedoes, Mines, EW pods, storage containers, or any number of other specialized devices. The only restriction is that the Mk.# of the item carried may not exceed the Mk.# of the Payload Pallet. Therefore, the Mk.# of any Payload Pallets you purchase will be the limiting factor of the size of what you may carry on them.

PAYLOAD PALLETS:
Volume of Payload Pallet = Mk.#

Cost of Payload Pallet = Mk.# x 10

TOTALS FOR PAYLOAD PALLETS: To determine the total Volume occupied by your Payload Pallet, use the following formula:

Note: *[c12] does not include the Cost of the various loads available.*

Payload Pallet Volume = [v12] =
The sum total Volume of all Payload Pallets purchased

Payload Pallet Cost = [c12] =
The sum total Cost of all Payload Pallets purchased

Volume left after Step 12 =
(Volume left after Step 10) − [v12]

STEP 13: Select Tractor Beam Generators

Although not specifically armaments per se, Tractor Beams may be used in combat situations, so their purchase is included at this point. Tractor Beams use magneto-gravitic projections to drag objects toward the generating mechanism, or to push them away. The higher the Mk.# of any given Tractor Beam, the more powerful it is. A Tractor Beam may engage only one object at a time, so you may wish to purchase several for your vessel.

Volume of Tractor Beam Generator = Mk.# x 50 cumets

Cost of Tractor Beam Generator = Mk.# x 5000

Total Tractor Beam Generator Volume = [v13] =
   The sum total Volume of all Tractor Beam Generators purchased

Total Tractor Beam Generator Cost = [c13] =
   The sum total Cost of all Tractor Beam Generators purchased

Volume left after Step 13 = Volume left after Step 12 − [v13]

9.5 ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮
ELECTRO/NEUTRINO SYSTEMS

STEP 14: Select Microfrequency Communications Rig

Microfreq Rigs are standard sub-space transmission and reception units. Broadcasting at light speed, they are impractical for interstellar communications, but are excellent for general intrasystem messages. The higher the Mk.# of the Rig, the more sophisticated it is. Each Mk.# represents the Rig's ability to simultaneously process (receive and record, or transmit) multiple messages (one per Mk.#). All transmissions are audio or image facsimile only.

Microfreq Rig Volume = [v14] = (Mk.# x 0.1 cumets) + 5

Microfreq Rig Cost = [c14] = Mk.# x 100

Volume left after Step 14 =
   (Volume left after Step 13) − [v14]

STEP 15: Select Tight Beam Communications Rig

Tight Beam Rigs use a laser to send information. An integral reception dish allows the Rig to also receive similar transmissions. Tight Beam communications are very secure due to their nature, but are also restricted in range. Tight Beam Rigs may transmit in audio, visual, and/or visual facsimile mode. The Mk.# of the Rig determines the maximum effective transmission range. The Mk.# equals range in Light Seconds (1 LS = 300K km).

Tight Beam Rig Volume = [v15] =
   (Mk.# x 1.0 cumets) + 20

Tight Beam Rig Cost = [c15] = Mk.# x 20K

Volume left after Step 15 =
   (Volume left after Step 14) − [v15]

STEP 16: Select Tachyon Beam Dictor Communications Rig

The TBD is an instantaneous interstellar communications system. Transmissions may only be made in the form of visual facsimile. The Mk.# of the Rig equals effective transmission and reception range in Light Years.

Note: *Regardless of the Mk.# of the Rig, TBD communications beyond 50 LY are extremely difficult due to technological limitations.*

Tachyon Beam Dictor Volume = [v16] =
   (Mk.# x 500) + 10K cumets

Tachyon Beam Dictor Cost = [c16] = Mk.# x 500K

Volume left after Step 16 =
   (Volume left after Step 15) − [v16]

STEP 17: Select Sensors

Sensors are near-instantaneous information gathering units used for starcraft, and stellar system, analysis. A Sensor's Rating indicates the limit of its effective Long Range analysis abilities, as well as providing a bonus to analysis attempts. Select a Sensor unit rating for your starcraft from the *Sensor / EW / Screens / Radiation Shielding Chart* (page 58).

Note: *Sensor Ratings may exceed 30. Each Rating above 30 adds .5 to the Bonus and .01 LY to the Effective Range. Sensors have a maximum Rating of 100 due to technological limitations.*

Sensor Volume = [v17] =
   (Rating x Rating x 3 cumets) + 20

Sensor Cost = [c17] = Rating x 2000

Volume left after Step 17 =
   (Volume left after Step 16) − [v17]

STEP 18: Select Electronic Warfare

EW has a myriad of uses, but the main consideration for starcraft designers is that it adds its bonus to the defense of a vessel in combat situations. Select the Rating of your vessel's EW from the *Sensor / EW / Screens / Radiation Shielding Chart* (page 58).

Note: *EW Ratings may exceed 30. Each Rating above 30 adds .5 to the EW Bonus.*

Electronic Warfare Volume = [v18] = [v2] x 0.01 x Rating

Electronic Warfare Cost = [c18] = [m1] x 30 x Rating

Volume left after Step 18 =
   (Volume left after Step 17) − [v18]

STEP 19: Select Deflector Screen Generator

Screens add to a starcraft's Defensive Bonus by generating a protective energy barrier around the vessel which is effective against both projectile and energy weapon attacks. Also, Rating 1 Screens are the minimum required for atmospheric flight. Select a Screen Rating for your vessel from the *Sensor / EW / Screens / Radiation Shielding Chart*.

Note: *Screen Ratings may exceed 30. Each Rating above 30 adds .5 to the Screen Bonus.*

Deflector Screen Generator Volume = [v19] =
[v2] x 0.03 x Rating

Deflector Screen Generator Cost = [c19] =
[m1] x 20 x Rating

Volume left after Step 19 =
(Volume left after Step 18) − [v19]

SENSOR / EW / SCREENS / RADIATION SHIELDING CHART

Rating	Sensor / EW / Screens / Radiation Shielding Bonus	Effective Sensor Range (LY)
1	5	0.1
2	10	0.2
3	15	0.3
4	20	0.4
5	25	0.5
6	30	0.6
7	35	0.7
8	40	0.8
9	45	0.9
10	50	1.0
11	52	1.05
12	54	1.1
13	56	1.15
14	58	1.2
15	60	1.25
16	62	1.3
17	64	1.35
18	66	1.4
19	68	1.45
20	70	1.5
21	71	1.525
22	72	1.55
23	73	1.575
24	74	1.6
25	75	1.625
26	76	1.65
27	77	1.675
28	78	1.7
29	79	1.725
30	80	1.75
31+	80 + .5 x (Rating − 30)	1.75 + .01 x (Rating − 30)

POWER

STEP 20: Select Fusion Reactor

The fusion reactor aboard your starcraft will be the unit which powers all of the vessel's systems. Without power, your craft will be reduced to an expensive piece of scrap metal. Your reactor must be large enough to power-up all of the vessel's major systems (except the Translight Drive) at once.

To begin the calculation of the reactor's size, first add the Rating numbers of the following Systems: Sublight Drive, Electronic Warfare, and Deflector Screen Generator. Next, add in the Mk.#'s of all Laser Cannons, Blast Cannons, Disruptor Cannons, and Ion Cannons. Also add in 2x the Mk.#'s of any Plasma Cannons **and** 5x the Mk.#'s of any Tractor Beams. Finally, add [m1] x 0.01. The sum total of all these figures will give you the Rating number of the vessel's Reactor. The following formula summarizes this calculation:

Fusion Reactor Rating =

Sublight Drive Rating

+ Electronic Warfare Rating

+ Screen Generator Rating

+ all Laser Cannon Mk.#'s

+ all Blast Cannon Mk.#'s

+ all Disruptor Cannon Mk.#'s

+ all Ion Cannon Mk.#'s

+ all Plasma Cannon Mk.#'s x 2

+ all Tractor Beam Mk.#'s x 5

+ ([m1] x 0.01)

FUSION REACTOR VOLUME: To calculate Fusion Reactor Volume, you will need to factor in your starcraft's *Mass Category #* (see Section 9.1).

Fusion Reactor Volume = [v20] =
Rating x (Category #) x (Category #) x (1 cumet)

Fusion Reactor Cost = [c20] =
(Rating x 500 x (Category #) x (Category #)) + 50K

Volume left after Step 20 = (Volume left after Step 19) − [v20]
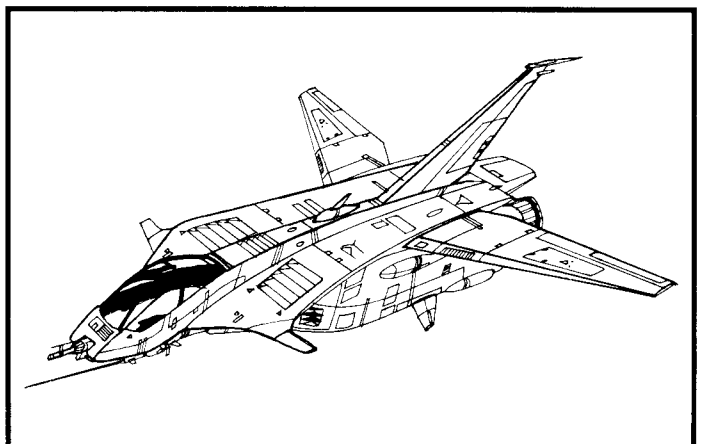
STEP 21: Select Fusion Reactor Fuel Storage Unit

All that your Fusion Reactor requires is a supply of light atoms (like hydrogen). These light atoms can be derived from two sources; either common interstellar matter, or a volume of water. Interstellar matter can be "swept up" by the electromagnetic ramscoop which is assumed to be automatically installed on your vessel. Water can be acquired from any conventional source; the light nuclei being separated out through an integral electrolysis unit.

Each Rating Level of the Fusion Reactor Fuel Storage Unit will allow your vessel to operate under normal conditions for 10 days before any refueling is required (e.g., Rating 1 = 10 days operation, Rating 2 = 20 days operation etc.).

Note: *The electromagnetic ramscoop will refuel one Rating Level of the Fuel Storage unit for every 25 hour period spent traveling through N-space. If water is required as a secondary Fusion fuel source, a volume of water equal to ([v21] x 10) will completely fill the Storage Unit.*

Fuel Storage Unit Volume = **[v21]** = [v20] x 0.01 x Rating

Fuel Storage Unit Cost = **[c21]** =
(Reactor Rating + Fuel Storage Unit Rating) x 10

Volume left after Step 21 = (Volume left after Step 20) – [v21]

STEP 22: Purchase Matter/Antimatter Fuel

Your starcraft's Translight Drive is a self-contained unit that does not require power from the vessel's Fusion Reactor. However, the Translight Drive does need Matter/Antimatter fuel to power it. Matter/Antimatter fuel is a synthetically produced material called Andrium, and comes in the form of sub-atomic antimatter particles held within a normal atomic "Strong Force" field. Thus, Matter/Antimatter fuel occupies negligible volume and will actually be contained within the Translight Drive unit. Any amount of Andrium may be carried within the Drive unit, but it must be purchased.

Each "Andrium Unit" will allow 1 LY of Translight Displacement. In other words, for every Light Year your vessel travels, 1 Andrium Unit will be consumed. Once all the Andrium that has been purchased is consumed, the starcraft may no longer enter, exist within, or travel through, Hyperspace.

Andrium is peculiar, in that it becomes unstable 100 days after it is produced. The antimatter decomposes into normal matter, and the Andrium atom breaks up into scattered sub-atomic particles. Therefore, Andrium fuel becomes useless 100 days after it is produced.

Matter/Antimatter Fuel Volume = 0

Matter/Antimatter Fuel Cost = **[c22]** =
Number of Andrium Units x 5000

9.7
CONTROL

STEP 23: Determine Control Points

Control Points are an artificial measure of the level or complexity of command which your ship will require to run smoothly and efficiently by way of Crew and Computer. The larger or more sophisticated the vessel, the more Control Points it will generate, and thus the larger the Crew size or Computer Mk.# needed.

The Control Point number of your starcraft helps determine the size of the Computer (Step 25) required to run the vessel. Crew selected in Step 24 will reduce the Control Point factor for Computer selection later on.

Note: *In the following formula sum all of the factors before taking the "Square Root", and then round the resultant number off to the nearest whole number.*

Control Point # =
Square Root of (([m1] x 0.01)

+ Sublight Drive rating

+ Translight Drive rating

+ total number of Weapon Mounts

+ total number of Missile Launchers

+ total number of Payload Pallets

+ total Mk.# of all Communication Rigs

+ Sensor Rating

+ EW Rating

+ Screen Rating)

STEP 24: Select Crew

The number of required crewmembers you select for your starcraft is left to your subjective judgement. But as a guideline, you will probably not need any more than the Control Point # derived in Step 23, though you are free to select more if desired. You are also free to select fewer required crewmembers than the Control Point #, as the deficit may be compensated for through the installation of a more sophisticated Computer in Step 25. Also, if your vessel has several weapons, you may want to have at least one crewmember for each Weapon Mount and Missile Launcher to avoid Central Fire Control penalties.

The size of your crew will affect certain volume requirements in later steps (e.g., Control Area, Crew Quarters, etc.).

If you are using **Space Master: The Role Playing Game**, you should allow for a good mix of Astronauts and Techs.
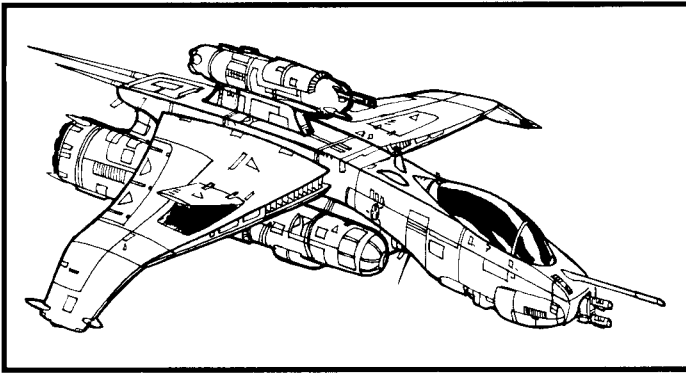
STEP 25: Select Main Computer

The Computer will be the most important control and information mechanism installed onboard your vessel. A formula follows which calculates the minimum Mk.# of Computer required by your starcraft. You are free to actually select a larger Computer, if you wish, as it would be more flexible and allow you to run more programs (see Section 10.0). Such a decision is subjective, and left to the designer's discretion.

Minimum Computer Mk.# = largest of the following:

20, **or**

(Control Point #) x 2, **or**

((Control Point #) − Crew) x 10

Before settling on your starcraft's actual Computer Mk.#, review the Computer Program listing in order to more accurately gauge your needs (see Section 10.0). As a guideline to designers, Computers with a Mk.# of greater than 500 should be unavailable due to technological constraints. If your starcraft requires a computer larger than Mk.500, go back to Step 24 and select more crewmembers to lighten the Control Point burden. If you insist upon installing a Computer larger than Mk.500, multiply the Volume required by 100 and the Cost by 1000.

Your Computer's Mk.# will set the limits of its operating parameters; see Section 10.1 for the definitions of these parameters. Your Computer will have:

• A number of "Processing Units" equal to its Mk.#
• A number of "Memory Units" equal to its Mk.# x 2
• A number of "Reserve Units" equal to its Mk.# x 10

Main Computer Volume = [v25] = Mk.# x 0.1 cumets

Main Computer Cost = [c25] = Mk.# x 1000

Volume left after Step 25 = Volume left after Step 21 − [v25]

STEP 26: Determine Crewmember Control Areas / Bridge

Control Areas are crewmember work stations. They may be combined together within the starcraft to create a "Bridge", or be scattered throughout the vessel, at the designer's whim.

To calculate the Control Area Volume, you will need to factor in your starcraft's mass Category # (see Section 9.1).

Control Area Volume = [v26] =
(# of Crewmembers) x 10 cumets x (Category #)

Cost = [c26] = (# of Crewmembers) x 5000 x (Category #)

Volume left after Step 26 = (Volume left after Step 25) − [v26]

9.8
ADDITIONAL FACILITIES

STEP 27: Determine Crew Quarters

This calculation encompasses sleeping and hygiene facilities. Crew Quarters must be purchased only if your starcraft will be operating alone for periods of greater than 50 hours at a time.

Crew Quarters Volume = [v27] =
(# of Crewmembers) x 10 cumets

Crew Quarters Cost = [c27] = (# of Crewmembers) x 500

Volume left after Step 27 = (Volume left after Step 26) − [v27]

STEP 28: Select Passenger Accommodations

Staterooms and Cryogenic Berths are accommodations for starcraft passengers who will be traveling for periods longer than 50 hours. Seating is all that is required for passengers who will be traveling for periods of 50 hours or less. Staterooms, though calculated on an individual being basis, may be combined to create multiple-being sleeping quarters.

Volume of First Class Staterooms =
(# of occupants) x 30 cumets

Cost of First Class Staterooms = (# of occupants) x 1000

Volume of Standard Staterooms =
(# of occupants) x 20 cumets

Cost of Standard Staterooms = (# of occupants) x 800

Volume of Low/Military Staterooms =
(# of occupants) x 10 cumets

Cost of Low/Military Staterooms = (# of occupants) x 500

Volume of Cryogenic Berths = (# of occupants) x 3 cumets

Cost of Cryogenic Berths = (# of occupants) x 1000

Volume of Seating = (# of occupants) x 3 cumets

Cost of Seating = (# of occupants) x 100

Total Passenger Accommodation Volume = [v28] =
The sum total Volume of all Accommodations purchased

Total Passenger Accommodation Cost = [c28] =
The sum total Cost of all Accommodations purchased

Volume left after Step 28 = (Volume left after Step 27) − [v28]

STEP 29: Determine Life Support

Every crewmember and passenger not in a Cryogenic Berth requires Life Support apparatus.

Life Support Volume = [v29] =
((# of Crew) + (# of Passengers)) x 10 cumets

Life Support Cost = [c29] =
((# of Crew) + (# of Passengers)) x 500

Volume left after Step 29 = (Volume left after Step 28) − [v29]

60

STEP 30: Determine Recreational Facilities

Recreational facilities are standard purchases for Stateroom Passengers.

Recreational Facility Volume = **[v30]** =
(# of Stateroom Passengers) x 5 cumets

Recreational Facility Cost = **[c30]** =
(# of Stateroom Passengers) x 100

Volume left after Step 30 = (Volume left after Step 29) – [v30]

STEP 31: Select Medical Dispensary

A Dispensary is a small medical facility required for cases involving First Aid. If a dispensary is selected as an installation, the minimum Volume requirement is given in the following formula:

Dispensary Volume = **[v31]** =
((# of Crew) + (# of Passengers)) x 1 cumet

Dispensary Cost = **[c31]** =
((# of Crew) + (# of Passengers)) x 200

Volume left after Step 31 = (Volume left after Step 30) – [v31]

STEP 32: Select Medical Sick Bay

A Sick Bay is an extensive medical facility which can accommodate surgical operations. Volume and Cost calculations are dependant upon how many patients the designer wishes the Sick Bay to be able to handle at the same time.

Sick Bay Volume = **[v32]** =
(Patient capacity x 25 cumets) + 100

Sick Bay Cost = **[c32]** = Patient capacity x 4000

Volume left after Step 32 = (Volume left after Step 31) – [v32]

STEP 33: Select Labs

Labs add a bonus, based upon Volume, to research work performed within them. Each Lab purchased must be devoted to a specific Scientific Skill (See ***Space Master: The Role Playing Game***). Each 10 cumets purchased adds a +1 bonus to a Research roll made while the scientist is using the Lab. (Lab bonus limited to a maximum of +50 or the Scientist's Skill Bonus, whichever is lower.)

Lab Volume = **[v33]** = Subjective selections by designer

Lab Cost = **[c33]** = 1K per cumet of Labs

Volume left after Step 33 = (Volume left after Step 32) – [v33]

STEP 34: Select Workshop

A workshop is a voluntary installation, but is required if space-borne repairs are to be made within the starcraft which require CIP (Cost In Parts) expenditures. A workshop may be stocked with abstractly handled "Parts" for use in CIP repairs, merely by spending the Elmonits. However, a Workshop may not be stocked with more "Parts" than its Volume x 2000 Elmonits.

Note: *Only one Workshop may be utilized for one major system repair at a time. You may therefore want to purchase multiple Workshops.*

Note: *[c34] does not include CIP "Parts" stocking.*

Minimum Workshop Volume (*if installed*) = **[v34]** =
[v2] x 0.03

Workshop Cost = **[c34]** = 100 per cumet of Workshop

Volume left after Step 34 = (Volume left after Step 33) – [v34]

STEP 35: Select Security Stations

Security Stations are personal weapon storage, armor storage, and security monitoring centers. They are required if your vessel carries military personnel and is installed with Military Staterooms.

Security Station Volume = **[v35]** =
(# of military personnel) x 2 cumets

Security Station Cost = **[c35]** =
(# of military personnel) x 50

Volume left after Step 35 = (Volume left after Step 34) – [v35]

STEP 36: Select Fighter Bays

If your starcraft is intended to carry small military vessels, proper maintenance and storage bays must be purchased.

Fighter Bay Volume = **[v36]** =
Total Volume of all Fighters carried x 5

Fighter Bay Cost = **[c36]** = 50 per cumet of Fighter Bay

Volume left after step 36 = (Volume left after Step 35) – [v36]

STEP 37: Select Shuttle/Vehicle Bays

If your vessel is intended to carry and operate small non-combat starcraft, or non-spaceworthy vehicles of any kind, proper maintenance and storage bays must be purchased.

Shuttle/Vehicle Bay Volume = **[v37]** =
Total Volume of all Shuttles/Vehicles carried x 3

Shuttle/Vehicle Bay Cost = **[c37]** =
20 per cumet of Shuttle/Vehicle Bay

Volume left after Step 37 = (Volume left after Step 36) – [v37]

STEP 38: Select Cargo Hold

Cargo Holds are simple containment areas. They are environmentally secure.

Cargo Hold Volume = **[v38]** = Designer's discretion

Cargo Hold Cost = **[c38]** = 5 per cumet of Cargo Hold

Volume left after Step 38 = (Volume left after Step 37) – [v38]

STEP 39: Select Atmospheric Streamlining

If you intend your starcraft to enter and operate within planetary atmospheres, the vessel will have to be atmospherically streamlined. This process only involves the Cost of molding the Hull.

Atmospheric Streamlining Volume = **[c39]** = 0

Atmospheric Streamlining Cost = **[c39]** = [m1] x 50

STEP 40: Select Landing Gear

Landing Gear must be purchased if your starcraft is intended to make planetfall. Large and Super Large starcraft are generally incapable of standard gravity field landings due to their tremendous size. However, you must buy Landing Gear for these vessels if you intend them to touch down on low gravity bodies.

To calculate Landing Gear Volume, you will need to factor in your starcraft's *Mass Category #* (see Section 9.1).

Landing Gear Volume = **[v40]** = [v2] x 0.05 x Category #

Landing Gear Cost = **[c40]** = [m1] x 5 x Category #

Volume left after Step 40 = (Volume left after Step 38) – [v40]

STEP 41: Select Radiation Shielding

Radiation Shielding provides a bonus against harmful electromagnetic radiation which could damage starcraft systems or personnel. Such shielding, when purchased, becomes an integral part of the Hull, and thus does not significantly add to Volume. Only the Cost will have to be taken into account. The Rating of Radiation Shielding determines the corresponding Bonus that is subtracted from Radiation attacks **or** added to Radiation Resistance Rolls.

Select the Rating of your vessel's Radiation Shielding from the *Sensor / EW / Screens / Radiation Shielding Chart* (Page 58)

Note: *Radiation Shielding Ratings may exceed 30. Each Rating above 30 adds .5 to the Shielding Bonus.*

Radiation Shielding Volume = 0

Radiation Shielding Cost = **[c41]** = [m1] x 30 x Rating

9.9
AUXILIARY SYSTEMS

STEP 42: Select Auxiliary Systems

Auxiliary Systems are back-up units for the main operating areas of the starcraft. You may now use any Volume remaining within your vessel to contain these back-ups.

Note that in most cases, Auxiliary Units may not be engaged unless the unit they are backing-up is shut down or completely inoperable. Auxiliary Systems may never be more powerful than the unit they are backing-up.

The purchase procedure for an Auxiliary System is the same as that for the original system. All Volume and Cost calculations are identical. You may purchase Auxiliary Systems from the following Steps:

Step 5	(Sublight Drive)
Step 6	(Translight Drive)
Step 7	(RIF Generator)
Step 14	(Microfreq Rig)
Step 15	(Tight Beam Rig)
Step 16	(TBD Rig)
Step 17	(Sensors)
Step 18	(EW)
Step 19	(Screens)
Step 25	(Computer)
Step 26	(Control Areas)
Step 29	(Life Support).

Volume available for Auxiliary Systems =
Volume left after Step 40

FINAL STEP: Juggling the Numbers

The designer will now have to juggle numbers in order to completely fill the Volume available. The details are left to your own devising, but one helpful hint is available: If access Volume is left over, add it to Step 38 (Cargo Bay), as it is inexpensive and not considered as a factor in other Step calculations.

	Vol. Left
Step 1: Mass [m1]:	
Step 2: Volume [v2]:	
Step 3: Hull [v3]: [c3]:	
CAT:_____ Superior Alloy (DB):_____	
Superior Alloy (volume):_____	
Step 4: Armor Belt [c4]:	
DB:_____ Hit Points:_____	
Step 5: Sublight Drive [v5]: [c5]:	
Rating:_____ Maximum Sublight Acceleration:_____	
Maneuvering Thrust:_____	
Step 6: Translight Drive [v6]: [c6]:	
Rating:_____ Translight Displacement:_____	
Step 7: RIF Generator [v7]: [c7]:	
Step 8: Auto Cannons [v8]: [c8]:	
Mechanism(s) Mk.# and Mount:_____	
Magazine(s):_____	
Mechanism(s) Mk.# and Mount:_____	
Magazine(s):_____	
Step 9: Energy Cannons [v9]: [c9]:	
Mechanism(s) Mk.# and Mount:_____	
Mechanism(s) Mk.# and Mount:_____	
Mechanism(s) Mk.# and Mount:_____	
Mechanism(s) Mk.# and Mount:_____	
Mechanism(s) Mk.# and Mount:_____	
Mechanism(s) Mk.# and Mount:_____	
Step 10: Missile Launchers [v10]: [c10]:	
Mk.# and Launcher:_____ Magazine:_____	
Mk.# and Launcher:_____ Magazine:_____	
Mk.# and Launcher:_____ Magazine:_____	
Mk.# and Launcher:_____ Magazine:_____	
Step 11: Heads Up Displays [c11]:	
HUD:_____ HUD:_____ HUD:_____	
HUD:_____ HUD:_____ HUD:_____	
HUD:_____ HUD:_____ HUD:_____	
Step 12: Payload Pallets [v12]: [c12]:	
Pallet Mk.#:_____ Pallet Mk.#:_____	
Pallet Mk.#:_____ Pallet Mk.#:_____	
Pallet Mk.#:_____ Pallet Mk.#:_____	
Step 13: Tractor Beams [v13]: [c13]:	
Tractor Mk.#:_____ Tractor Mk.#:_____	
Step 14: Microfreq Rig [v14]: [c14]:	
Microfreq Mk.#:_____	
Step 15: Tight Beam Rig [v15]: [c15]:	
Tight Beam Mk.#:_____	
Step 15: Tachyon Beam Dictor [v16]: [c16]:	
TBD Mk.#:_____	
Step 17: Sensors [v17]: [c17]:	
Rating:_____ Sensor Bonus:_____	
Effective Range:_____	
Step 18: Electronic Warfare [v18]: [c18]:	
Rating:_____ EW Bonus:_____	
Step 19: Screen Generator [v19]: [c19]:	
Rating:_____ Screen Bonus:_____	
Step 20: Fusion Reactor [v20]: [c20]:	
Rating:_____	
Step 21: Reactor Fuel Storage [v21]: [c21]:	
Rating:_____ Operating Duration:_____	
Step 22: Matter/Antimatter Fuel [c22]:	
Andrium Units:_____	

	Vol. Left
Step 23: Control Points	
Control Point #:_____	
Step 24: Crew	
# of crewmembers:_____	
Step 25: Main Computer [v25]: [c25]:	
Computer Mk.#:_____ Processing Units:_____	
Memory Units:_____ Reserve Units:_____	
Step 26: Control Area [v26]: [c26]:	
Step 27: Crew Quarters [v27]: [c27]:	
Step 28: Passenger Accommodations	
[v28]: [c28]:	
First Class Stateroom occupants:_____	
Standard Stateroom occupants:_____	
Low/Military Stateroom occupants:_____	
Cryogenic Berth occupants:_____	
Seating occupants:_____	
Step 29: Life Support [v29]: [c29]:	
Step 30: Recreational Facilities [v30]: [c30]:	
Step 31: Dispensary [v31]: [c31]:	
Step 32: Sick Bay [v32]: [c32]:	
Patient capacity:_____	
Step 33: Labs [v33]: [c33]:	
type and bonus:_____ type and bonus:_____	
type and bonus:_____ type and bonus:_____	
type and bonus:_____ type and bonus:_____	
Step 34: Workshops [v34]: [c34]:	
Workshop #1 CIP available:_____	
Workshop #2 CIP available:_____	
Step 35: Security Stations [v35]: [c35]:	
Step 36: Fighter Bays [v36]: [c36]:	
Number and Volume of Fighters:_____	
Step 37: Shuttle/Vehicle Bays [v37]: [c37]:	
Number and Volume of Shuttles/Vehicles:_____	
Step 38: Cargo Hold [v38]: [c38]:	
Step 39: Atmospheric Streamlining [c39]:	
Step 40: Landing Gear [v40]: [c40]:	
Step 41: Radiation Shielding [c41]:	
Rating:_____ Radiation Sheilding Bonus:_____	
Step 42: Auxiliary Systems [v42]: [c42]:	
Volume available:_____	
AUX _____ [v42a]:_____ [c42a]:_____	
AUX _____ [v42b]:_____ [c42b]:_____	
AUX _____ [v42c]:_____ [c42c]:_____	
AUX _____ [v42d]:_____ [c42d]:_____	
AUX _____ [v42e]:_____ [c42e]:_____	
AUX _____ [v42f]:_____ [c42f]:_____	
AUX _____ [v42g]:_____ [c42g]:_____	
AUX _____ [v42h]:_____ [c42h]:_____	
AUX _____ [v42i]:_____ [c42i]:_____	
AUX _____ [v42j]:_____ [c42j]:_____	
AUX _____ [v42k]:_____ [c42k]:_____	
AUX _____ [v42l]:_____ [c42l]:_____	
Remainder to Cargo Bay: [+v38]: [+c38]:	

Cost of vessel without Auto Cannon ammunition, Missiles, Payloads, Workshop CIP expenditures, or Computer Programs: [_____]

9.11 ■■■■■■
STARCRAFT CONSTRUCTION COST SUMMARY

Step #	Cost (Elmonits)

Step 3: Hull .... [m1] x 100 x (Total Cost Multiplier)

Step 4: Armor Belt .... [m1] x Cost Multiplier

Step 5: Sublight Drive ..... ([m1] x 15 x Rating) + 30K

Step 6: Translight Drive ... ([m1] x 30 x Rating) + 100K

Step 7: RIF Generator ...... ([m1] x 100) + 10K

Step 8: Auto Cannon
Firing Mechanism .. (Mk.# x 500) + 500
Weapon Mount ...... (Category #) x 5K
Magazine .... (Mk.# x 50) + ((# of rounds fire) x 5)

Step 9: Energy Cannon
Laser .... ((Mk.# x 600) + 2K) x (Category #)
Blast .... ((Mk.# x 500) + 2K) x (Category #)
Disruptor .... ((Mk.# x 700) + 10K) x (Category #)
Ion .... ((Mk.# x 800) + 50K) x (Category #)
Plasma .... ((Mk.# x 2K) + 200K) + (Category #)
Weapon Mount ...... (Category #) x 5K

Step 10: Missile Launchers
Launcher .... (Category #) x 5K
Magazine .... (Mk.# x 100) + ((# of missiles) x 10)

Step 11: Heads Up Displays
+5 .... 10K
+10 .... 20K
+15 .... 60K
+20 .... 240K
+25 .... 1200K

Step 12: Payload Pallets .. Mk.# x 10

Step 13: Tractor Beams ... Mk.# x 5K

Step 14: Microfreq Rig .... Mk.# x 100

Step 15: Tight Beam Rig . Mk.# x 20K

Step 16: TBD Rig .... Mk.# x 500K

Step 17: Sensors .... 2K x Rating

Step 18: EW .... [m1] x 30 x Rating

Step 19: Screens .... [m1] x 20 x Rating

Step 20: Fusion Reactor .. (Rating x 500 x (Category #) x (Category #)) + 50K

Step 21: Fuel Storage ...... (Reactor Rating + Storage Rating) x 10

Step 22: Andrium .... (# of Andrium Units) x 5K

Step 25: Computer .... Mk.# x 1K

Step 26: Control Area ...... (# of Crew) x 5K x (Category #)

Step 27: Crew Quarters ... (# of Crew) x 500

Step #	Cost (Elmonits)

Step 28: Passenger Accommodations
First Class .... # x 1K
Standard .... # x 800
Low/Military .... # x 500
Cryogenic Berth ..... # x 1K
Seat .... # x 100

Step 29: Life Support ...... ((# of Crew) + # of Passengers) x 500

Step 30: Recreation .... (# of Stateroom Passengers) x 100

Step 31: Dispensary .... ((# of Crew) + # of Passengers) x 200

Step 32: Sick Bay .... (# of Patients) x 4K

Step 33: Labs .... 1K per cumet

Step 34: Workshop .... 100 per cumet

Step 35: Security .... (# of Military personnel) x 50

Step 36: Fighter Bay .... 50 per cumet

Step 37: Shuttle Bay .... 20 per cumet

Step 38: Cargo Hold .... 5 per cumet

Step 39: Streamlining ...... [m1] x 50

Step 40: Landing Gear ..... [m1] x 5 x (Category #)

Step 41: Rad Shield .... [m1] x 30 x Rating

Step 42: Auxiliary .... As per other systems listed

LOADING UP

Item	Cost (Elmonits)

Auto Cannon ammunition .... (Mk.# x 25) per Round of fire

Missiles
Explosive Warhead .... Mk.# x 1000
Nuclear Warhead .... Mk.# x 10K

Payloads
• **Torpedos**
Explosive Warhead ...... Mk.# x 750
Nuclear Warhead .... Mk.# x 7500
Matter/Antimatter .... Mk.# x 1000K
• **Mines**
Explosive Warhead ...... Mk.# x 500
Nuclear Warhead .... Mk.# x 5K
Matter/Antimatter .... Mk.# x 750K
• **Explosive Warhead Missile Packs**
5-Pack .... (Mk.# x 5K) + 6050
10-Pack .... (Mk.# x 10K) + 6100
25-Pack .... (Mk.# x 25K) + 6250
50-Pack .... (Mk.# x 50K) + 6500
100-Pack .... (Mk.# x 100K) + 7K
• **Pods**
EW Pod .... Mk.# x 2K
Sensor Pod .... Mk.# x 1500
Recon Pod .... Mk.# x 1K
Cargo Pod .... Mk.# x 50

Workshop CIP .... As per Workshop CIP limit

Andrium refueling .... (# of Andrium Units) x 5K

EXAMPLE OF STARCRAFT CONSTRUCTION

The Starcraft Construction guidelines may be a little intimidating. If you find this to be the case, read through the following example in which Sheri and Tod design the "Ardent Sloor".

Sheri and Tod, our intrepid space explorers, have been commissioned to design a flexible starcraft capable of deep space travel, planetary survey, paramilitary squad transport, and self defense. Quite a tall order, but they're both up to the task (or so they say).

"Alright, Step 1," says Sheri, "lets get the mass set down."

"Hold on," interjects Tod. "First of all, I don't like the name. I mean... Ardent Sloor, it's disgusting."

"Shut up and pick the mass."

"OK, 4500 tons. That's what the specs ask for. Just think, our very own scout vessel, isn't it exciting?"

Sheri rolls her eyes.

- **[m1]** = 4500

Sheri, being the sharp android that she is, notes that the volume of the Sloor will be 13,500 cumets.

- **[v2]** = 4500 x 3 = 13,500

"That was easy," says Sheri, though Tod is still erasing some erroneous calculations. "Now for the CAT in Step 3."

"What cat?" asks Tod. "This is a space ship, not our apartment."

"No Tod, CAT stands for Construction Armor Type. It will form the basis of our hull."

"Oh..."

"CAT 25 looks good," Sheri reasons. "Reinforced Crysteel; resilient and cost effective."

"Ya, OK," says Tod, "but I want to get some of those superior alloys. Let's say +10 to DB, and -10% from hull volume."

"Hmmm..." Sheri makes a few quick calculations. "That would drive our CAT cost multiplier from a mere 7.0, to 56.0 (7.0 x 4.0 x 2.0). Instead of paying 3.15 million Elmonits for the hull, we'd have to fork over 25.2 million. Forget it, that's more than we have available to pay for the entire ship!"

"Oh..."

- **[v3]** = 13,500 x 0.06 = 810 cumets
- **[c3]** = 4500 x 100 x 7.0 = 3,150K Elmonits

"That leaves 12,690 cumets."

"Well, if we can't have some superior alloys, can we at least get an armor belt?"

"Very well, +5 to DB and an increase in hit points from 4500 to 4725 looks good."

"Hold on," says Tod. " How did you get 4725 hit points for the Sloor?"

"Elementary! Hit points usually equal craft tonnage, but our armor belt increases the hit point total by 5%."

- **[c4]** = 4500 x 100 = 450K Elmonits

"In Step 5 we have to buy our sublight drive; that provides the Sloor's Maximum Sublight Acceleration and the Maneuvering Thrust."

"I know that," says Tod indignantly. "What do you think I am? Stupid?"

"I won't answer that."

Tod, perturbed, says: "I want Rating 10."

"That will take up a lot of space, especially considering that at 4500 tons, the Sloor is a "Medium" vessel and its sublight drives are twice the size of a "Small" vessel's."

"I don't care," says Tod. "We'll need a fast ship if we get into combat."

- **[v5]** = (13,500 x 0.02 x 10) + 250 = 2950 cumets
- **[c5]** = (4500 x 15 x 10) + 30K = 705K Elmonits

"Whoa! I hope your satisfied," says Sheri. "That was big; we've only got 9740 cumets left."

"OK, let's skimp on the Translight Drive: Step 6."

"That's not much of a solution, but you seem to have forced our hand. How about Rating 2? That will move us along at 2 Light Years per day through Hyperspace."

"Sounds cool," says Tod, wide-eyed with anticipation.

- **[v6]** = (13,500 x 0.02 x 2) + 50 = 590 cumets
- **[c6]** = (4500 x 30 x 2) + 100K = 370K Elmonits

Tod punches some buttons on his calculator and states: "9150 cumets to go."

"All right, now for Step 7 and the RIF generator."

"Ooo ya, we need one of those!" says Tod.

- **[v7]** = 13,500 x 0.01 = 135 cumets
- **[c7]** = (4500 x 100) + 10K = 460K Elmonits

"Wow, we've got 9015 cumets left! Think of all the weapons we could buy over the next few Steps."

"Get a grip, Tod," says Sheri. "The more weapons we buy, the bigger our reactor will have to be. And don't forget the EW, Screens, Bridge, Passengers, Life Support..."

"OK, I get the point. So what weapons do we buy?"

Sheri considers. "Step 8: Auto Cannons. Lets get one and use it as a back up for our energy cannons, since they'll be the first to go in combat."

"You've been looking at the critical tables," observes Tod.

"Of course. Now, let's get a Mk.10 Auto Cannon in a turret with a 10 Combat Round magazine."

"How do we calculate all that?" asks Tod, somewhat bewildered.

"No problem. The mechanism is 10 cumets and costs 5500. The turret is 30 cumets and costs 15K. The Auto Cannon magazine occupies 50 cumets, but only costs 550 Elmonits."

STARCRAFT CONSTRUCTION WORKSHEET

THE ARDENT SLOOR

		Vol. Left
Step 1: Mass [m1]: 4500		
Step 2: Volume [v2]: 13,500		13,500
Step 3: Hull [v3]: 810 [c3]: 3,150,000		12,690
CAT: 25 Superior Alloy (DB): —		
Superior Alloy (volume): —		
Step 4: Armor Belt [c4]: 450,000		
DB: +5 Hit Points: 4725		
Step 5: Sublight Drive [v5]: 2950 [c5]: 705,000		9740
Rating: 10 Maximum Sublight Acceleration: 100 km/s²		
Maneuvering Thrust: 10		
Step 6: Translight Drive [v6]: 590 [c6]: 370,000		9150
Rating: 2 Translight Displacement: 2 L/day		
Step 7: RIF Generator [v7]: 135 [c7]: 460,000		9015
Step 8: Auto Cannons [v8]: 90 [c8]: 21,050		8925
Mechanism(s) Mk.# and Mount: 1x Mk.10 Turret		
Magazine(s): 10 Combat Rounds		
Mechanism(s) Mk.# and Mount:		
Magazine(s):		
Step 9: Energy Cannons [v9]: 960 [c9]: 199,000		7965
Mechanism(s) Mk.# and Mount: 2x Mk.10 Laser/Turret		
Mechanism(s) Mk.# and Mount: 2x Mk.10 Laser/Turret		
Mechanism(s) Mk.# and Mount: 1x Mk.20 Ion/Fixed		
Mechanism(s) Mk.# and Mount:		
Mechanism(s) Mk.# and Mount:		
Mechanism(s) Mk.# and Mount:		
Step 10: Missile Launchers [v10]: 48 [c10]: 15,700		7917
Mk.# and Launcher: Mk.6 Turret Magazine: 10		
Mk.# and Launcher: Magazine:		
Mk.# and Launcher: Magazine:		
Mk.# and Launcher: Magazine:		
Step 11: Heads Up Displays [c11]: 70,000		
HUD: +10 HUD: +5 HUD:		
HUD: +10 HUD: HUD:		
HUD: +10 HUD: HUD:		
Step 12: Payload Pallets [v12]: 40 [c12]: 400		7877
Pallet Mk.#: 20 Pallet Mk.#:		
Pallet Mk.#: 20 Pallet Mk.#:		
Pallet Mk.#: Pallet Mk.#:		
Step 13: Tractor Beams [v13]: 250 [c13]: 25,000		7627
Tractor Mk.#: 5 Tractor Mk.#:		
Step 14: Microfreq Rig [v14]: 6 [c14]: 1000		7621
Microfreq Mk.#: 10		
Step 15: Tight Beam Rig [v15]: 21 [c15]: 20,000		7600
Tight Beam Mk.#: 1		
Step 15: Tachyon Beam Dictor [v16]: — [c16]: —		
TBD Mk.#:		
Step 17: Sensors [v17]: 320 [c17]: 20,000		7280
Rating: 10 Sensor Bonus: 50		
Effective Range: 1.0 LY		
Step 18: Electronic Warfare [v18]: 1350 [c18]: 1,350,000		5930
Rating: 10 EW Bonus: 50		
Step 19: Screen Generator [v19]: 810 [c19]: 180,000		5120
Rating: 2 Screen Bonus: 10		
Step 20: Fusion Reactor [v20]: 608 [c20]: 354,000		4512
Rating: 152		
Step 21: Reactor Fuel Storage [v21]: 122 [c21]: 1720		4390
Rating: 20 Operating Duration: 200 days		
Step 22: Matter/Antimatter Fuel [c22]: 500,000		
Andrium Units: 100		

		Vol. Left
Step 23: Control Points		
Control Point #: 10		4390
Step 24: Crew		
# of crewmembers: 5		
Step 25: Main Computer [v25]: 5 [c25]: 50,000		4385
Computer Mk.#: 50 Processing Units: 50		
Memory Units: 100 Reserve Units: 500		
Step 26: Control Area [v26]: 100 [c26]: 50,000		4285
Step 27: Crew Quarters [v27]: 50 [c27]: 2500		4235
Step 28: Passenger Accommodations [v28]: 100 [c28]: 5000		4135
First Class Stateroom occupants:		
Standard Stateroom occupants:		
Low/Military Stateroom occupants: 10		
Cryogenic Berth occupants:		
Seating occupants:		
Step 29: Life Support [v29]: 150 [c29]: 7500		3985
Step 30: Recreational Facilities [v30]: 50 [c30]: 1000		3935
Step 31: Dispensary [v31]: 15 [c31]: 3000		3920
Step 32: Sick Bay [v32]: 125 [c32]: 4000		3795
Patient capacity: 1		
Step 33: Labs [v33]: 600 [c33]: 600,000		3195
type and bonus: Meta.+10 type and bonus: Zool.+10		
type and bonus: Plan.+10 type and bonus: Anth.+10		
type and bonus: Bota.+10 type and bonus: Astr.+10		
Step 34: Workshops [v34]: 405 [c34]: 40,500		2790
Workshop #1 CIP available: 810,000		
Workshop #2 CIP available:		
Step 35: Security Stations [v35]: 20 [c35]: 500		2770
Step 36: Fighter Bays [v36]: — [c36]: —		
Number and Volume of Fighters:		
Step 37: Shuttle/Vehicle Bays [v37]: — [c37]: —		
Number and Volume of Shuttles/Vehicles:		
Step 38: Cargo Hold [v38]: 120 [c38]: 600		2650
Step 39: Atmospheric Streamlining [c39]: 225,000		
Step 40: Landing Gear [v40]: 1350 [c40]: 45,000		1300
Step 41: Radiation Shielding [c41]: 1,350,000		
Rating: 10 Radiation Shielding Bonus: 50		
Step 42: Auxiliary Systems [v42]: 1154 [c42]: 1,152,000		146
Volume available: 1300		
AUX RIF [v42a]: 135 [c42a]: 460,000		
AUX RIF [v42b]: 135 [c42b]: 460,000		
AUX Microfreq 10 [v42c]: 6 [c42c]: 1000		
AUX Tight Beam 1 [v42d]: 21 [c42d]: 20,000		
AUX Sensors 3 [v42e]: 47 [c42e]: 6000		
AUX Screens 1 [v42f]: 405 [c42f]: 90,000		
AUX Bridge [v42g]: 100 [c42g]: 50,000		
AUX Life Support [v42h]: 150 [c42h]: 7500		
AUX Life Support [v42i]: 150 [c42i]: 7500		
AUX Computer 50 [v42j]: 5 [c42j]: 50,000		
AUX [v42k]: [c42k]:		
AUX [v42l]: [c42l]:		

Remainder to Cargo Bay: [+v38]: 146 [+c38]: 730 | 0

Cost of vessel without Auto Cannon ammunition, Missiles, Payloads, Workshop CIP expenditures, or Computer Programs: **11,430,200**

"Don't we need ammunition too?"

"Yes, Tod, we'll stock up after the design is finished. In case you're interested though, 10 Combat Rounds worth of ammo will cost us 2500 Elmonits each time we have to reload the magazine."

- **[v8]** = 10 + 30 + 50 = 90 cumets

- **[c8]** = 5500 + 15K + 550 = 21,050 Elmonits

"8925 cumets to go," declares Tod. *"Now for Step 9 and Energy Cannons."*

"Well," says Sheri, *"this isn't supposed to be a war ship, but you know how space pirates can be. We had better get two twin Mk.10 Laser turrets for SMAC defense, and a Mk.20 Ion Cannon for some offensive punch of our own."*

"Are you allowed to put two cannons in a single turret?" asks Tod, thinking Sheri is taking a little liberty with the design protocol.

"Sure. Even more if you'd like, just read the note in Step 9."

"Right on!" says Tod, *"But could you do the calculations..."*

"Two Mk.10 Laser Firing Mechanisms are 20 cumets, costing 16K. A turret to encase them is 60 cumets and 15K. That's a total of 80 cumets and 31K Elmonits for the whole thing, but we want two such turrets. That will be a total of four Lasers in two turrets."

"Do they need magazines, like the Auto Cannons?"

"No," assures Sheri, *"Energy Cannons are empowered to fire by the reactor. Now for that Ion Cannon. It's Mk.20 (Category 2), so the mechanism volume is 400 and the cost is 132K. We'll put it in a Fixed (forward) mount, so the mount volume will be 400, and the cost 5K. The total is 800 cumets, 137K Elmonits.*

- **[v9]** = 80 + 80 + 800 = 960 cumets

- **[c9]** = 31K + 31K + 137K = 199K Elmonits

"7965 cumets left," says Tod. *"Step 10 and missile launchers are next. Do we want them?"*

"One small one," affirms Sheri. *"We may need it for protection against incoming Torpedoes, and any unfriendly fighters that get too close. Let's get a Mk.6 launcher with a 10 missile magazine."*

"Sounds great. But we'll only be able to fire Mk.6 missiles out of it, right?"

"Exactly, Tod," says Sheri, rather shocked at her companion's understanding of the rules. *"Let's make the launcher a turret mount for a better field of fire, OK?"*

"OK!"

"That will be 18 cumets for the launcher, costing 15K. The magazine, empty mind you, is 30 cumets, costing 700. We'll buy the actual missiles later, when we get the Auto Cannon ammunition."

"Ya, if we have any money left. This is beginning to get expensive."

- **[v10]** = 18 + 30 = 48 cumets

- **[c10]** = 15K + 700 = 15,700 Elmonits

"That leaves 7917 cumets left for further installations." Tod is confident that he has a firm grasp of 'the volume remaining' concept now.

"Well," says Sheri, *"Step 11 won't be requiring us to use up volume. We have to buy our HUDs now. Heads Up Displays will help us to target any unfriendlies, giving the Gunners an Offensive Bonus."*

"I knew that," says Tod rather unconvincingly.

"We'll get +10 HUDs for the Ion Cannon and two Laser Turrets, and a +5 HUD for the missile launcher."

- **[c11]** = 20K + 20K + 20K + 10K = 70K Elmonits

"Step 12 is something called payload pallets..." Tod trails off and begins reading the section.

"Pallets are mounts for interchangeable weapons and pods. If we got one, we could attach a torpedo, mine, missile launcher, or EW pod to it."

"Ooo, let's get two then! They sound great," urges Tod.

"All right," says Sheri, *"we'll get two Mk.20 payload pallets, but let's load them later.*

- **[v12]** = 20 + 20 = 40 cumets

- **[c12]** = 200 + 200 = 400 Elmonits

"We're down to 7877 cumets left," informs Tod.

"Ah, Step 13 is tractor beams. We'll get one Mk.5 just in case."

"Just in case of what?" Tod sounds a little worried.

- **[v13]** = 5 x 50 = 250 cumets

- **[c13]** = 5 x 5K = 25K Elmonits

"7627 cumets to go."

Sheri looks through the next few steps of the construction process and says: *"Well, communication systems are next. We want a good microfreq rig, and a small tight beam laser set. TBDs are just too big and expensive. What say we buy a Mk.10 microfreq and just a Mk.1 tight beam?"*

"Sure..." says Tod, wondering whether the question was rhetorical.

- **[v14]** = (10 x 0.1) + 5 = 6 cumets

- **[c14]** = 10 x 100 = 1K Elmonits

- **[v15]** = (1 x 1.0) + 20 = 21 cumets

- **[c15]** = 1 x 20K = 20K Elmonits

"That leaves us with 7600 cumets, even."

"Step 17 is sensors," observes Sheri. *"If this scout of ours is going to be doing any sort of survey work, we'll need good sensors."*

"Agreed. How about Rating 10?"

- **[v17]** = (10 x 10 x 3) + 20 = 320 cumets

- **[c17]** = 10 x 2K = 20K Elmonits

"7280 cumets left. Is that enough?" asks Tod.

"Let's hope so; the next three Steps could get pretty big."

"OK. What's first?"

Sheri takes a look, then says: "Step 18 is Electronic Warfare. That's essential as far as I'm concerned. Rating 10."

"Rating 10 it is. That will give us an EW bonus of 50, right?"

"Right, Tod."

- **[v18]** = 13,500 x 0.01 x 10 = 1350 cumets

- **[c18]** = 4500 x 30 x 10 = 1,350K Elmonits

"5930 cumets left. Boy, was that expensive!"

"It'll be worth it," says Sheri. "Now, Step 19 is Deflector Screens. They take up a lot of space. Let's get Rating 2."

"But that will be only +10 to DB, Sheri."

Ignoring Tod's whining, Sheri does the math.

- **[v19]** = 13,500 x 0.03 x 2 = 810 cumets

- **[c19]** = 4500 x 20 x 2 = 180K Elmonits

"5120 cumets to go."

"Step 20 is the fusion reactor to power up our major systems." Sheri begins some furious scribbling.

"Sounds important," says Tod. "How do we figure out how big it has to be?"

"Well, the reactor Rating is equal to the sum of several factors. 10 for sublight drive, 10 EW, 2 Screens, 40 Mk.#'s worth of Lasers, 20 for the Ion Cannon, 25 (5 x 5) for the tractor beam and 45 for the vessel's other systems. Rating 152."

- **[v20]** = 152 x 2 x 2 = 608 cumets

- **[c20]** = (152 x 500 x 2 x 2) + 50K = 354K Elmonits

Tod says: "Now we need the fuel storage unit. Let's get one big enough to last for 200 days."

"That would make it Rating 20," observes Sheri.

- **[v21]** = 608 x 0.01 x 20 = 122 cumets

- **[c21]** = (152 + 20) x 10 = 1720 Elmonits
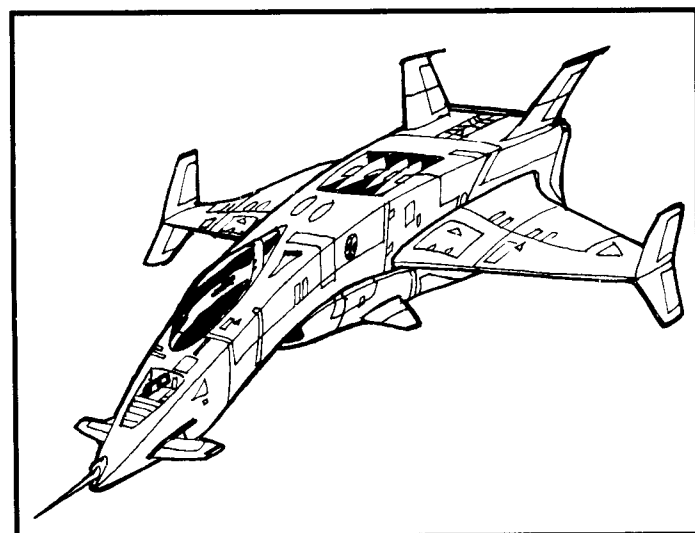
"4390 cumets left."

"OK, Step 22. Here we buy our first allotment of Andrium; Matter/Antimatter fuel. It powers the translight drive," says Sheri.

Tod, reading ahead, says: "100 Andrium Units will displace us 100 Light Years total. That sounds good."

- **[c22]** = 100 x 5K = 500K Elmonits

"Now we have to determine 'Control Points'," says Sheri.

"Huh? What are those?"

"The control point total will give us an idea of how many crewmembers we'll need to operate the Sloor, and then how big our computer should be. Let me do this calculation Tod, there's a square root in it."

"A what..."

- **Control Points** = 10 = Square root of:
  (45 + 10 + 2 + 4 + 1 + 2 + 11 + 10 + 10 + 2)

Sheri continues: "10 control points. That's not too many. If we designate the Sloor to be manned by 5 crewmembers and then install a Mk.50 computer, we'll be all set."

"Where did you get those figures?" asks a confused Tod.

"Steps 24 and 25."

"Oh..."

"Now the rest of this thing is pretty easy," says Sheri. "In Step 26 we buy the Bridge for the crew. In Step 27 we get all of them beds and stuff. Now, we want the Sloor to be able to transport a squad of soldiers, right?"

"Right."

"OK then. In Step 28 we buy 10 military staterooms. Life support systems for all 15 persons (5 crew + 10 passengers) on board are purchased in Step 29, and in Step 30, we install a work-out area for the grunts. Got it?"

"I think so," says Tod tentatively, "but could we go through the math?"

"Sure."

- **Crew** = 5
- **[v25]** = 50 x 0.1 = 5 cumets
- **[c25]** = 50 x 1K = 50K Elmonits
- **[v26]** = 5 x 10 x 2 = 100 cumets
- **[c26]** = 5 x 5K x 2 = 50K Elmonits
- **[v27]** = 5 x 10 = 50 cumets
- **[c27]** = 5 x 500 = 2500 Elmonits
- **[v28]** = 10 x 10 = 100 cumets
- **[c28]** = 10 x 500 = 5K Elmonits
- **[v29]** = (5 + 10) x 10 = 150 cumets
- **[c29]** = (5 + 10) x 500 = 7500 Elmonits
- **[v30]** = 10 x 5 = 50 cumets
- **[c30]** = 10 x 100 = 1K Elmonits

"Well, after all that, we've still got 3935 cumets left," declares Tod proudly, having kept up.

"OK. Now we get a dispensary in Step 31 and a sick bay for one patient in Step 32. And then, because the Sloor is going to be a scout, we'll get several research labs in Step 33. Let's see... we'll get six labs, each granting a +10 research bonus: Metallurgy, Planetology, Botany, Zoology, Anthropology, and Astronomy."

"Whoa, slow down," says Tod, "let's go through these."

- **[v31]** = (5 + 10) x 1 = 15 cumets
- **[c31]** = (5 + 10) x 200 = 3K Elmonits
- **[v32]** = (1 x 25) + 100 = 125 cumets
- **[c32]** = 1 x 4K = 4K Elmonits
- **[v33]** = 6 x 100 = 600 cumets
- **[c33]** = 600 x 1K = 600K

"Now we have 3195 cumets left," says Tod. "It seems like a lot. What do we still have to get?"

"For starters, in Step 34 we buy one workshop. As we'll see in the following calculations, the workshop will wind up being 405 cumets. That means later on, we can stock it with up to 810K Elmonits worth of parts for CIP repairs of ship systems."

"I'll take your word for it," says Tod.

"Well just read Step 34 and I'm sure you'll get it straight. Anyway, to continue, in Step 35 we get a security station for our paramilitary passengers. Then we skip Steps 36 and 37 because we won't have enough space to get fighter and shuttle bays. In Step 38 we install a 120 cumet cargo hold. Steps 39 and 40 will streamline the Sloor and allow us to make planetfall with the installation of landing gear. Finally, in Step 41 we'll get Rating 10 radiation shielding to protect the crew and instruments from solar flares and the like."

"Rating 10;" says Tod, "that will give us a +50 bonus!"

- **[v34]** = 13,500 x 0.03 = 405 cumets
- **[c34]** = 405 x 100 = 40,500 Elmonits
- **[v35]** = 10 x 2 = 20 cumets
- **[c35]** = 10 x 50 = 500 Elmonits
- **[v38]** = 120 cumets
- **[c38]** = 5 x 120 = 600 Elmonits
- **[c39]** = 4500 x 50 = 225K Elmonits
- **[v40]** = 13,500 x 0.05 x 2 = 1350 cumets
- **[c40]** = 4500 x 5 x 2 = 45K Elmonits
- **[c41]** = 4500 x 30 x 10 = 1,350K Elmonits

"Believe it or not," says Tod, "we have exactly 1300 cumets left after all of that. Is there anything else to buy?"
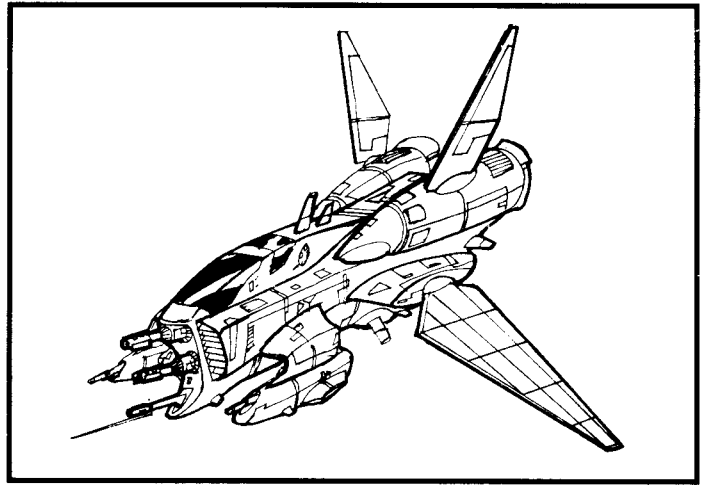
"In Step 42, which thankfully is the last Step, we purchase all of our auxiliary systems."

"What are they for?" asks Tod, no longer embarassed about asking dumb questions.

"Well," explains Sheri, "if some essential system on the Sloor should fail due to malfunction or damage, we can shut it down and kick in the auxiliary while we fix the main unit. And we can get multiple auxiliaries of the same system, just in case the first auxiliary goes down too."

"Ah, I see. What a great idea. No wonder you were saving on volume up until now. Boy, am I glad you were doing all of this; I would have made a complete mess of things by this point."

"I know. OK, we've got enough room left to install two RIFs (Step 7), a microfreq rig (Step 14), a tight beam rig (Step 15), Rating 3 sensors (Step 17), Rating 1 screens (Step 19), a Mk.50 computer (Step 25), a bridge (Step 26), and two life support units (Step 29)."

- **[v42]** = 1154 cumets
- **[c42]** = 1,152K Elmonits

"That leaves us with a mere 146 cumets," says Tod looking up from his calculator.

"No problem," replies Sheri. "We'll just add that to our cargo bay."

- **[+v38]** = 146 cumets
- **[+c38]** = 5 x 146 = 730 Elmonits

"Now are we done?" asks Tod, not quite believing that it could be true.

"Well," says Sheri, "as far as the construction is concerned, yes. Before we ship-out on the Sloor we'll have to buy our Mk.10 Auto Cannon ammunition, Mk.6 Missiles, two Mk.20 Payloads of some sort, and we should stock our workshop with parts. All of this is called "loading up". Also, we still have to buy our Computer Programs. We'll buy our Computer Programs in the example at the end of the next section of rules."

"Cool!" exclaims Tod. "But what is the cost of the Sloor up to this point?"

"Unloaded, that's 11,430,200 Elmonits."

"Whoa! I hope our loan application gets accepted."

10.0

COMPUTERS AND PROGRAMS

Once you have completed the construction of your starcraft, you will want to select the computer programs which will help run it. Since *Star Strike* can be played as a "war/board game" **or** used as a role playing supplement, this section will provide information on both combat and utility programs.

Note that the *Star Strike* computer rules are a revised version of those found in *Space Master: The Role Playing Game*. Although compatible in principal, the rules found herein should be somewhat easier to use.

10.1

INTRODUCTION TO COMPUTERS

The raw measure of a computer's power in *Star Strike* is its Mk.#. As noted in the Starcraft Construction guidelines (Section 9.7), the higher a computer's Mk.#, the larger and more sophisticated it is. A high Mk.# computer can run more programs (and of better quality) and may provide a significant edge in combat situations.

A computer's Mk.# defines three distinct parameters of the unit:

Number of Processing Units (PUs): A computer has a number of Processing Units equal to its Mk.#. Each program in a computer requires a certain number of Processing Units in order to operate; when a program is not operating it requires zero PUs.

Number of Memory Units (MUs): A computer has a number of Memory Units equal to its Mk.# x 2. Each program in a computer may require MUs when it is operating. When a program is not operating it will not require any MUs; but MUs may be used to satisfy RU requirements.

Number of Reserve Units (RUs): A computer has a number of Reserve Units equal to its Mk.# x 10 (i.e., also called reserve memory, secondary storage, backup storage, etc.). A program always requires RUs for storage; but MUs may be used to satisfy RU requirements.

Note: *The Computer's "Operating System" is an intrinsic part of the Computer and requires none of the available PUs, MUs, or RUs.*

Generally, when a program is operating (i.e., the program is "running" in the "processor"), it will occupy a certain number of Processing Units and Memory Units. When a program is not operating (i.e., it is in "storage"), its PU and MU requirements drop to zero. At all times each program requires storage in the form of Reserve Units and/or Memory Units.

Example: *The Computer installed on the "Ardent Sloor" is a Mk.50 model. It therefore has 50 Processing Units, 100 Memory Units, and 500 Reserve Units. If a program has a "Running Size" of 2 PUs and 4 MUs, it requires 2 PUs and 4 MUs when operating .*

There are several programs which you may buy for your computer, but only one of them is absolutely essential and must be constantly "running" whenever your ship is operational. That one key program is called "Systems Integrity and Maintenance" (SIM for short), and it is described in the *Program Listing* (Section 10.4).

Section 10.4 also presents a listing of the "Running Sizes" (i.e., the number of PUs, MUs) and the "Storage Sizes" required by the various Computer Programs.

PROGRAM RATING

Some of the Computer Programs in *Star Strike* can be purchased at differing levels of complexity (e.g., Tactics, Predict, and Evade). Such Computer Programs are called "*Rated Programs*". The higher the Rating of a program, the larger the bonus which that program affords to the given action. The Rating level of a Computer Program will determine how many Processing, Memory, and/or Reserve Units it will occupy. See the *Program Listing* (Section 10.4).

The following chart displays these bonuses.
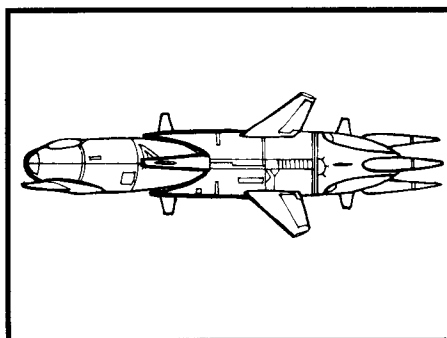
Rating	Rated Computer Program Bonus
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	52
12	54
13	56
14	58
15	60
16	62
17	64
18	66
19	68
20	70
21	71
22	72
23	73
24	74
25	75
26	76
27	77
28	78
29	79
30	80
31+	80 + .5 x (Rating − 30)

Note: *Ratings may exceed 30. Each Rating above 30 adds .5 to the Bonus. Rated Programs have a maximum Rating of 100 due to technological limitations.*

PROGRAM LOADING TIME

As already mentioned, programs are either running, or they are in storage. On occasion, it may be important to know how long it takes to get a program up and running in the processor out of storage.

• If a program is stored in Memory Units, you may begin running it immediately.

• If space limitations forced you store a program in Reserve Units, the Program Loading Time is significantly increased: 10 Processing Units may be filled per Round (10 seconds).

• Any program that is presently running may be put into storage instantly upon command.

10.2
FUNCTION OF COMPUTERS IN COMBAT

Your starcraft's computer will generally have to run five programs (if they're available!) while in combat situations:

Systems Integrity and Maintenance (SIM): Coordinates the workings of many of your vessel's major systems (e.g., Drive, EW, Screens, Life Support, Damage Control, etc.).

Targeting: Provides lock-on information to Weapon Mounts. Also allows a Gunner to control the fire of a mount, or it will automatically fire unmanned mounts by means central computerized fire control.

Tactics: A *Rated Program* which adds a bonus to the vessel's Initiative Number. The Tactics bonus is restricted by the vessel's present Maneuvering Thrust (Section 4.5).

Predict: A *Rated Program* which adds a bonus to the vessel's OB. The Predict bonus is restricted by the vessel's present Maneuvering Thrust (Section 4.5).

Evade: A *Rated Program* which adds a bonus to the vessel's DB. The Evade bonus is restricted by the vessel's present Maneuvering Thrust (Section 4.5).

A Perusal of the *Program Listing* (Section 10.4) will show that the Processing Units available for your Tactics, Predict and Evade Programs will be limited by the amount of space taken up by your SIM and Targeting Programs. Generally, the number of Processing Units available for Tactics, Predict and/or Evade will equal your Processing Unit total, minus SIM units and Targeting units. This may be represented by the formula:

PUs for Tactics, Predict, and Evade =
(Computer Mk.#) − (Control Points x 2) − (# of Firing Mounts + # of Missile Launchers).

Example: *A Fire Brand SMAC has a Mk.40 Computer, 5 Control Points, 1 Firing Mount and no Missile Launchers. The number of Processing Units available for Tactics, Predict and/or Evade = 40 - (5x2) - (1+0) = 29. Therefore, the sum total Rating levels for Tactics, Predict and/or Evade may not exceed 29. This results in the standard breakdown of Tactics Rating 10, Predict Rating 9, and Evade Rating 10. The Fire Brand's Sublight Drive Rating is 15, so these program ratings fall within acceptable limits. Thus, the Fire Brand's Program bonuses are Tactics +50, Predict +45 and Evade +50 when in standard configuration.*

10.3
OTHER FUNCTIONS OF COMPUTERS

When not in combat, a portion of your computer's Processing Units will be freed-up to run other programs at your leisure. Although you will always have to run the vessel's SIM, there are five other areas of non-combat programs to choose from. The five areas are: Astrogation, Survey, Technical Reference, Scientific Reference, and Database Reference.

The number of non-combat programs you may run is, of course, limited by the number of Processing and Memory Units available. Storage of these programs when not in use will also be limited by your computer's Memory and/or Reserve Units.

10.4
PROGRAM LISTING

This section includes descriptions, Running Sizes, and Storage Sizes for all of the *Star Strike* Computer Programs.

THE SIM PROGRAM

Systems Integrity and Maintenance (SIM): SIM is a cross-system integration and housekeeping program. Its various functions include control of Drives, Power, EW, Screens, Life Support, Communications, Security, Lighting, and Damage Control (among others). The SIM program allows a complex, multi-system unit, like a starcraft, to work as a cohesive whole. SIM must always be running whenever a vessel is operational. While running, SIM will occupy Processing Units and possibly Memory Units (if the MU calculation would result in a negative number, assume a "0" instead).

COMBAT PROGRAMS

Targeting: A combination target lock-on, gunner interface, and central fire control option program. The program's size is a direct function of the total number of a vessel's Firing Mounts and Missile Launchers (including Missile Launchers carried on Payload Pallets).

Tactics: A *Rated Program* (See 10.1) which adds a bonus to the vessel's Initiative Number. The Tactics Program Rating may not exceed the vessel's Sublight Drive Rating.

Predict: A *Rated Program* (See 10.1) which adds a bonus to the vessel's OB. The Predict Program Rating may not exceed the vessel's Sublight Drive Rating.

Evade: A *Rated Program* (See 10.1) which adds a bonus to the vessel's DB. The Evade Program Rating may not exceed the vessel's Sublight Drive Rating.

ASTROGATION PROGRAMS

N-space Course: This program must be running whenever the vessel's pilot(s) is plotting an extended N-space journey, **and** during any extended N-space journey. Plotting and moving without this program is an *Absurd* maneuver.

Hyperspace Course: This program must be running whenever the vessel's pilot(s) is plotting a Translight journey, **and** during any Translight journey. Plotting and moving without this program is an *Insane* maneuver.

Preset N-space Course: This is basically a course tape which bypasses the need of plotting one's own N-space course. Pilot(s) need not make an Astrogation attempt when using this program, and the usual N-space Course program is unnecessary. Any given course tape will only be functional for a journey between two designated points. The cost is a direct function of the distance to be travelled in Light Seconds.

Preset Hyperspace Course: This is basically a course tape which bypasses the need of plotting one's own Hyperspace course. Pilot(s) need not make an Astrogation attempt when using this program, and the usual Hyperspace Course program is unnecessary. Any given course tape will only be functional for a journey between two designated points. The cost is a direct function of the distance to be travelled in Light Years.

Star Chart: Star Charts are purchased in 1000 cubic Light Year blocks. Working in conjunction with a Hyperspace Course program, starcraft pilot(s) may plot hypershunts of any distance, provided the start and end points and the path between lie within the Star Chart's bounds. If an appropriate Star Chart is unavailable, hypershunting distance must be restricted to the limit of a vessel's extreme Sensor range (10 x Effective Sensor Range).

PROGRAM SIZE AND COST CHART

Program	RUNNING SIZE		STORAGE SIZE	Cost (Elmonits)
	Processing Units	Memory Units	Memory or Reserve Units	
Necessary Program for All Starcraft:				
Systems Integrity and Maintenance (SIM)	(Control Point #) x 2	((Control Point #) – Crew) x 20 {may not be negative}	((Control Point #) – Crew) x 20 **OR** Control Point # x 2 {which ever is larger}	100K x (Control Point #)
Combat Programs:				
Targeting	(# of Weapon Mounts) + Launchers	0	(# of Weapon Mounts) + Launchers	10K x ((# of Weapon Mounts) + Launchers)
Tactics	Rating #	0	Rating #	10K + ((Rating #) x 10K)
Predict	Rating #	0	Rating #	10K + ((Rating #) x 5K)
Evade	Rating #	0	Rating #	10K + ((Rating #) x 2K)
Astrogation Programs:				
N-space Course	5	0	5	10K
Hyperspace Course	10	0	10	100K
Preset N-space Course	1	0	1	500 per LS of course
Preset Hyperspace Course	2	0	2	1K per LY of course
Star Chart	1	0	10 per 1000 cubic LY's	1K per 1000 cubic LY chart
Survey Programs:				
Star System Analysis	10	0	10 per vessel's Sensor Rating	1K per vessel's Sensor Rating
Planetary Analysis	8	0	8 per vessel's Sensor Rating	800 per vessel's Sensor Rating
Bio Analysis	6	0	6 per vessel's Sensor Rating	600 per vessel's Sensor Rating
Construct Analysis	4	0	4 per vessel's Sensor Rating	400 per vessel's Sensor Rating
Technical Reference Programs:				
Each	2	4	20	2K
Scientific Reference Programs:				
Each	10	20	100	20K
Database Reference Programs:				
General Reference	2	4	20 per race or planetary system covered	2K per race or planetary system covered
Archive Reference	10	20	100 per race or planetary system covered	10K per race or planetary system covered
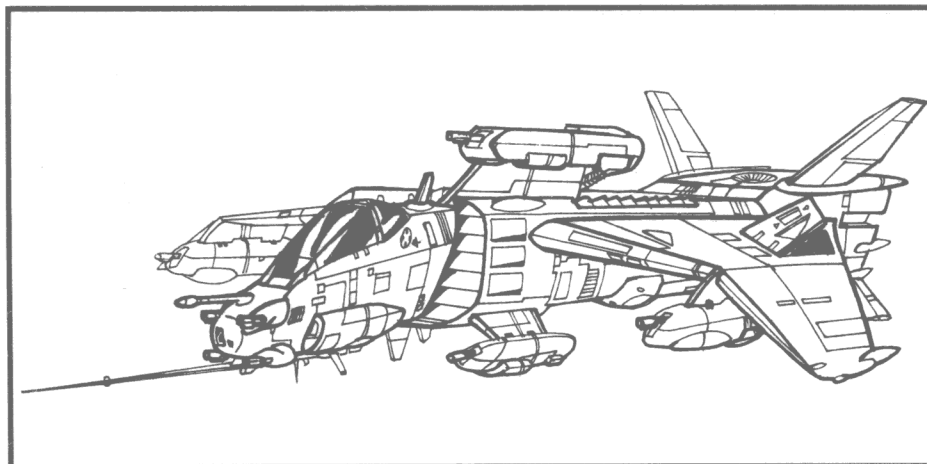
SURVEY PROGRAMS

Star System Analysis: This program allows detailed interpretation of Sensor data when a star system is being analyzed by a vessel's long (Effective) range Sensor capability.

Planetary Analysis: This program allows detailed interpretation of Sensor data when a planetary body (planet, moon, asteroid, etc.) is being analyzed by a vessel's medium range Sensor capability.

Bio Analysis: This program allows detailed interpretation of Sensor data when life forms (plants, animals, etc.) are being analyzed by a vessel's short range Sensor capability.

Construct Analysis: This program allows detailed interpretation of Sensor data when constructs (vessel's, buildings, installations, etc.) are being analyzed by a vessel's short range Sensor capability.

TECHNICAL REFERENCE PROGRAMS

There is a Technical Reference Program which corresponds to each of the Tech Skills found in **Space Master: The Role Playing Game**. These include: Mechanical, Weapons, Electrical, Computer, Power Systems, Criminological, Medical, Cybernetic, and Genetic Programs. Running the appropriate Technical Reference Program while repairs or constructions/modifications are underway will decrease the Difficulty or Severity Level of the repair/construction/modification by one level (not to be reduced below the lowest possible level).

SCIENTIFIC REFERENCE PROGRAMS

There is a Scientific Reference Program which corresponds to each of the Scientific and Engineering Skills found in **Space Master: The Role Playing Game**. They are too numerous to list here. Running the appropriate Scientific Reference Program while research is underway will decrease the Difficulty Level of that research by one level (not to be reduced below the lowest possible level).

DATABASE REFERENCE PROGRAMS

General Reference: An encyclopedic database, referenced by subject with multiple cross-references. Includes specific information on the race or planetary system that the program was designed to reference.

Archive Reference: An exhaustive encyclopedic database, referenced by research area, subject, and entry with voluminous cross-references. Includes very detailed and obscure information on the race or planetary system that the program was designed to reference. Archive Reference may be used as a Scientific Reference program for racial or system-specific research corresponding to that of the Archive Reference program.

10.5 ■■■■■■■
EXAMPLE OF COMPUTER PROGRAM PURCHASE

Sheri and Tod, who designed the "Ardent Sloor" in Section 9.12, now need to buy Computer Programs for their vessel. Let's listen in...

"All right," says Sheri, "Let's review the situation. The Sloor's Control Point number is 10. We designed it to be run by 5 crewmembers. That left us with a minimum Mk.50 Computer to install, which we did. In addition, we put in an Auxiliary Computer Mk.50, in case the main one goes down.

"Check," interjects Tod. "That all sounds familiar."

"OK then. Now we have to buy the Sloor's Computer Programs. Since we have two Mk.50 Computers (one Main and one Auxiliary), we'll buy two identical sets of programs and store one in each."

"I guess that makes sense," observes Tod. "What use is a back-up Computer with no programs to run? But hey! Like, let's just buy one set of programs and make copies. That must be easy."

"Forget it, Tod. The new ROMLOCKs prevent that sort of thing. Now, let's set down the parameters of a Mk.50 Computer. It has 50 Processing Units, 100 Memory Units and 500 Reserve Units. When programs are running, they'll occupy Processing Units and possibly Memory Units. When they're in storage, they'll occupy Memory or Reserve Units."

"Got it," says Tod, trying to follow along.

"Now, Tod, we are going to have to buy the Sloor's SIM Program, four Combat Programs, two Astrogation Programs for sure, and four Survey Programs. After that we can decide whether we want to buy some Technical Reference and Database Reference Programs just for kicks."

"Wow, sounds like a lot. I hope you're paying for this."

"Let's get started..."

SIM PROGRAM:

Running Size =
20 Processing & 100 Memory Units

Storage Size =
100 Memory or Reserve Units

Cost = 1000K Elmonits

TARGETING:

Running Size = 7 Processing Units

Storage Size =
7 Memory or Reserve Units

Cost = 70K Elmonits

Tod interrupts; "Targeting takes up 7 Units because we have four Firing Mounts, one Launcher, and two Payload Pallets which might carry an extra Missile Launcher each, right?"

"That's very good, Tod. Now we have to figure out our mix of Rated Combat Programs. Those are Tactics, Predict and Evade."

"Ooo!" exclaims Tod. "I've read about those. I want the Sloor to have lots of each!"

"We'll see about that." Sheri starts her calculations. With SIM and Targeting running simultaneously in combat, the number of Processing Units remaining equals 50 (the total), minus 20 (SIM), minus 7 (Targeting). That leaves 23 Processing Units free. Splitting these between Tactics, Predict and Evade, Sheri comes up with Tactics Rating 8, Predict Rating 7, and Evade Rating 8. Note that none of these programs could have exceeded Rating 10, as the Sloor's Sublight Drive Rating is 10.

TACTICS:

Running Size = 8 Processing Units

Storage Size =
8 Memory or Reserve Units

Cost = 90K Elmonits

PREDICT:

Running Size = 7 Processing Units

Storage Size =
7 Memory or Reserve Units

Cost = 45K Elmonits

EVADE:

Running Size = 8 Processing Units

Storage Size =
8 Memory or Reserve Units

Cost = 26K Elmonits

"There," declares Sheri, "the Sloor will have a Tactics bonus of 40, Predict bonus of 35, and an Evade bonus of 40."

"Could we have arrived at different bonuses?" asks Tod.

"Of course," says Sheri. "We could have had Tactics Rating 10, Predict 4 and Evade 9. Or any other combination adding to 23. I chose an 8-7-8 split because its more balanced. It will give us more flexibility in combat."

"Oh... I see." Tod says this though he dreams of having a killer ship with big Tactics and Predict bonuses. Fortunately, he doesn't tell Sheri.

"Now the non-combat programs."

N-space Course:

Running Size = 5 Processing Units

Storage Size =
5 Memory or Reserve Units

Cost = 10K Elmonits

Hyper-space Course:

Running Size = 10 Processing Units

Storage Size =
10 Memory or Reserve Units

Cost = 100K Elmonits

Star System Analysis:

Running Size = 10 Processing Units

Storage Size =
100 Memory or Reserve Units

Cost = 10K Elmonits

Planetary Analysis:

Running Size = 8 Processing Units

Storage Size =
80 Memory or Reserve Units

Cost = 8K Elmonits

Bio Analysis:

Running Size = 6 Processing Units

Storage Size =
60 Memory or Reserve Units

Cost = 6K Elmonits

Construct Analysis:

Running Size = 4 Processing Units

Storage Size =
40 Memory or Reserve Units

Cost = 4K Elmonits
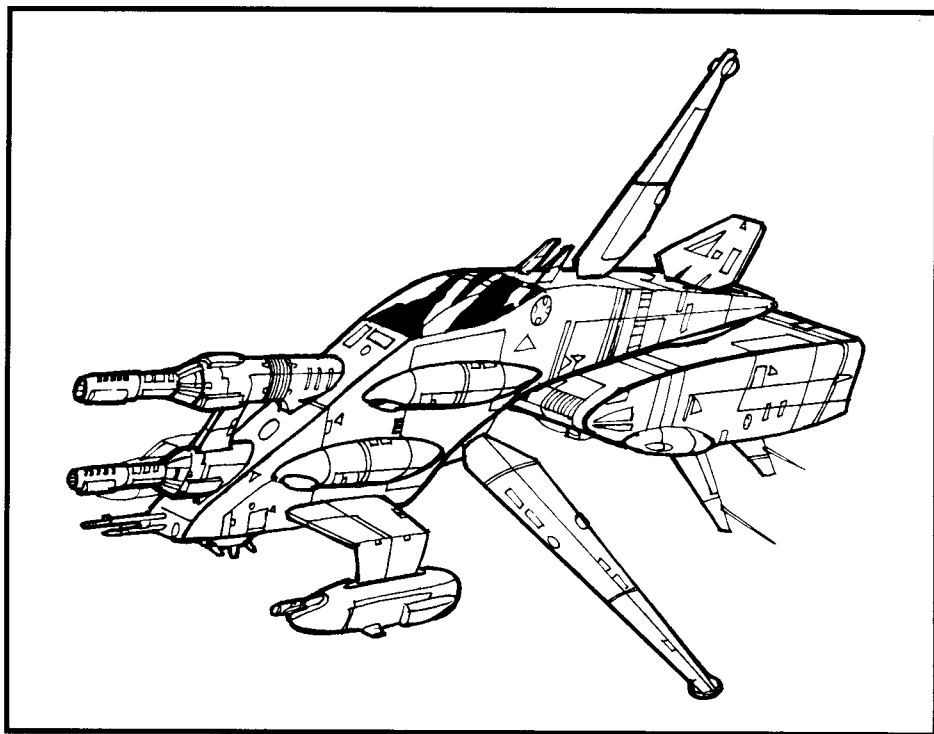
"Is that going to be everything we get?" asks Tod.

"We might be able to fit in more," replies Sheri. "Let's add up the Storage Size of everything we have so far."

Tod gets out his calculator and adds the Storage Size of all the programs they've purchased so far. He arrives at a total of 425 Units. "Wow, if all our programs were in storage, which would be the case if the Sloor was docked and shut down, there would only be 75 Reserve Units left."

"And don't forget the 100 Memory Units," says Sheri. "That means we could buy 175 more Units worth of programs if we'd like."

*"OK," says Tod, as he pulls the Player Book out of his **Space Master: The Role Playing Game** box. "Let's get these Technical Reference Programs: Mechanical, Weapons, Computer, and Power Systems.*

MECH TECH, WEAP TECH, COMP TECH, AND POWER SYS TECH — EACH:

Running Size =
2 Processing & 4 Memory Units each

Storage Size =
20 Memory or Reserve Units each

Cost = 2K Elmonits each
= 8K Elmonits total

Sheri finishes the calculations. "Well, the storage size of those four Tech Programs equals 80 Units. That leaves us with 95 left. We had better stop here. Those remaining 95 Units could come in handy if we have to pick up some Star Charts or Databases later on."

"Sounds good, Sheri, but what's the final cost?"

Sheri does the addition and declares; "Well, one complete set of these programs will set us back 1,377,000 Elmonits. But we need two complete sets of programs, considering our Auxiliary Computer. That's a total of 2,754,000 Elmonits. Adding that to the (unloaded) cost of the Sloor that we calculated in Section 9.12, we'll need 14,184,200 Elmonits

Tod's eyes roll up into the back of his head and he passes out.

COMPUTER PROGRAM INVENTORY RECORD					
	RUNNING SIZE		STORAGE SIZE		
Program	Processing Units	Memory Units	Memory Units	Reserve Units	Cost (Elmonits)

STARCRAFT MAINTENANCE AND REPAIR

Your starcraft will require constant monitoring and periodic maintenance in order to run smoothly. However, occasional breakdowns will be the norm for such a complex system. The less attentive or apt your technicians are, the more frequent any given malfunction will be. Also, if your starcraft enters combat, you can expect some level of damage to accrue.

This section deals with starcraft maintenance procedures and the repair of system malfunctions and combat damage in the campaign setting. Automatic Damage Control rules are given in the Standard Game Damage section, but your vessel's Damage Control units are very limited in what they are able to handle. Between fights in a multi-scenario game, or between flights in an on-going role playing campaign, some level of repair may be necessary.

There will often be references in this section to various skills not covered by the **Star Strike** rules. These particular skills are fully detailed in **Space Master: The Role Playing Game**. For the purposes of those persons using **Star Strike** alone, assume all crewmembers possess the relevant skills at a +50 bonus.

11.1

MAINTENANCE

No matter how well a starcraft is maintained, there exists a set 2% chance that over a period of ten days, a malfunction of some sort will occur. If normal maintenance requirements are not met, this 2% per ten day chance increases proportionally as described below.

During the Starcraft Construction process, a decision is made as to the number of crewmembers manning a particular vessel (Section 9.7). If this crew requirement is not met for a given ten day period, increase the probability of a malfunction occurring by the percentage of the crew that is not available.

Example: *The Ardent Sloor has a required crewmember number of 5. If, over a ten day operating period, only 4 crewmembers are aboard, fit and working, the malfunction probability rises by 20% (one out of five), to a total of 22% (2 + 20).*

In addition, starcraft crewmembers must be adept at their respective jobs. Any given crewmember must have at least one Piloting, Astrogation, or Tech skill bonus of over 25. If a vessel crewmember has no appropriate skill bonus over 25, he may not be counted towards the required crew total for determining malfunction probabilities.

Finally, the technical crew of any vessel must be able to cover the full spectrum of shipboard systems. Therefore if qualified (bonus of 26+) technicians are unavailable for any one of the following technical areas, the malfunction probability will increase. Starcraft technical areas include: Mechanical Technics, Weapon Technics (if vessel has weapons), Electronic Technics, Computer Technics and Power System Technics. For each skill not covered by the technical crew over a ten day period, add +20 to the malfunction probability.
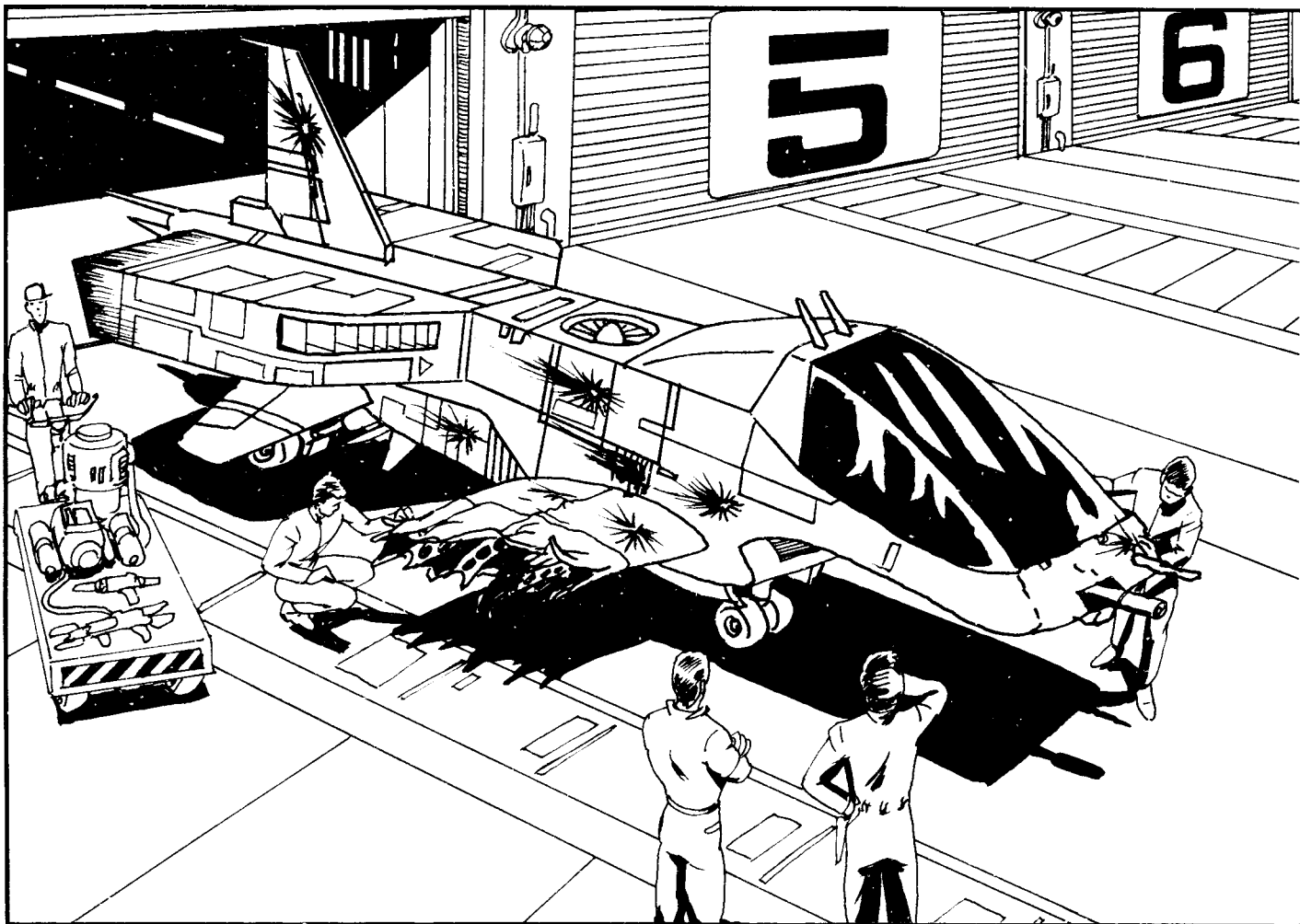
Note: *The preceding calculations assume vessel operating times in excess of ten days. For operating periods of less than ten days (which would be the case for many smaller starcraft), maintenance may be performed by non-crewmembers who had access to a docked, or otherwise non-operating vessel for at least one day out of ten. The number of non-crewmember technicians required for such dockside maintenance equals: 1, **or** the starcraft's tonnage divided by 500, whichever is greater.*

Malfunction Chance every 10 days =

2%

\+ (percentage of normal qualified crew that is unavailable)

\+ (20% per technical area not covered by a qualified crewmember)

11.2 ∎
MALFUNCTIONS

A malfunction can occur in one of three ways:

- Due to a malfunction probability roll based on maintenance (Section 11.1)

- Due to a poor maneuver roll when using the *Starcraft Maneuver Table* (Section 13.2)

- Due to a combat critical result (Section 20.0)

When attempting to repair malfunctions of greater severity than Routine, determine the relevant Tech Skill area(s) required for the repair. Make a Static Action Open-ended Roll, adding the Tech Skill bonus (if more than one Skill is involved, average the bonuses) and cross index the modified result on the *Repair Damage/Malfunction Table* 11.5. In addition, multiple technicians may work on the same malfunction. In this case, designate a "Chief" technician whose bonuses will form the basis of the repair roll modifier, and for each extra qualified technician on the team, add +2 to the roll. A qualified technician is one whose bonus in a Tech Skill exceeds 25.

The severity of a malfunction sets the limit on the number of extra technicians allowed to contribute to a Repair Roll. These limits appear on the following chart:

Malfunction Severity	Maximum number of extra technicians allowed on repair team
Routine	0
Light	1
Medium	2
Severe	4
Very Severe	8
Extremely Severe	16

There are three main aspects of any malfunction:

- **Where it occurs:** Unless otherwise specified, you must determine where a malfunction occurs. To do this, first roll 1D10 and refer to the following chart to randomize a general system Area. Then roll 1D100 and refer to the *Malfunction Table* 11.4 to determine the exact nature of the malfunction.

Note: *If a Random Malfunction Area/Sub-area roll indicates a system that the starcraft in question does not possess, treat the result as "No Malfunction". This reflects the fact that the simpler a multi-system, the less prone it is to breakdown.*

Roll	Area containing Malfunction
1	Electro/Neutrino
2	Drives
3	Armaments
4	Hull
5	Power
6	Control
7	Additional Facilities
8	Auxiliary Systems
9	Life Support
10	Special: roll 1D10 Malfunctions (ignore further rolls of 10)

- **How severe it is:** If the severity of the malfunction is unspecified, roll 1D10:

Roll	Severity
1-5	Routine
6	Light
7	Medium
8	Severe
9	Very Severe
10	Extremely Severe

- **What skills are required to repair it:** If the Malfunction is merely Routine, no Tech skill is required to fix the problem. Otherwise, you will find the Tech skill(s) required for repairs at the end of each result on the *Malfunction Table* 11.4.

11.3 ∎
DAMAGE

As a result of combat, sabotage, or other deliberate means, certain starcraft systems may be subject to damage of various severities. The severity levels of damage are identical to those ascribed to malfunctions, and thus the same table is used to resolve repair attempts.

All restrictions governing malfunction repair procedures apply to damage repair, including technician team limits and skill qualification level (a 26+ Skill Bonus minimum). The particular Tech Skill required to repair damage should be self evident, but when questions arise, refer to the *Malfunction Table* 11.4 as a guide.

Repairs may occasionally require a CIP expenditure. CIP stands for Cost In Parts, and is the percentage of the parent unit cost which must be expended to bring about the desired repair. As explained in the *Starcraft Construction Procedure* (Section 9.8), Workshops may stock a limited quantity of abstracted "Parts" which may be used to bring about these repairs.

Starcraft Concussion Hit damage may be repaired by making a Mech Tech Repair Roll and referring to the last column (entitled "Hits Repaired per 25 Hour Period") on the *Repair Damage/Malfunction Table* 11.5. A repair team may be used, with the number of technicians limited to 1, or the starcraft's mass divided by 500, which ever is greater.
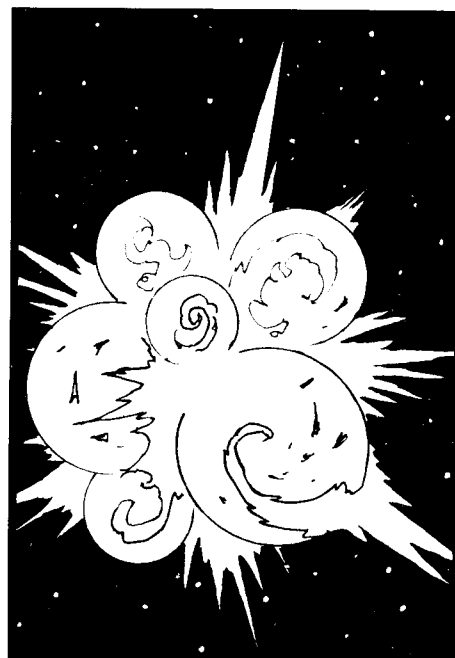
Malfunction Table 11.4

	(1) Electro/Neutrino	(2) Drives	(3) Armaments	(4) Hull	
01-05	Microfrequency Rig dysfunction. Reduce Microfreq Mk.# by one half. (Mech or Elec Tech)	Sublight Drive Maneuvering Thrusters reduced. Reduce vessel's Maneuvering Thrust by 10%. (Mech T.)	Auto Cannon Firing Mechanism breakdown. 1 Auto Cannon is unable to discharge. (Mech/Weap Tech)	Air Lock pressure leak. One air lock is unusable if two separate atmosphere types are involved. (Mech Tech)	
06-10	Microfrequency Rig breakdown. Microfreq Rig unusable. (Elec Tech)	Sublight Drive Maneuvering Thrusters reduced. Reduce vessel's MT by 25%. (Mech/Power Tech)	Auto Cannon Magazine jam. One Auto Cannon is unable to discharge. (Mech or Weap Tech)		
11-15	Tight Beam Laser Rig dysfunction. Tight Beam receiver loses one ability: audio, visual, or facsimile production. (Mech/Elec Tech)	Sublight Drive Maneuvering Thrusters reduced. Reduce vessel's Maneuvering Thrust by 50%. (Power Tech)	Energy Cannon Firing Mechanism capacitance dysfunction. One Energy Cannon may fire only once every other round. (Weap Tech)		
16-20	Tight Beam Laser Rig misfunction. Double time necessary to align Tight Beam Rig for transmission or reception (Mech/Elec Tech)	Sublight Drive Maneuvering Thruster breakdown. Vessel may not turn by using Maneuvering Thrusters. (Mech Tech)	Energy Cannon Firing Mount capacitance dysfunction. All Energy Cannons of 1 Firing Mount may only fire once every other rnd. (Weap Tech)		
21-25	Tight Beam Laser Rig breakdown. Tight Beam Rig unusable. (Elec Tech)	Sublight Drive MSA reduction. Reduce vessel's MSA by 10%. (Mech Tech)	Energy Cannon Firing Mechanism partial dysfunction. One Energy Cannon drops in effective Mk.#'s by 10. (Weap Tech)	Bay Doors jam. One set of Fighter/Shuttle/Vehicle Bay doors jam in their current configuration (open/closed). (Mech Tech)	
26-30	Tachyon Beam Dictor dysfunction. Reduce TBD Mk.# by 1D10. (Elec Tech)	Sublight Drive MSA reduction. Reduce vessel's MSA by 25%. (Mech/Power Tech)	Energy Cannon Firing Mount partial dysfunction. All Energy Cannons of one Firing Mount drop in effective Mk.#'s by 10. (Weap Tech)		
31-35	Tachyon Beam Dictor dysfunction. Reduce TBD Mk.# by 2D10. (Elec Tech)	Sublight Drive MSA reduction. Reduce vessel's MSA by 50%. (Power Tech)	Energy Cannon Firing Mechanism breakdown. One Energy Cannon unable to discharge. (Weap Tech)		
36-40	Tachyon Beam Dictor dysfunction. Reduce TBD Mk.# by a half. (Elec Tech)	Sublight Drive MSA breakdown. Vessel may only accelerate along a single vector. (Mech Tech)	Energy Cannon Firing Mount break-down. All Energy Cannons of 1 Firing Mount unable to discharge. (Weap T.)		
41-45	Tachyon Beam Dictor failure. TBD unusable. (Elec Tech)	Sublight Drive Power Routing short. Maneuvering Thrusters & MSA reduced by 1-100% each. (Power T.)	Mass Energy Cannon Firing Mechanism breakdown. 1D10 Energy Cannons unable to discharge. (Weap T.)	Electro-magnetic Ramscoop fails. Vessel may not replenish fusion reactor fuel storage unit while traveling through N-space. (Mech/Elec Tech)	
46-50	Tachyon Beam Dictor failure. TBD unusable. (Elec Tech)	Sublight Drive shutdown. Maneuvering Thrusters and MSA inoperable. (Mech/Power Tech)	Mass Energy Cannon Firing Mechanism breakdown. 2D10 Energy Cannons unable to discharge. (Weap T.)		
51-55	Sensor flicker. Sensors inoperative every other round. (Mech or Elec Tech)	Translight Drive efficiency deteriorated. Drive consumes twice the Andrium necessary. (Power Tech)	Turret Firing Mount/Launcher jam. Firing Mechanism(s)/Missiles of one Turret unable to discharge. (Mech/Weap Tech)		
56-60	Sensor efficiency reduction. Reduce Sensor Rating by 1D10. (Elec Tech)	Translight Drive deficiency. Vessel's translight displacement reduced 10%. (Mech Tech)	Turret Firing Mount/Launcher jam. The Firing Mechanism(s)/Missiles of one Turret unable to discharge. (Mech/Weap Tech)		
61-65	Sensor failure. Sensors unusable. (Elec Tech)	Translight Drive deficiency. Vessel's translight displacement reduced 25%. (Power Tech)	Flexible Firing Mount/Launcher jam. Firing Mechanism(s)/Missiles of Flexible mount unable to discharge. (Mech/Weap Tech)	External Visual Monitors short out. Control Area/Bridge crew may not visually perceive events outside of the vessel. (Mech Tech)	
66-70	Electronic Warfare dysfunction. Reduce EW Rating by 1D10. (Elec Tech)	Translight Drive deficiency. Vessel's translight displacement reduced 50%. (Power Tech)	Missile Launcher Magazine jam. One Missile Launcher may not discharge. (Mech or Weap Tech)		
71-75	Electronic Warfare performance reduction. Reduce EW Rating by a half. (Elec tech)	Translight Drive shut down. Vessel may not engage drive. If craft in Hyper-space, it drops into N-space. (Mech/Power Tech)	Payload Pallet System Link breakdown. One Payload Pallet load unable to function. (Mech/Weap Tech)		
76-80	Electronic Warfare breakdown. EW unusable. (Elec Tech)	Translight Drive run away. If craft in Hyper-space, drive runs until Andrium is exhausted. (Mech/Power Tech)	Mass Payload Pallet dysfunction. 1D10 Payload Pallet loads unable to function. (Mech/Weap Tech)		
81-85	Deflector Screen Generator performance degradation. Reduce Screen Rating by 1D10. (Elec Tech)	RIF breakdown. Craft may not exceed a Maneuvering Thrust of 1, may not engage MSA and may not enter Hyper-space. Vessel has 1-10 rounds to comply to these restrictions, or it is destroyed.	Heads Up Display short. One HUD unit unusable. (Elec/Weap Tech)	Inter-compartmental Bulkhead Doors jam. 1-10 sets of blast doors jam in their current configuration (open/closed). (Mech Tech)	
86-90	Deflector Screen Generator breakdown. Screens unusable. (Elec T.)		Mass Heads Up Display short out. 1D10 HUD units unusable. (Elec/Weap Tech)		
91-93	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Tractor Beam out. One Tractor Beam is unusable. (Mech/Elec Tech)	Other / Gamemaster's discretion.	
94-95	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Mass Tractor Beam failure. 1D10 Tractor Beams unusable. (Mech/Elec Tech)	Other / Gamemaster's discretion.	
96-100	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	

LOCATION ROLL

Roll	Area containing Malfunction
1	Electro/Neutrino
2	Drives
3	Armaments
4	Hull
5	Power
6	Control
7	Additional Facilities
8	Auxiliary Systems
9	Life Support
10	Special: roll 1D10 Malfunctions (ignore further rolls of 10)

SEVERITY ROLL

Roll	Severity
1-5	Routine
6	Light
7	Medium
8	Severe
9	Very Severe
10	Extremely Severe

Note: If a Random Malfunction Area/Sub-area roll indicates a system that the starcraft in question does not possess, treat the result as "No Malfunction". This reflects the fact that the simpler a multi-system, the less prone it is to breakdown.

Malfunction Table 11.4

	(5) Power	(6) Control	(7) Addit. Facilities	(8) Auxiliary Sys.	(9) Life Support
01-05	Power Conduit degradation. Maneuvering Thrust reduced by 1D5. (Power Tech)	Gunner Station breakdown. One Weapon Mount loses direct Gunner control function. (Mech Tech)	Stateroom Hygienic Facilities break down. 1D5 First Class, Standard, or Low/Military Staterooms lose their hygienic facilities. (Mech Tech)	Auxiliary Sublight Drive dysfunction. Rating reduced by half. (Mech/ Power Tech)	Food Processor fails. No food available for crew. (Mech Tech)
06-10	Power Conduit degradation. MSA reduced by half. (Power Tech)	Mass Gunner Station breakdown. 1D10 Weapon Mounts lose direct Gunner control function. (Mech/Power Tech)	Stateroom lighting fails. 1D5 Staterooms lose their lights. (Mech Tech)	Auxiliary Translight Drive breakdown. System unusable. (Mech/Power Tech)	
11-15	Capacitor failure. One Energy Weapon unusable. (Power Tech)	Central Gunnery Control dysfunction. All weapons fired by Central Gunnery Control (via Targeting Program) are at -25. (Comp Tech)	Recreational Facility dysfunction. Facility may only accommodate half of its designed capacity. (Mech/Elec Tech)	Auxiliary RIF Generator fails. System unusable. (Mech/Elec Tech)	Temperature Maintenance dysfunction. Atmospheric temperature rises by 1 Centigrade degree per minute. (Mech/Elec Tech)
16-20	Mass Capacitor failure. All Energy Weapons of one Firing Mount unusable. (Power Tech)	Helm performance reduction. Maneuvering Thrust expenditure may only be altered by 1 MT per round. (Mech/Elec Tech)	Recreational Facility breakdown. Recreational Facility unusable. (Mech/ Elec Tech)	Auxiliary Microfrequency Rig fails. System unusable. (Mech/Elec Tech)	
21-25	Firing Mount Power Feed dysfunction. One Firing Mount unusable. (Power Tech)	Helm performance reduction. MSA maneuvering at -25. (Mech/Elec Tech)	Sick Bay dysfunction. Sick Bay capacity reduced by 1D5 patients. (Mech/Elec Tech)	Auxiliary Tight Beam Laser Rig breakdown. System unusable. (Mech/Elec Tech)	Temperature Maintenance dysfunction. Atmospheric temperature lowers by 1 Centigrade degree per minute. (Mech/Elec Tech)
26-30	Mass Turret Power Feed breakdown. 1D10 Turrets unusable. (Power Tech)	Helm control lost. Vessel may not perform maneuvers, and may not move except along a single vector. (Elec Tech)	Sick Bay facility failure. Sick Bay capacity reduced by 2D10 patients. (Mech/Elec Tech)	Auxiliary TBD Rig dysfunction. Mk.# reduced by half. (Mech/Elec Tech)	
31-35	Mass Firing Mount Power Feed breakdown. 2D10 Firing Mounts unusable. (Power Tech)	Communications down. No Communications Rigs may be used. (Elec Tech)	Sick Bay power failure. Sick Bay capacity reduced to 0. (Power Tech)	Auxiliary TBD Rig breakdown. System unusable. (Mech/Power Tech)	Atmosphere Processor dysfunction. Toxic gasses released into vessel's atmosphere, killing crew in 1D10 days. (Mech Tech)
36-40	Power Feed failure. One Tractor Beam unusable. (Power Tech)	Sensor control lost. Sensor displays spew erroneous information. (Elec Tech)	Lab dysfunction. One Lab has its research bonus reduced by a half. (Mech/Elec Tech)	Auxiliary Sensor failure. System unusable. (Mech/Elec Tech)	
41-45	Power Conduit degradation. One Communications Rig unusable. (Power Tech)	Electronic Warfare control lost. Electronic Warfare value may only be applied to DB of vessel; special EW capabilities unusable. (Elec/Power Tech)	Mass Lab dysfunction. 1D5 Labs have their research bonuses reduced by a half each. (Elec/Power Tech)	Auxiliary EW failure. System unusable. (Mech/Elec Tech)	Atmosphere Processor fails. Crew will die in 2D10 hours. (Mech Tech)
46-50	Power Conduit failure. Sensors unusable. (Power Tech)	Screen control lost. Screen orient-ation may not be changed. (Elec Tech)	Lab breakdown. One lab unusable. (Mech/Elec Tech)	Auxiliary Screen breakdown. (Mech/Elec Tech)	
51-55	Power Conduit dysfunction. Electronic Warfare reduced by a half. (Power Tech)	Environmental control erratic. Vessel's Life Support Environment maintenance function goes haywire, causing random and constantly fluctuating atmospheric conditions. (Mech/Elec Tech)	Workshop breakdown. Workshop unusable. (Mech/Power Tech)	Auxiliary Computer dysfunction. Effective Mk.# reduced by 2D10. (Elec/ Comp Tech)	Cryogenic Berth dysfunction. Occupant of one Cryogenic Berth will die in 1D10 hours. (Mech Tech)
56-60	Power Trunk failure. Deflector Screens drop to an effective Rating of 0. (Power Tech)	Bay Door control lost. All Fighter/ Shuttle/Vehicle Bay doors jam in their present configuration (open/closed). (Mech/Elec Tech)	Fighter Bay maintenance facility failure. 1 Fighter Bay may not be used for maintenance or repairs of vessels. (Mech/Power Tech)	Auxiliary Computer failure. System unusable. (Mech/ Comp Tech)	
61-65	Electro/Neutrino Power distribution failure. Sensor, Electronic Warfare and Screen Ratings all drop by 2D10 each. (Power Tech)	Automatic Damage Control capability lost. Vessel may not engage in any automatic Damage Control activities. (Mech/Elec Tech)	Mass Fighter Bay maintenance facility failure. 1D10 Fighter Bays may not be used for maintenance or repairs of vessels. (Mech/Power Tech)	Auxiliary Control Area breakdown. System unusable. (Elec/Power Tech)	Multiple Cryogenic Berth failure. Occupants of 1D10 Cryogenic Berths will die in 2D10 hours. (Mech/Elec Tech)
66-70	Computer Power failure. Computer shuts down. (Power Tech)	Computer performance degraded. Reduce Computer Mk.# by 1D10. No Programs lost, but those in Storage are inaccessible (Elec Tech)	Fighter Bay containment breakdown. 1 Bay may no longer safely store its vessel. A vessel already so stored has 1 hr to be moved before being subject to random malfunction. (Mech Tech)	Auxiliary Life Support failure. System unusable. (Mech/Power Tech)	
71-75	Andrium supply becomes unstable. All Andrium will explosively annihilate itself, destroying vessel, in 1D5 minutes. Andrium may be dumped before that time if malfunction is not repaired. (Power Tech)	Computer performance degraded. Reduce Computer Mk.# by 2D10. No Programs lost, but those in Storage are inaccessible. (Elec/Comp Tech)	Shuttle/Vehicle Bay maintenance facility failure. 1 Bay may not be used for maintenance, repairs or storage. A construct already so stored has 1 hr to be moved before it is subject to a random malfunction. (Mech Tech)	Multiple Auxiliary Unit failure. 1D5 Auxiliary systems unusable. (Mech/ Power Tech)	Mass Cryogenic Berth failure. Occupants of 1D100 Cryogenic Berths will die in 3D10 hours. (Mech/Elec Tech)
76-80	Power Trunk to Life Support fails. Crewmembers will perish in 1D10 hours. (Power Tech)	Computer performance degraded. Reduce Computer Mk.# by a half. No Programs lost, but those in Storage are inaccessible. (Comp Tech)	Cargo Hold dysfunction. Environmental control in one cargo hold lost. (Mech/Power Tech)	Other / Gamemaster's discretion.	
81-85	Lighting Power dysfunction. All vessel lighting fails. (Power Tech)	Computer down. No Programs may be run in the Processor. (Comp Tech)	Cargo Hold containment integrity lost. Random cargo in 1 Cargo Hold takes a random malfunction. (Mech Tech)	Other / Gamemaster's discretion.	Water Supply poisoned. Water supply aboard vessel will become unusable in 1D10 hours. (Mech Tech)
86-90	Reactor shuts down. No power available for any systems.(Power Tech)	Computer dysfunction. Any Programs run in Processor are lost. (Comp Tech)	Landing Gear collapses and is incapable of supporting vessel. (Mech T.)		
91-100	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Other / Gamemaster's discretion.	Other / GM's discretion.	Other / GM's discretion.

11.5 REPAIR DAMAGE/MALFUNCTION TABLE

	ROUTINE (1-5)	LIGHT (6)	MODERATE (7)	SEVERE (8)	VERY SEVERE (9)	EXT. SEVERE (10)	Hits Repaired Per 25 Hr Period
-151	Sad job. Dam/Mal becomes Very Severe after 1 Round.	Dam/Mal becomes Very Severe after 1 Round.	You deliver 10 pts. of damage to the system. Roll again.	You deliver 30 pts. of damage to the system. Repair on Extremely Severe column.	You deliver 150 Hits to the system. System is a write off.	System is destroyed (explosively if possible). 100% repair team casualty rate.	−100
(-150) – (-101)	Dam/Mal becomes Severe after 4 Rounds.	Dam/Mal becomes Severe after 5 Rounds.	Dam/Mal becomes Extremely Severe after 1 minute.	Dam/Mal becomes Very Severe after one hour. Waste 10% CIP.	System is a write off after 2 hours of tinkering.	1–100% of repair team becomes casualties. System destroyed.	-10. Roll for random malfunction.
(-100) – (-51)	Dam/Mal becomes Moderate after 4 Rounds.	Dam/Mal becomes Moderate after 6 Rounds.	Dam/Mal becomes Very Severe after 2 minutes.	Dam/Mal becomes Very Severe after 6 Rounds.	Dam/Mal upgraded to Extremely Severe after 1 hour.	2 members of repair team takes appropriate "D" critical strike.	-5. Roll a Random "E" Crit on a repair team member.
(-50) – (-26)	Dam/Mal becomes Light after 3 Rounds.	20 minutes with 5% CIP. Otherwise 30 minutes.	Dam/Mal becomes Severe after 1 minute.	3 hours to repair with 10% CIP.	72 hours to repair with 50% CIP.	1 member of repair team takes appropriate "C" critical strike.	-1. Roll for random malfunction.
(-25)-0	You fumble with device for 5 minutes until it is working again.	10 min. to repair unit. Unit operates at -25% with a Routine malf.	40 minutes to repair with 10% CIP. You overload circuits causing a random malfunction.	2 hours to repair with 10% CIP.	48 hours to repair with 50% CIP.	1–100 Hits to system. Try again.	0
01-20	3 minutes to repair.	8 minutes to repair.	30 minutes to repair damage with 10% CIP. Malfunction repaired at no cost.	90 minutes to repair damage with 10% CIP. 60 minutes to repair malfunction with 10% CIP.	36 hours to repair unit to 50% effectiveness, 48 hours to fully repair. 50% CIP.	Repair may not be attempted until 2 Severe procedures are completed.	1
21-40	2 minutes to repair.	5 min. to repair. Routine malf. will occur next time system is used.	20 minutes to repair with 10% CIP.	1 hour to repair with 10% CIP.	25 hours to repair with 25% CIP.	200 hours to repair with 50% CIP.	3
41-55	1 minute to repair.	5 minutes to repair.	15 minutes to repair with 5% CIP. 25 min. otherwise.	1 hr. to repair damage, 10% CIP. Malf repaired, no cost.	24 hours to repair with 25% CIP.	120 hours to repair with 50% CIP.	5
56-65	5 Rounds to repair.	5 minutes to repair.	13 minutes to repair with 5% CIP. 25 min. otherwise.	55 min. to repair damage with 10% CIP. Malfunction repaired without cost.	24 hours to repair damage with 25% CIP. Malfunction repaired without cost.	110 hours to repair to 50% effectiveness. 120 hours to repair fully. 50% CIP.	8
66-75	5 Rounds to repair.	5 minutes to repair.	12 minutes to repair. Dam/Mal becomes Light after 1 Round.	50 min. to repair damage with 10% CIP. Malfunction repaired without cost.	18 hours to repair damage with 25% CIP. Malfunction repaired without cost.	110 hours to repair with 50% CIP.	12
76-85	4 Rounds to repair.	4 minutes to repair.	10 minutes to repair.	45 min. to repair damage with 10% CIP. Malf repaired by 2 Light procedures.	16 hours to repair with 10% CIP.	100 hours to repair with 50% CIP.	17
86-95	4 Rounds to repair.	4 minutes to repair.	9 minutes to repair.	40 minutes to repair with 5% CIP.	15 hours to repair with 10% CIP.	90 hours to repair damage with 50% CIP. Malfunction repaired without cost.	25
96-105	3 Rounds to repair.	3 minutes to repair.	8 minutes to repair.	40 minutes to repair.	13 hours to repair damage with 10% CIP. Malfunction repaired without cost.	Repair reduced to 2 Moderate procedures.	35
106-115	3 Rounds to repair.	2 minutes to repair.	7 minutes to repair damage. 6 minutes to repair malfunction.	30 minutes to repair with 5% CIP. 40 minutes to repair otherwise.	10 hours to repair unit to 50% capacity. 11 hours to repair fully. 10% CIP.	80 hours to repair with 50% CIP.	50
116-125	2 Rounds to repair.	2 minutes to repair.	You isolate 3 Routine procedures to repair unit. Start next Round.	30 minutes to repair.	8 hours to repair. 10% CIP.	70 hours to repair damage with 50% CIP. Malfunction repaired without cost.	100
126-135	2 Rounds to repair.	6 Rounds to repair.	5 minutes to repair.	25 minutes to repair.	5 hours to repair. 10% CIP.	70 hr. to repair damage or 60 hr. to repair malf. Both have 25% CIP.	200
136-145	You may use equipment next Round.	4 Rounds to repair.	Unit at -25% in 3 minutes. Unit repaired in 5 minutes.	20 minutes to repair.	5 hours to repair damage with 10% CIP. Malfunction is downgraded to Severe.	60 hours to repair to 50% effectiveness. 70 hours to repair fully. 25% CIP.	400
146-155	Unit ready next Round.	3 Rounds to repair.	Unit at -50% in 6 Rounds. Unit repaired in 5 minutes.	20 minutes to repair damage. Malfunction repair is 3 Routine procedures.	4 hours to repair. 10% CIP.	50 hours to repair with 25% CIP.	800
156-165	Unit ready. You have 1/2 Rnd left.	2 Rounds to repair.	3 minutes to repair.	Downgrade repair to Moderate after 5 minutes.	3 hours to repair. 10% CIP.	Procedure reduced to 2 Severe repair procedures.	1300
166+	Quick adjustment. You have the full Round to act.	1 Round to repair.	2 minutes to repair.	10 minutes to repair.	Reassesment of systems shows 2 Light repairs are required.	40 hours to repair with 25% CIP.	2000

Note 1: If only one person is working on a repair, double the times listed. Double the necessary time if no repair scanner or diagnostic computer is used during the repair.

Note 2: CIP refers to the Cost-in-Parts. This is the indicated percentage of the parent unit cost which must be invested to bring about the desired repair. The CIP of Concussion Hit repair equals the percentage cost of the vessel's Hull repaired.

SPACE MASTER: STAR STRIKE AND THE ROLE PLAYING GAME

Space Master: Star Strike, and *Space Master: The Role Playing Game* are components in a gaming trilogy (*Space Master: Armored Assault* being the third and final release in the series). As such, *Star Strike* and *The RPG* are completely compatible. They use the same 10 second Battle Round; *The RPG* skills are used throughout *Star Strike*; and the *Star Strike* weapon listings, which start at Mk.6, are extensions of *The RPG* weapons which cover Mk.1 to Mk.5. *Star Strike* and *The RPG* are so completely integrated, in fact, that it is possible to carry on a ship-board melee while the ship is fighting other vessels.

Below are two combat Round sequences shown for comparative purposes: one from *The Role Playing Game*, and the other from *Star Strike*'s Standard Game. Note when actions from the two games occur coincidentally.

The Role Playing Game Combat Round Sequence	Star Strike Combat Round Sequence
1) Psion Casting Phase	1) —
2) Psion Results Phase	2) —
3) Psion Orientation Phase	3) —
4) Fire Phase (A)	4) Missile/Torp Launch Phase
5) Fire Results Phase (A)	5) —
6) —	6) Initiative Phase
7) Movement/Maneuver Phase	7) Movement/Maneuver Phase
8) Fire Phase (B)	8) Projectile/Energy Fire Phase
9) Fire Results Phase (B)	9) Missile/Torp Results Phase
10) Melee Phase	10) —
11) Melee Results Phase	11) —
12) Final Orientation Phase	12) Final Orientation Phase

12.1
PLAYER CHARACTERS IN STAR STRIKE

Characters from *The Role Playing Game*, particularly Astronauts and Techs, should have no trouble taking a seat in the Pilot's chair or the Gunner's crib in *Star Strike*. All the Skills mentioned in *Star Strike* are taken right out of *The RPG* Player Book. When resolving an action, like making the Combat Pilot OB/DB split, or firing a Heavy Energy Projector, just use your character's bonuses instead of those randomly rolled on the generation charts. When repairs are required, use your character's appropriate Tech Skill bonuses.

In fact, if you are ambitious enough **and** the GM allows it, you can game out combat repairs by Techs during a fight as they race to the various parts of the vessel to effect repairs. By making successful maneuver rolls, characters may switch functions and locations within a starcraft as situations warrant.

But what happens when the vessel occupied by a player character is Disabled or Destroyed?

Unless a critical result states that there are no survivors due to combat damage, a GM may assume that all players abandon ship automatically in Life Pods. If the GM wishes, he can have each player make a maneuver roll to see if he/she gets out in time. Thus, players should not fear for their lives every time they take their SMAC Fighters up against enemy cruisers. However even if they fail in their individual missions, they should hope that their side wins.

Note: *Life Pods are integral parts of any starcraft and each has a homing beacon which will allow friendly (or enemy!) forces to pick them up after a battle. Life Pods will Drift normally on the Map, based on their parent craft's Acquired Momentum.*

12.2
EXPERIENCE POINT GUIDELINES

Players of *Space Master: The Role Playing Game* and *Star Strike* should refer to pages 22-23 of the *Player Book* (Table 5.2) to determine how many experience points their Gunners get when they "Kill" an enemy vessel. However, the following Kill Point modifiers are suggested:

1/5x ....foe Disengages
1/2x ....foe is only Disabled
1x ....foe is Destroyed

BUYING STARCRAFT

The purchase of a space-capable vehicle is usually the most important financial investment anyone in the universe of *Space Master* is going to make. Not only is it immediately traumatic to the old Elmonit account, it is a complex operation often involving loans, registrations, payment plans, and other tedious unpleasantries. Starcraft — especially interstellar models — are beyond the means of most PCs, even with the most generous loan setups.

Should a character come into a lot of money, however, the following section deals with the options available. The last section, *Registration*, should also be of interest to those who come by a ship through other means.

Credit

A frequent alternative to saving up the megamonits required for an outright purchase, potential buyers have a few credit options. Provincial banking systems offer a fixed interest rate, which at Imp. 470-480 is around a 10% annual rate. The payment period is usually 10 to 20 years, with payments due every 35 days, (payable through any MERLOGH transactor of course).

Standard Models

Purchasing your starcraft off the assembly line is going to mean paying about 75% of what you would for a custom model with similar features (not to mention being able to get it right away). The vast majority of all starcraft are mass-produced models.

All of the Major Provinces and many of the minor ones (and of course the Empire) have starcraft construction facilities. Some are more renowned for the design and quality of their craft of course, but all turn out several 'lines' of starcraft, from small freighters to hyperyachts, from lumbering ore carriers to battlecruisers. Price is going to vary with proximity to the shipyards and production volume as well as the obvious factors of size and extras (even standard models are available with a variety of options).
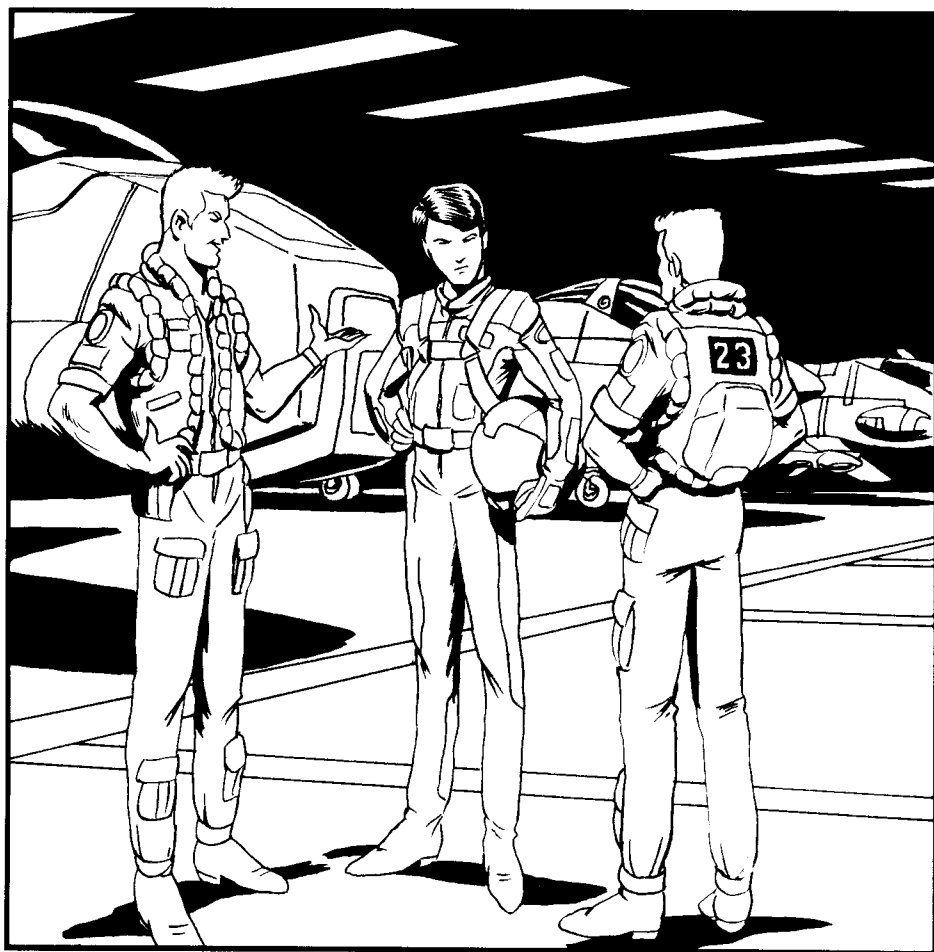
Custom Designs

For those with special needs and bottomless Elmonit reserves, some star shipyards are equipped to custom-build spacecraft. It can take from 50 days to 10 years, depending on the size of the ship, its complexity, and how geared towards custom design the facility is.

Used vs. New

So far we've only talked about *buying* a *new* spacecraft. In a realistic environment there are obviously a few other options, such as purchasing a used vehicle, or acquiring a vehicle on a temporary basis. One drawback is the likelihood that a used ship is more likely to have hidden problems associated with it than a new one. New space vessels usually have warranties for one to ten years or so (not that a warranty is going to help you when your Astrogation and Hyperspace Drive fail in the middle of Frontier Zone 23) and are more reliable and easily serviced.

All vehicles capable of interplanetary or interstellar travel must be inspected and certified by the local Imperial Transportation Board on a (roughly) annual basis as part of Registration (see below). This reduces the risk of an unwary shopper unknowingly buying a worthless piece of scrap titanium, but ITB inspectors have been bribed in the past. PCs would be well advised to steer clear of places like "Zorguck's X-tra Kleen Triple-Checked Used Starcraft."

However, a used space vehicle can often be purchased for half or even a quarter of the original price, and prove quite reliable.

GM Note: *a used starcraft could prove to be an interesting springboard — or even centerpiece — for a campaign. The PCs buy it and find a secret compartment with something bizarre in it, or an overlooked coursetape mysteriously only labeled with the starting-point, or the ship's computer has personality quirks or hidden memories — or even a will of its own...*

LEASING

Leasing or renting are options for the spacegoer on a budget, but there is naturally a substantial deposit involved, and absolute time limits of renting ("Just have it back in 5 decadays or there's a 2000 monit surcharge; have a nice flight!") make for a restrictive campaign. Leasing offers a more appealing alternative. Ships can be leased for more lengthy periods of time (usually one to five years, and there are 'lease-to-own' arrangements where you basically pay inflated installments over the lease period, then either return the vehicle or pay the balance. Never is this as cost effective as a loan.

BLACK MARKET

Most ships available on the black market are used; virtually all are stolen or repossessed vehicles of criminals who couldn't make their loan payments. Interestingly, a black market spacecraft tends to be more reliable than your typical ship picked up 'for a bargain' at Zorguck's: many black market dealers in the Imperium are controlled — or at least influenced — by the League of Merchants, and the League has a peculiar sort of pride with regard to providing 'quality previously-owned merchandise'. Many black market starcraft are unusual designs, custom made by minor clans or other independent groups and snatched up by professional ship-nappers, and some have interesting features and surprises even the dealers may not be aware of.

On the other side of the monit, black market ships can vary tremendously in cost, depending on the age and capabilities of the craft (some may be criminally overpowered on certain aspects, or have the interior spaces strangely allocated). Adventurers buying a black market ship do have the option of purchasing a vehicle with a variety of 'interesting' (read "illegal") extras, like concealed weapon mounts, smuggling compartments, etc.

REGISTRATION

All vehicles capable of orbital, interplanetary, and interstellar space travel are required to be registered with the Imperial Transportation Board (a division of the Information Ministry). Such vehicles are given a code when their construction is complete, which is an integral part of the ship's *clearance passage code*, which must be transmitted upon approach to any planet or installation.

13.0

USING STARCRAFT IN A CAMPAIGN SETTING

There are numerous activities which may be performed by a starcraft while not in a combat situation. Some of these are touched on below, and may be embellished by a GM running an *RPG* / *Star Strike* Campaign.

Also included in this section is the *Vehicular Maneuver/Astrogation Chart* (see the *Tables and Forms Book,* p.42-43), reproduced from *The RPG*. To make a starcraft maneuver roll, make an open-ended roll **and** add the applicable skill bonus and the GM designated difficulty modifier. Then, using the *Vehicular Maneuver/Astrogation Chart* (see the *Tables and Forms Book,* p.42-43), consult the appropriate column and cross-index with the result to determine the degree of success for the maneuver.

SHIP'S KEYS

Before one can begin maneuvering a starcraft, he will have to be able to power it up. This involves engaging the reactor and channeling power to all of the vessel's systems (save auxiliary units of course). To begin this process on Small or Medium vessels, a set of "Ship's Keys" will be needed. These are either a series of codes which may be fed into the craft's primer computer, or molecutronic "jump" boards inserted into the bridge's or cockpit's command console. Powering up a vessel without the Ship's Keys usually requires a Sheer Folly Crime Tech roll. This may be more or less severe, or require a different skill depending on the vessel type or producer, and is left to the GM's discretion.

REQUIRED SCREENS

A minimum +5 Deflector Screen rating is required for atmospheric entry and atmospheric flight. If this restriction is not met, a starcraft will almost always burn-up upon entering an atmosphere from planetary orbit.

HYPERSHUNT

A Hypershunt is the act of passing through Hyperspace using Translight drives. A vessel need not run its Sublight drives flat out to reach the speed-of-light threshold before making the cross over into Hyperspace. In fact, a Hypershunt may be made from a dead stop. The only consequence of a vessel's sublight velocity prior to Hypershunt is that it will be the craft's velocity once the Hypershunt is completed (e.g., start at a dead stop, end at a dead stop).

If a starcraft engages its Translight Drive while it is does have velocity in N-space, the vessel must be travelling along the vector leading in the direction of the Hypershunt destination, thus possibly tipping off pursuers as to the vessel's destination.

Gravity wells interfere with accurate Hypershunts. To avoid this, a vessel must engage and disengage its Translight drive outside the safety threshold of gravitic influence of major planetary or stellar bodies. If a Hypershunt begins or ends inside the safety range, roll 1D10 to determine the results:

Roll	Result
1	Roll a Mk.50 Explosive Missile attack against vessel.
2	Roll 2D10 Random Malfunctions against vessel.
3	Roll 1D10 Random Malfunctions against vessel.
4	Vessel has travelled a random displacement in a random direction.
5	Vessel has travelled its set displacement in a random direction.
6	Vessel has travelled a random displacement in its set direction.
7	Vessel arrives at destination in double the time required.
8	Vessel arrives as desired, but is non-functional for 1D10 hours after Hypershunt is finished.
9	Vessel arrives as desired, but is non-functional for 1D10 minutes after Hypershunt is finished.
10	Vessel unaffected.

Generally, safe distances for Hypershunt activations and deactivations are given on the *Hypershunting Range Chart.* Note however, that the ranges given here will vary by up to a factor of 100, depending on the density of the body. The more dense the body, the greater the safe Hypershunt engagement / disengagement range.

Note: *A Light Second is a distance of 300,000 km. To calculate N-space travel time while the Maximum Sublight Acceleration capability of a vessel's Sublight drive is engaged, use the following formula:*

Time (seconds) =
Square Root of
((Distance to Travel in km)
÷ (MSA in km/sec/sec))

Example: *Sheri and Tod are leaving a spacefaring port on the planet Phi Cygni III (a Medium Rock Planet), and want to make a Hypershunt once they are a safe distance away from the world. The MSA of their vessel's Sublight drive is 100 km/ sec/sec. The time required (in seconds) to reach a safe range before engaging their Translight drive is equal to the square root of: 30 million km divided by 100 km/s/s. After the math is figured out, Sheri and Tod discover that 550 seconds, or just over 9 minutes are required to get out of the planet's gravity well.*

But wait! What about the gravity well of Phi Cygni III's sun? Phi Cygni III is 500 LS distant from its sun (a Main Sequence Star). Therefore, the sun's gravity well has a significant effect on Hypershunts 4500 LS (5000-500 LS) past the planet. Now, Tod and Sheri have to recalculate their Time-to-Hyper for a distance travelled of 1,350,000,000 km (4500 x 300,000 km). The time is now 3700 seconds, or about an hour.

14.0
BOARDING ACTIONS

The Personal Combat System in *Space Master: The Role Playing Game*, is ideal for resolving the furious close quarters fighting typical of boarding actions against hostile vessels.

When using **Star Strike** and *The Role Playing Game* together, assume that a boarding action may ensue after the following conditions are met:

• Vessel to be boarded is incapable of applying any Maneuvering Thrust or engaging Maximum Sublight Acceleration (i.e., it is motionless or drifting predictably).

• Boarding vessel has an operable Tractor Beam of a strength at least equal to any functioning aboard the vessel to be boarded.

• Boarding vessel has a Shuttle Bay large enough to contain the vessel to be boarded **or** the boarding vessel's boarding troops are wearing environmentally secure armor and are capable of maneuvering in space.

HYPERSHUNTING RANGE CHART

Heavenly Body	Safe Hypershunt engagement range
Small Asteroid	10 Asteroid diameters
Large Asteroid	50 Asteroid diameters
Small Rock Planet	15,000,000 km (50 LS)
Medium Rock Planet	30,000,000 km (100 LS)
Large Rock Planet	150,000,000 km (500 LS)
Gas Giant	150,000,000 km (500 LS)
Dwarf Star	300,000,000 km (1000 LS)
Main Sequence Star	1,500,000,000 km (5000 LS)
Giant Star	30,000,000,000 km (100,000 LS)
Super Giant Star	300,000,000,000 km (1,000,000 LS)

- Both vessels occupy the same hex and are drifting at the same rate (or both are motionless).
- The GM may also require the pilot(s) of the boarding vessel to make a Maneuver Roll in order to pull-up along side the vessel to be boarded.

As an aid to the GM, the *Boarding Party Chart* lists a variety of troop types and their relevant (human) statistics for boarding actions. You may assume that at least one "leader" is present for every ten "regulars". DB listings do not assume any personal Energy Shields.

BOARDING PARTY CHART

Type	Lvl	Hits	AT(DB)	Weapon	OB
Commandoes:					
Leader	12	120	14(20)	MLA Rifle	110
Regular	8	110	13(20)	Assault Struptorgun	100
Elite Troops:					
Leader	11	120	20(20)	MLA Rifle	105
Regular	7	110	20(10)	Assault Laser	95
Storm Troops:					
Leader	10	120	12(20)	Blast Rifle	105
Regular	6	100	12(10)	Assault Blaster	90
Marines:					
Leader	9	120	10(20)	MLA Rifle	100
Regular	6	95	10(10)	Med Assault Rifle	90
Standard Troops:					
Leader	8	105	8(20)	Laser Rifle	95
Regular	3	55	7(10)	Assault Laser	65
Pirates:					
Leader	7	90	16(10)	Disruptor Rifle	80
Regular A	4	65	9(20)	Assault Blaster	70
Regular B	4	60	7(10)	Med Assault Rifle	65
Regular C	3	50	5(10)	MLA Pistol	50
Merchant Marine Troops:					
Leader	6	80	15(5)	Blast Rifle	90
Regular	3	50	13(5)	Assault Blaster	60
Poor Troops:					
Leader	4	55	6(10)	Med Assault Rifle	60
Regular	2	30	5(5)	Med Assault Rifle	35
Crewmembers:					
Leader	5	50	1(10)	Hvy Pistol	65
Regular	2	25	1(0)	Med Pistol	20

BOARDING ACTIONS WITHOUT THE ROLE PLAYING GAME

When *Space Master: The Role Playing Game* is unavailable, yet Boarding Actions need to be resolved, use the following quick resolution process:

a) Total the number of armed personnel of each Type on each side of the boarding conflict.

b) Multiply the number of troops by their Quality Modifier to find their Troop Strength Value.

Troop Type	Quality Modifier
Commando	x10
Elite	x8
Storm	x6
Marine	x5
Standard	x4
Pirate	x3
Merchant Marine	x2
Poor	x1
Crewmembers	x1

c) Add up the Troop Strength Values of all troops on each side of the Boarding Action.

d) Subtract the lower Troop Strength Value from the higher one to arrive at the Boarding Action Strength Differential.

e) Every sixth Round after the Boarding Action begins (six Rounds equal a one minute Turn), the combatant with the higher Troop Strength Value — and thus gaining the positive Boarding Action Strength Differential — rolls an Open-ended D100 and consults the *Boarding Action Results Chart* (on the next page) to determine the results of the Boarding Action thus far. The player making the die roll is said to have the "Advantage", while the other player's troops are said to be at a "Disadvantage". The results of the roll are assumed to take effect during the Final Orientation Phase of the Round.

f) If the Boarding Action Strength Differential is zero (0), players should make a competitive die roll to see who is considered to have the Advantage for that Turn and thus roll the dice.

BOARDING ACTION RESULTS CHART

Roll	Boarding Action Strength Differential					
	0-10	11-50	51-100	101-500	501-1000	1000+
- (-25)	A-X	A-X	A-90	A-80	A-70	A-50
(-24)-0	A-X	A-X	A-70/D-10	A-60/D-20	A-50/D-30	A-10
01-33	A-90	A-80	A-50/D-20	A-50/D-30	A-40/D-40	D-30
34-66	A-50/D-50	A-30/D-40	A-20/D-40	A-20/D-50	A-10/D-70	D-80
67-100	D-90	A-10/D-70	A-10/D-80	A-10/D-90	A-10/D-X	D-X
101+	D-X	D-X	D-X	D-X	D-X	D-X

Results:

A-X: The player with the Advantage loses all of his troops.

A-#: The player with the Advantage loses #% of his initial troops, selected randomly.

A/D: Both the Advantage and Disadvantage players take loses. If a #, select losses randomly.

D-#: The player with the Disadvantage loses #% of his initial troops, selected randomly.

D-X: The player with the Disadvantage loses all of his troops.

Notes:

1) When the percentage loses on a side reach 100+%, all of his troops are eliminated. Losses do not neccessarily mean that the troops are killed; many will only be incapacitated or captured (GM discretion).

2) When a player loses all of his troops, either through percentage loss, or through an A-X or D-X result, his vessel is captured by the opposing side provided that side has remaining troops. Otherwise neither craft is captured.

3) If a vessel is set to Self Destruct but is captured before it explodes, the Self Destruct order can be negated automatically by the capturing player. (If the game is being refereed, the GM may stipulate that a maneuver roll will be necessary to countermand the Self Destruct sequence.)
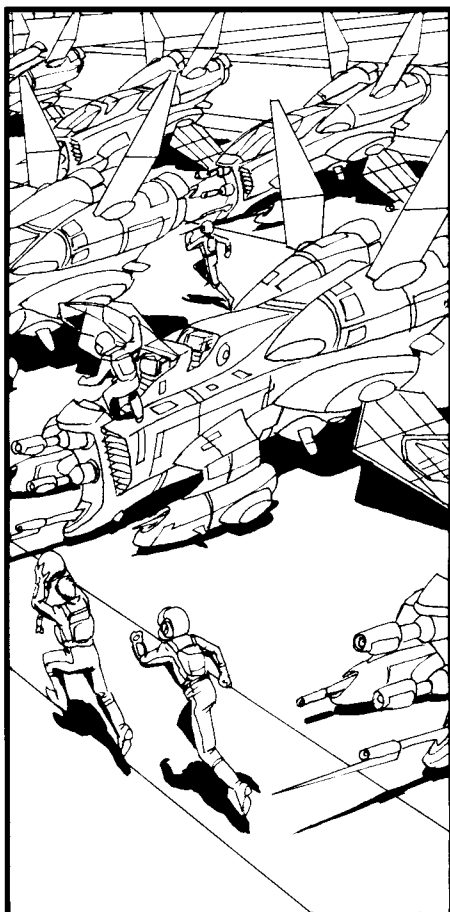
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INVENTORY OF LIGHT MILITARY STARCRAFT

The following section details the statistics of an array of light military starcraft for use in the Standard Game scenarios, or those of your own devising. There are six SMACs (those from the Basic Game given their full Standard Game capabilities), six TMAC Fighters, three MMAC Gunboats, a Frigate, a Destroyer, and a Transport.

On the Starcraft Statistics Sheets, abbreviations are used to save space. Here is a listing of the abbreviations and their full meanings; other terms should be self-explanatory.

Cost: The unloaded cost of the vessel, but including SIM and Combat Porgrams.

CAT: Construction Armor Type.

Armor Quality: The bonus derived from a Superior Alloy.

Armor Belt: The bonus derived from the Armor Belt.

Hits: Concussion Hits as adjusted by the Armor Belt.

Sub. Drive Rating: Sublight Drive Rating.

MSA: Maximum Sublight Acceleration (in km/s/s).

MTs: Maneuver Thrust Points available per Round.

Trans. Drive Rating: Translight Drive Rating.

Rad. Shield: Radiation Shielding.

Reactor Rating: A measure of the power required for the vessel to operate.

Duration: Operating duration of the vessel in days.

Andrium: Matter/Antimatter Fuel Units.

Control Points: A measure of the control systems necessary to operate the vessel.

Name	Marias Spree	CAT	23	Sub. Drive Rating	4	Sensor Rating	1	Screen Rating	3
Class	Transport	Armor Quality	—	MSA	40	Sensor Bonus	+5	Screen Bonus	+15
Cost	3,259,865	Armor Belt	—	MTs	4	EW Rating	—	Rad. Shield Rating	1
Mass	2,000	Hits	2,000	Trans. Drive Rating	5	EW Bonus	—	Rad. Shield Bonus	+5

Armament/Mount/Location/HUD: 1 x Mk.10 Laser/Turret/Top/+5.

Payload Pallets: 2 x Mk.10.
Tractor Beams: —

Tactics	+5	Microfreq	Mk.20	Reactor Rating	37	Control Points	7	Cargo	255
Predict	+5	Tight Beam	—	Duration	20	Crew	5	Streamlined	Yes
Evade	+15	TBD	—	Andrium	100	Computer	Mk.20	Landing Gear	Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: —   **Notes:** 100 Low Stateroom passenger capacity — Dispensary — Use LT FR counter.

Name	Geenen	CAT	25	Sub. Drive Rating	7	Sensor Rating	10	Screen Rating	2
Class	Frigate	Armor Quality	—	MSA	70	Sensor Bonus	+50	Screen Bonus	+20
Cost	11,623,670	Armor Belt	+5	MTs	7	EW Rating	12	Rad. Shield Rating	5
Mass	3,500	Hits	3,675	Trans. Drive Rating	10	EW Bonus	+54	Rad. Shield Bonus	+25

Armament/Mount/Location/HUD: 1 x Mk.10 Missile (Mag 50)/Turret/Top/+10 — 1 x Mk.10 Missile (Mag 50)/Turret/Top/+10 — 2 x Mk.10 Laser/Fixed/Forward/+10 — 2 x Mk.10 Laser/Fixed/Front Qtr R/+10 — 2 x Mk.10 Laser/Fixed/Front Qtr L/+10 — 1 x Mk.10 Laser/Fixed/ Rear Qtr R/0 — 1 x Mk.10 Laser/Fixed/ Rear Qtr L/0 — 2 x Mk.10 Laser/Fixed/Aft/+10 — 1 x Mk.10 Missile (Mag 50)/Turret/Bottom/+10 — 1 x Mk.10 Missile (Mag 50) /Turret/Bottom/+10.

Payload Pallets: 10 x Mk.50, 20 x Mk.10.
Tractor Beams: 1 x Mk.5.

Tactics	+35	Microfreq	Mk.30	Reactor Rating	181	Control Points	13	Cargo	0
Predict	+35	Tight Beam	Mk.1	Duration	20	Crew	11	Streamlined	No
Evade	+35	TBD	—	Andrium	100	Computer	Mk.57	Landing Gear	No

Fighter Bays: —   **Shuttle/Vehicle Bays:** —

Auxiliary Systems: RIF — Computer Mk.57 — Bridge — Life Support. **Notes:** Dispensary.

Name	Voloskai	CAT	26	Sub. Drive Rating	10	Sensor Rating	8	Screen Rating	2
Class	Destroyer	Armor Quality	+5	MSA	100	Sensor Bonus	+40	Screen Bonus	+10
Cost	22,275,075	Armor Belt	+15	MTs	10	EW Rating	4	Rad. Shield Rating	10
Mass	5,000	Hits	5,750	Trans. Drive Rating	10	EW Bonus	+20	Rad. Shield Bonus	+50

Armament/Mount/Location/HUD: 4 x Mk.10 Auto (Mag 10)/Turret/Top/+15 — 4 x Mk.20 Auto (Mag 10)/Turret/Bottom/+15 — 1 x Mk.30 Blast/Turret/Top/+25 — 2 x Mk.20 Blast/Flex/Forward/+15 — 2 x Mk.10 Blast/Flex/Forward/+15 — 2 x Mk.10 Blast/Flex/Aft/+15.

Payload Pallets: 6 x Mk.50.
Tractor Beams: 1 x Mk.5.

Tactics	+50	Microfreq	Mk.50	Reactor Rating	201	Control Points	12	Cargo	89
Predict	+50	Tight Beam	Mk.1	Duration	20	Crew	7	Streamlined	No
Evade	+50	TBD	—	Andrium	100	Computer	Mk.60	Landing Gear	No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: 2 x RIF — Microfreq Mk.50 — Tight Beam Mk.1 — **Notes:** Carries 10 Combat Troops — Dispensary Sensors Rtg 8; Computer Mk.60 — Bridge — Life Support.

Name	Ferret	CAT	24	Sub. Drive Rating	30	Sensor Rating	—	Screen Rating	—
Class	SMAC	Armor Quality	—	MSA	—	Sensor Bonus	—	Screen Bonus	—
Cost	1,122,560	Armor Belt	—	MTs	18	EW Rating	1	Rad. Shield Rating	—
Mass	50	Hits	50	Trans. Drive Rating	—	EW Bonus	+5	Rad. Shield Bonus	—

Armament/Mount/Location/HUD: 1 x Mk.10 Laser/Fixed/Forward/+5.

Payload Pallets: —
Tractor Beams: —

Tactics	+60	Microfreq	Mk.1	Reactor Rating	42	Control Points	6	Cargo	6
Predict	+58	Tight Beam	—	Duration	10	Crew	1	Streamlined	No
Evade	+40	TBD	—	Andrium	—	Computer	Mk.50	Landing Gear	No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: —   **Notes:** May not disengage.

Name	Fire Brand	CAT	23	Sub. Drive Rating	15	Sensor Rating	1	Screen Rating	2
Class	SMAC	Armor Quality	—	MSA	125	Sensor Bonus	+5	Screen Bonus	+10
Cost	1,009,250	Armor Belt	+5	MTs	13	EW Rating	4	Rad. Shield Rating	—
Mass	100	Hits	105	Trans. Drive Rating	—	EW Bonus	+20	Rad. Shield Bonus	—

Armament/Mount/Location/HUD: 2 x Mk.10 Laser/Fixed/Forward/+5.

Payload Pallets: 1 x Mk.10.
Tractor Beams: —

Tactics	+50	Microfreq	Mk.2	Reactor Rating	42	Control Points	5	Cargo	4
Predict	+45	Tight Beam	—	Duration	10	Crew	1	Streamlined	Yes
Evade	+50	TBD	—	Andrium	—	Computer	Mk.40	Landing Gear	Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF.   **Notes:** —

Name	Spirit Rider	CAT	24	Sub. Drive Rating	19	Sensor Rating	1	Screen Rating	2
Class	SMAC	Armor Quality	—	MSA	145	Sensor Bonus	+5	Screen Bonus	+10
Cost	1,833,925	Armor Belt	+15	MTs	15	EW Rating	2	Rad. Shield Rating	—
Mass	125	Hits	144	Trans. Drive Rating	—	EW Bonus	+10	Rad. Shield Bonus	—

Armament/Mount/Location/HUD: 2 x Mk.10 Blast/Fixed/Forward/+15.

Payload Pallets: 2 x Mk.10
Tractor Beams: —

Tactics	+45	Microfreq	Mk.2	Reactor Rating	44	Control Points	5	Cargo	2
Predict	+50	Tight Beam	—	Duration	10	Crew	1	Streamlined	No
Evade	+50	TBD	—	Andrium	—	Computer	Mk.40	Landing Gear	No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Microfreq Mk.2 — Computer Mk.40.   **Notes:** —

Name .... Intruder	CAT 22	Sub. Drive Rating..... 40	Sensor Rating 1	Screen Rating 1
Class .... SMAC	Armor Quality ... —	MSA 185	Sensor Bonus .... +5	Screen Bonus .... +5
Cost 1,431,025	Armor Belt .... —	MTs 19	EW Rating 1	Rad. Shield Rating... —
Mass 150	Hits 150	Trans. Drive Rating.. —	EW Bonus .... +5	Rad. Shield Bonus ... —

Armament/Mount/Location/HUD: 1 x Mk.10 Laser/Fixed/Forward/0 — 1 x Mk.6 Blast/Fixed/Forward/0.

Payload Pallets: 1 x Mk.20.
Tractor Beams: —

Tactics .... +68	Microfreq Mk.2	Reactor Rating 60	Control Points 7	Cargo 3
Predict .... +60	Tight Beam .... —	Duration 10	Crew 1	Streamlined .... No
Evade .... +50	TBD .... —	Andrium .... —	Computer Mk.60	Landing Gear .... No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: 2 x RIF.   **Notes:**—

Name .... Thunder Bird	CAT 24	Sub. Drive Rating.... 22	Sensor Rating 1	Screen Rating 2
Class .... SMAC	Armor Quality ... —	MSA 155	Sensor Bonus .... +5	Screen Bonus .... +10
Cost 1,584,085	Armor Belt .... +5	MTs 16	EW Rating 10	Rad. Shield Rating... —
Mass 200	Hits 210	Trans. Drive Rating.. —	EW Bonus .... +50	Rad. Shield Bonus ... —

Armament/Mount/Location/HUD: 4 x Mk.10 Laser/Fixed/Forward/+15.

Payload Pallets: 1 x Mk.20; 4 x Mk.10.
Tractor Beams: —

Tactics .... +60	Microfreq Mk.2	Reactor Rating 76	Control Points 7	Cargo 3
Predict .... +60	Tight Beam .... —	Duration 10	Crew 1	Streamlined .... Yes
Evade .... +60	TBD .... —	Andrium .... —	Computer Mk.60	Landing Gear .... Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: —   **Notes:** —

Name .... Night Hawk	CAT 24	Sub. Drive Rating.... 20	Sensor Rating 1	Screen Rating 1
Class .... SMAC	Armor Quality ... —	MSA 150	Sensor Bonus .... +5	Screen Bonus .... +5
Cost 1,737,855	Armor Belt ...... +20	MTs 15	EW Rating 9	Rad. Shield Rating... —
Mass 300	Hits 360	Trans. Drive Rating.. —	EW Bonus .... +45	Rad. Shield Bonus ... —

Armament/Mount/Location/HUD: 6 x Mk.10 Blast/Fixed/Forward/+15 — 1 x Mk.20 Laser/Fixed/Forward/+15.

Payload Pallets: —
Tractor Beams: —

Tactics .... +54	Microfreq Mk.2	Reactor Rating 113	Control Points 6	Cargo 3
Predict .... +54	Tight Beam .... —	Duration 10	Crew 1	Streamlined .... Yes
Evade .... +54	TBD .... —	Andrium .... —	Computer Mk.50	Landing Gear .... Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: —   **Notes:** —

Name	Manx	CAT	21	Sub. Drive Rating	19	Sensor Rating	1	Screen Rating	1
Class	TMAC	Armor Quality	—	MSA	145	Sensor Bonus	+5	Screen Bonus	+5
Cost	1,462,695	Armor Belt	—	MTs	15	EW Rating	1	Rad. Shield Rating	—
Mass	300	Hits	300	Trans. Drive Rating	—	EW Bonus	+5	Rad. Shield Bonus	—

Armament/Mount/Location/HUD: 1 x Mk.10 Laser/Fixed/Forward/+5 — 1 x Mk.10 Laser/Turret/Top/+5.

Payload Pallets: 1 x Mk.50 — 5 x Mk.10.
Tractor Beams: —

Tactics	+68	Microfreq	Mk.2	Reactor Rating	44	Control Points	6	Cargo	209
Predict	+68	Tight Beam	—	Duration	10	Crew	2	Streamlined	Yes
Evade	+68	TBD	—	Andrium	—	Computer	Mk.71	Landing Gear	Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Sensor Rtg 1 — EW Rtg 1 — Screen Rtg 1 — Life Support.　　**Notes:** —

Name	Salamander	CAT	24	Sub. Drive Rating	22	Sensor Rating	1	Screen Rating	3
Class	TMAC	Armor Quality	+5	MSA	155	Sensor Bonus	+5	Screen Bonus	+15
Cost	2,676,800	Armor Belt	+15	MTs	16	EW Rating	5	Rad. Shield Rating	3
Mass	400	Hits	460	Trans. Drive Rating	—	EW Bonus	+25	Rad. Shield Bonus	+15

Armament/Mount/Location/HUD: 1 x Mk.10 Ion/Fixed/Forward/+20 — 2 x Mk.10 Blast/Flex/Aft/+5 — 1 x Mk.10 Laser/Turret/Top/+5.

Payload Pallets: 1 x Mk.20 — 4 x Mk.10.
Tractor Beams: —

Tactics	+72	Microfreq	Mk.2	Reactor Rating	74	Control Points	7	Cargo	10
Predict	+72	Tight Beam	—	Duration	10	Crew	2	Streamlined	Yes
Evade	+72	TBD	—	Andrium	—	Computer	Mk.83	Landing Gear	Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Microfreq Mk.2 — EW Rtg 2.　　**Notes:** —

Name	Comet	CAT	25	Sub. Drive Rating	17	Sensor Rating	1	Screen Rating	2
Class	TMAC	Armor Quality	+15	MSA	135	Sensor Bonus	+5	Screen Bonus	+10
Cost	5,137,400	Armor Belt	+25	MTs	14	EW Rating	8	Rad. Shield Rating	4
Mass	500	Hits	625	Trans. Drive Rating	—	EW Bonus	+40	Rad. Shield Bonus	+20

Armament/Mount/Location/HUD: 1 x Mk.10 Plasma/Fixed/Forward/+20 — 1 x Mk.6 Blast/Fixed/Aft/+5.

Payload Pallets: 4 x Mk.10.
Tractor Beams: —

Tactics	+64	Microfreq	Mk.2	Reactor Rating	58	Control Points	6	Cargo	2
Predict	+64	Tight Beam	—	Duration	10	Crew	2	Streamlined	Yes
Evade	+64	TBD	—	Andrium	—	Computer	Mk.65	Landing Gear	Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: Sublight Drive Rtg1 — RIF — Microfreq Mk.2 — EW Rtg 8.　　**Notes:** —

Name .... Sentinel	CAT 25	Sub. Drive Rating..... 13	Sensor Rating 1	Screen Rating 10
Class .... TMAC	Armor Quality ...—	MSA...................... 115	Sensor Bonus .... +5	Screen Bonus .... +50
Cost 2,861,235	Armor Belt ...... +25	MTs 12	EW Rating 2	Rad. Shield Rating..... 6
Mass 700	Hits 875	Trans. Drive Rating.. —	EW Bonus .... +10	Rad. Shield Bonus . +30

Armament/Mount/Location/HUD: 1 x Mk.10 Auto (Mag 10)/Turret/Top/+10 — 1 x Mk.10 Auto (Mag 10)/Turret/Top/+10 — 1 x Mk.10 Missile (Mag 20)/Fixed/Forward/+10 — 1 x Mk.10 Missile (Mag 20)/Fixed/Forward/+10 — 1 x Mk.10 Missile (Mag 20)/Turret/Top/+10 — 1 x Mk.10 Missile (Mag 20)/Turret/Top/+10.

Payload Pallets: 6 x Mk.10.
Tractor Beams: —

Tactics .... +56	Microfreq Mk.2	Reactor Rating 32	Control Points 7	Cargo 1
Predict .... +56	Tight Beam .... —	Duration 10	Crew 2	Streamlined .... Yes
Evade .... +56	TBD .... —	Andrium .... —	Computer Mk.60	Landing Gear .... Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Microfreq Mk.2.   **Notes:**—

Name .... Seraph	CAT 25	Sub. Drive Rating..... 20	Sensor Rating 1	Screen Rating 5
Class .... TMAC	Armor Quality ...—	MSA...................... 150	Sensor Bonus .... +5	Screen Bonus .... +25
Cost 4,875,885	Armor Belt ...... +25	MTs 15	EW Rating 5	Rad. Shield Rating..... 7
Mass 800	Hits 1,000	Trans. Drive Rating.. —	EW Bonus .... +25	Rad. Shield Bonus . +35

Armament/Mount/Location/HUD: 1 x Mk.30 Laser/Fixed/Forward/+1 — 1 x Mk.10 Laser/Fixed/Forward/+5 — 4 x Mk.10 Laser/Flex/Aft/+10 — 1 x Mk.10 Laser/Fixed/Aft/+5 — 1 x Mk.10 Missile (Mag 20)/Turret/Top/+5.

Payload Pallets: 1 x Mk.50 — 4 x Mk.10.
Tractor Beams: —

Tactics .... +70	Microfreq Mk.2	Reactor Rating 128	Control Points 7	Cargo 19
Predict .... +70	Tight Beam .... —	Duration 10	Crew 2	Streamlined .... Yes
Evade .... +70	TBD .... —	Andrium .... —	Computer Mk.80	Landing Gear .... Yes

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: Sublight Drive Rtg 1 — 2 x RIF — Microfreq Mk.2 —   **Notes:**—
Sensors Rtg 1 — EW Rtg 5 — Control Area — Life Support — Computer Mk.80.

Name .... Glaive	CAT 25	Sub. Drive Rating..... 30	Sensor Rating 1	Screen Rating 8
Class .... TMAC	Armor Quality ...—	MSA...................... 175	Sensor Bonus .... +5	Screen Bonus .... +40
Cost 7,383,085	Armor Belt ...... +25	MTs 18	EW Rating 4	Rad. Shield Rating..... 8
Mass 960	Hits 1,200	Trans. Drive Rating.. —	EW Bonus .... +20	Rad. Shield Bonus . +40

Armament/Mount/Location/HUD: 1 x Mk.10 Plasma/Fixed/Forward/+25 — 2 x Mk.10 Blast/Flex/Aft/+20 — 1 x Mk.10 Missile (Mag 10)/Turret/Top/+20 — 1 x Mk.10 Missile (Mag 10)/Turret/Top/+20.

Payload Pallets: 5 x Mk.10.
Tractor Beams: —

Tactics .... +80	Microfreq Mk.2	Reactor Rating 92	Control Points 7	Cargo 11
Predict .... +80	Tight Beam .... —	Duration 10	Crew 2	Streamlined .... No
Evade .... +80	TBD .... —	Andrium .... —	Computer Mk.108	Landing Gear .... No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Microfreq Mk.2 — Computer Mk.108.   **Notes:**

Name .... Epping	CAT 23	Sub. Drive Rating 11	Sensor Rating 1	Screen Rating 5
Class .... MMAC	Armor Quality ... —	MSA 105	Sensor Bonus .... +5	Screen Bonus .... +25
Cost 2,635,785	Armor Belt .... +5	MTs 11	EW Rating 5	Rad. Shield Rating 2
Mass 1,000	Hits 1,050	Trans. Drive Rating .. —	EW Bonus .... +25	Rad. Shield Bonus . +10

Armament/Mount/Location/HUD: 1 x Mk.20 Laser/Fixed/Forward/+10 — 1 x Mk.10 Laser/Fixed/Forward/+5 —
1 x Mk.10 Laser/Flex/Rear Qtr R/+5 — 1 x Mk.10 Laser/Flex/Rear Qtr L/+5 — 1 x Mk.10 Missile (Mag 20)/Turret/Top/0 —
1 x Mk.10 Missile (Mag 20)/Turret/Top/0 — 1 x Mk.10 Missile (Mag 20)/Turret/Bottom/0.

Payload Pallets: —
Tractor Beams: —

Tactics .... +52	Microfreq Mk.10	Reactor Rating 81	Control Points 7	Cargo 33
Predict .... +52	Tight Beam .... —	Duration 10	Crew 4	Streamlined .... Yes
Evade .... +52	TBD .... —	Andrium .... —	Computer Mk.55	Landing Gear .... Yes

Fighter Bays: -—
Shuttle/Vehicle Bays: —

Auxiliary Systems: RIF — Microfreq Mk.2. **Notes:** —

Name .... Falconeer	CAT 25	Sub. Drive Rating 15	Sensor Rating 1	Screen Rating 5
Class .... MMAC	Armor Quality ... —	MSA 125	Sensor Bonus .... +5	Screen Bonus .... +25
Cost 8,785,890	Armor Belt ...... +25	MTs 13	EW Rating 5	Rad. Shield Rating 6
Mass 2,000	Hits 2,500	Trans. Drive Rating .. —	EW Bonus .... +25	Rad. Shield Bonus . +30

Armament/Mount/Location/HUD: 1 x Mk10 Ion/Fixed/Forward/+20 — 1 x Mk10 Ion/Fixed/Forward/+20 —
2 x Mk.10 Blast/Flex/Front Qtr R/+20 — 2 x Mk.10 Blast/Flex/Front Qtr L/+20 —
2 x Mk.10 Blast/Flex/Aft/+20 — 2 x Mk.10 Blast/Flex/Aft/+20.

Payload Pallets: 6 x Mk.50.
Tractor Beams: —

Tactics .... +60	Microfreq Mk.10	Reactor Rating 145	Control Points 8	Cargo 46
Predict .... +60	Tight Beam .... —	Duration 10	Crew 6	Streamlined .... No
Evade .... +60	TBD .... —	Andrium .... —	Computer Mk.70	Landing Gear .... No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: Sublight Drive Rtg 1 — RIF; Microfreq Mk.2 — **Notes:** —
EW Rtg 1 — Computer Mk.70 — Life Support.

Name .... Death Wing	CAT 26	Sub. Drive Rating 19	Sensor Rating 1	Screen Rating 2
Class .... MMAC	Armor Quality ... —	MSA 145	Sensor Bonus .... +5	Screen Bonus .... +10
Cost 11,401,380	Armor Belt ...... +25	MTs 15	EW Rating 6	Rad. Shield Rating 8
Mass 3,000	Hits 3,750	Trans. Drive Rating .. —	EW Bonus .... +30	Rad. Shield Bonus . +40

Armament/Mount/Location/HUD: 1 x Mk.20 Laser/Fixed/Forward/+15 — 1 x Mk.10 Plasma/Fixed/Forward/+15 —
4 x Mk.10 Blast/Fixed/Front Qtr R/+15 — 4 x Mk.10 Blast/Fixed/Front Qtr L/+15 —
2 x Mk.10 Blast/Flex/Aft/+15.

Payload Pallets: 6 x Mk.50.
Tractor Beams: —

Tactics .... +68	Microfreq Mk.10	Reactor Rating 197	Control Points 9	Cargo 40
Predict .... +68	Tight Beam .... —	Duration 10	Crew 5	Streamlined .... Yes
Evade .... +68	TBD .... —	Andrium .... —	Computer Mk.80	Landing Gear .... No

Fighter Bays: —
Shuttle/Vehicle Bays: —

Auxiliary Systems: Sublight Drive Rtg 1 — 2 x RIF — Microfreq Mk.2 — **Notes:** —
Screen Rtg 1 — Computer Mk.80 — Life Support.

GLOSSARY

Star Strike, as with all *Space Master* games, often uses unfamiliar terms to represent unfamiliar items or concepts. What follows is a listing of some of the terms used in *Star Strike*, and their meanings.

Andrium: Matter/Antimatter fuel used in Translight Drives.

AT: Armor Type. In the realm of Space Master, Armor Type usually refers to personal body armor which is fully described in *Space Master: The Role Playing Game*.

Auto Cannon: A Firing Mechanism which discharges a profuse number of heavy "slugs" in rapid succession. Auto Cannons use an electro-magnetic coil charged with pulses of energy to accelerate their "slugs" towards a target.

CAT: Construction Armor Type. This is a numerical rating for the underlying physical structure of any vehicle, craft, construct, or other naturally occurring barrier. CATs range from 21 through to 30, inclusive.

Central Fire Control: The default firing option used by a vessel when individual Gunners are not available to discharge Weapon Mounts. Central Fire Control requires a functioning Targeting Program to be running in the vessel's Computer.

Concussion Hits: A measure of general structural integrity. Hits are equal to the mass of a vessel in tons, and may be modified by adding an Armor Belt.

Construct: Any vehicle, object or craft which has been constructed or synthesized for some purpose. Constructs are notable in that they have Construction Armor Types (CATs) and can be affected by Ordnance Weapons

Covered Arc: The cone or hemisphere through which a Weapon Mount may engage targets.

Cumet: Cubic Meter.

DB: Defensive Bonus. A measure of ability to avoid or deflect an attack.

Deflector Screens: Defensive barrier generated by certain vessels.

Destroyed: Cataclysmic elimination of a vessel. A Destroyed vessel may not be retrieved and repaired.

Disabled: A Disabled vessel, though not Destroyed, is completely non-functional. All of its systems are assumed to be Knocked Out. A vessel is Disabled when it takes more Concussion Hits that its Hit total. It is possible to recover and repair a Disabled vessel.

Drift: In the frictionless environment of space, Drift is the involuntary movement of a vessel which results from having gained Momentum.

Elmonit (E.): Standard unit of cost. An electronic monit.

Energy Cannon: A Firing Mechanism. Available in any of the following forms: Laser, Blast, Disruptor, Ion, Plasma. Each produces different damage characteristics.

EW: Electronic Warfare. Capability of a vessel to trick adversarial detection, targeting, and attack delivery systems. EW may also be used to jam opponent's Microfrequency communications.

Firing Mechanism (FM): A weapon. In *Star Strike*, this refers to either an individual Auto Cannon or any individual Energy Cannon, of which there are many kinds. One, or more, Firing Mechanisms will occupy a Weapon Mount. Multiple Firing Mechanisms which occupy a single Weapon Mount will discharge in unison.

Fixed Mount: A Weapon Mount which affords a 60 degree cone of fire.

Flexible Mount: A Weapon Mount which affords a 120 degree cone of fire.

Grapple: To successfully place a Tractor Beam on an object.

Grapple-to-board: To maneuver up next to a Disabled vessel, possibly with the assistance of a Tractor Beam, with the intention of boarding that vessel with combat personnel.

Hex: Hexagonal space on the *Star Strike* map normally representing a distance of 1 kilometer from side to side.

Hull: Base for starcraft design which incorporates the following assumed systems: Life Pods, Electromagnetic Ramscoop, Attitude Thrusters, and Visual Monitors.

Hyperspace: The Tachyon Universe. A space-time continuum, paralleling and permeating N-space, wherein the speed-of-light forms the lower boundary of a completely different radiative spectrum. Starcraft are capable of displacing themselves at speeds faster than light by entering Hyperspace with Translight Drives.

Knocked Out: State of damage. Knocked Out systems may not be used **and** if repairs are attempted, the system is considered to be Extremely Severely Damaged.

Large: A vessel having a mass from 100,000 to 999,999 tons inclusive.

Launcher: Weapon Mount which houses Missiles. There are three general Launcher types: Fixed, Flexible, and Turret. These conform in essence to the Weapon Mount types.

Loading Up: Filling a vessel's Auto Cannon magazines, loading its Missile Launcher magazines, attaching Payloads to its Pallets, and purchasing Workshop CIP allotments.

Location: In the Standard Game, Location refers to a specific hex on the map, usually occupied by starcraft. In the Advanced Game, the concept of Location is expanded to encompass not only the hex, but also the specific altitude level of a vessel.

Maneuvering Thrust: Momentum pulse supplied by a vessel's Sublight Drive. Used for combat maneuvers.

Maneuvering Thrust Points (MTs): Increments of Maneuvering Thrust used to regularize combat movement in *Star Strike*.

Mass Category: A general classification used to identify vessels and apply certain mechanics of the game system to them. There are four Mass Categories for vessel's in *Star Strike*: Small (1), Medium (2), Large (3), and Super Large (4).

Maximum Sublight Acceleration (MSA): N-space motive force supplied by a vessel's Sublight Drive.

Medium: A vessel having a mass from 1000 to 99,999 tons inclusive.

Mine: Warhead containment system which may be detonated by an enemy vessel entering its Location.

Missile: Self-contained fast attack delivery system. Missiles only exist in sizes ranging from Mk.6 through to Mk.10 inclusive. A Missile may contain Explosive or Nuclear Warheads.

MMAC: Multi-Manned Attack Conveyance gunboat.

Momentum: Speed accumulated in a specific direction.

MTs: Maneuvering Thrust Points.

N-space: Normal space. The conventional non-relativistic space defining reality as we experience it. In *Star Strike*, N-Space has the more specific meaning of the vacuum existing between heavenly bodies.

Object: a body of any significant size. It may be a starcraft, construct, asteroid, etc.

OB: Offensive Bonus. A measure of attack effectiveness.

Payload Pallet: Holding or containment system for a variety of add-on Weapons or Pods. A Payload Pallet may also function as a launching system for a Torpedo or a discharging system for a Mine.

Pod: Container of special equipment or cargo. It may be attached to, and function for, a vessel by means of a Payload Pallet.

RIF Generator: Relative Inertia Field Generator. This field, when engaged aboard a starcraft, allows certain relativistic effects to be suspended. Thus, space vessels and their occupants may safely endure the stresses of high G acceleration and existence within Hyperspace.

Round off: Fractional values are rarely used in *Star Strike*, therefore, round off fractional numbers in the following way: values of .50 or more are rounded up to the next higher whole digit, while values of .49 or less are rounded down to the next lower whole digit.

SMAC: Single Manned Attack Conveyance fighter.

Small: A vessel having a mass of less than 1000 tons.

Starcraft: Any vessel capable of space flight.

Sublight Drive: N-space engine which provides a starcraft with its Maximum Sublight Acceleration (for long N-space voyages), and its Maneuvering Thrust (for combat movement).

Super Large: A vessel having a mass of 1,000,000 tons or greater.

TMAC: Two Manned Attack Conveyance fighter.

Torpedo: Self-contained slow attack delivery system. Torps may come in any size from Mk.6 through to Mk.50 inclusive. They may carry Explosive, Nuclear or Matter/Antimatter Warheads. Torps in *Star Strike* may only be fired from Payload Pallets.

Translight Drive: Engine which uses Matter/Antimatter reactions to displace a vessel through N-space via Hyperspace.

Turret Mount: A Weapon Mount which affords a complete hemisphere of fire.

Vessel: a reference to any spaceworthy craft, encompassing mobile starcraft and immobile space stations and satellites.

Volume: During the starcraft construction process, Volume is a measure of the space occupied by a given system. Volume is measured in cumets.

Warhead: Destructive yield of Missiles, Torpedoes, Mines, etc. Warheads may either be of an Explosive, Nuclear, or Matter/Antimatter nature.

Weapon Mount: Unit containing one, or more, Firing Mechanisms. There are three general Weapon Mounts in *Star Strike*: Fixed, Flexible, and Turret. A Weapon Mount which houses Missiles is called a Launcher.

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INDEX

The following is a list of references to materials throughout the two *Star Strike* books. Entries are coded with an "S" or "X". S stands for the *Strike Book*, while X stands for the Tables and Forms Book. The Tables and Charts in *Star Strike* have their own index, which follows the rule indexing below.

COLOR COUNTERS ABBREVIATIONS

The Following abbreviations are used on the **Star Strike** Color Counters:

SMAC: Single Manned Attack Coneyance fighter
TMAC: Two (or Three) Manned Attack Conveyance fighter
MMAC: Multi Manned Attack Conveyance gunboat
FRG: Frigate
DSTR: Destroyer
CRSR: Cruiser
LINR: Liner
LT FR: Light Freighter
HY FR: Heavy Freighter
FL CR: Flag Cruiser
CARR: Carrier
SM SS: Small Space Supremacy Vessel
LG SS: Large Space Supremacy Vessel
DRNT: Dreadnought

	A	B	C	D	E
01-05	Nary a whisper. +0 hits.	Great luck escapes you. No additional damage. +0.	+1 hit	+2 hits	+3 hits
06-10	+1 hit	+2 hits	+3 hits	+4 hits	Blast stuns foe for 1 round. +3 hits.
11-15	Foe loses initiative for 1 round. +2 hits.	Foe is spun about. +4 hits. Foe loses initiative 1 round.	Foe is unbalanced. +3 hits and foe must parry 1 round.	Foe is unbalanced. +4 hits and foe must parry 1 round.	Blast stuns foe for 1 round. +4 hits.
16-20	Foe is spun about. +3 hits. Foe loses initiative 1 round.	Blast unbalances foe. +2 hits and foe must parry 1 round.	Foe is unbalanced. +4 hits and foe must parry 1 round.	Foe is unbalanced. +6 hits and foe must parry 1 round.	Blast stuns foe for 1 round. +9 hits.
21-35	Foe is unbalanced. +5 hits. Foe loses 2 rounds of initiative.	Blow unbalances foe. +5 hits and foe must parry 1 round.	Foe is unbalanced. +8 hits and foe must parry 1 round.	Foe is unbalanced. +10 hits and foe must parry 1 round.	Foe reels from blast. +15 hits and foe is stunned for 1 round.
36-45	Foe is unbalanced. +8 hits. Foe loses 2 rounds of initiative.	Blow unbalances foe. +9 hits and foe must parry next round.	Foe is unbalanced. +10 hits and foe is stunned for 1 round	Foe is unbalanced and must parry for 2 rounds. +12 hits.	Foe is spun about and reels backwards 10 feet. +20 hits. Foe is stunned 2 rounds.
46-50	Blow unbalances foe. +10 hits. Foe loses 3 rounds of initiative. Getting better.	Blow unbalances foe. +10 hits and foe is stunned next round.	Foe is unbalanced and must parry for 2 rounds. +12 hits. Add +5 to your next action.	Foe is spun about. +20 hits. Foe is stunned 2 rounds.	Foe is staggered. +20 hits and foe is stunned and unable to parry 1 round.
51-55	Foe is unbalanced. +10 hits. Foe is stunned for 1 round. Grazing blast.	Blow unbalances foe. +12 hits and foe is stunned next round.	Foe is knocked back 5 feet and must parry for the next 2 rounds. +15 hits.	Foe is knocked back 5 feet and must parry for the next 2 rounds. Add +5 to your next action.	Foe is staggered. +20 hits. Foe is stunned 2 rounds and unable to parry next round.
56-60	Foe is unbalanced. +10 hits. Foe is stunned next round.	Foe is spun about. +10 hits and foe is stunned for 2 rounds.	Foe is spun about +12 hits and foe is stunned for 2 rounds.	Foe is staggered. +10 hits. Foe is stunned and unable to parry for 1 round.	Foe is knocked down, +20 hits. Foe is out of action for 2 rounds.
61-65	Foe is unbalanced. +12 hits. Foe is stunned during next round.	Foe is staggered. Poor fool is stunned and unable to parry next round. +10 hits.	Foe is stunned and unable to parry next round. +10 hits. Add 5 to your next action.	Foe is staggered. +10 hits. Foe is stunned 2 rounds and unable to parry for next round.	Foe is knocked down. +20 hits. Foe is out of action for 3 rounds.
66	Blast breaks foe's non-weapon shoulder. Arm is useless. +20 hits. Foe must parry for 1 round. +7 hits.	Blow shatters foe's weapon shoulder. +15 hits. Arm is useless. Foe is stunned for 1 round.	Blow breaks both of foe's arms. Foe is knocked down, is at -90, and is stunned for 3 rounds.	Blow to foe's head. If foe has no helmet you kill him. If foe has a helmet he is out for 3 hours.	Blast shatters skull into thousands of lost particles. Foe dies instantly. Direct hit. Fine punch.
67-70	Blow to foe's back. Foe is stunned and unable to parry for 1 round. +7 hits.	Blow to foe's back. Foe is stunned and unable to parry next round. +12 hits.	Blow to foe's back. Foe is stunned for 2 rounds and unable to parry next round.	Foe is knocked down. +15 hits. Foe is out of action for 2 rounds. Add +5 to your next act.	Blast to foe's non-weapon arm. Foe is stunned 1 round. Foe has a shattered shoulder.
71-75	Blow unbalances foe. +10 hits and foe is stunned for 2 rounds. Strong grazing blast.	Blow stuns foe for 2 rounds. +20 hits. Foe is unable to parry next round.	Foe is knocked down. +10 hits. Foe is out of action for 2 rounds. Add 5 to your next act.	Foe now has a broken non-weapon arm. +10 hits. Foe loses use of arm, is stunned 1 round.	Blast to foe's chest breaks ribs and stuns foe for 6 rounds. +20 hits. Foe at -25.
76-80	Blow stuns foe for 2 rounds. +15 hits. Foe is unable to parry for 1 round.	Foe is knocked down. +10 hits. Foe is out of action for 2 rnds. Add +5 to your next act.	Blow breaks foe's collar bone. Foe is at -25. Break is minor. +15 hits. Foe is stunned 1 round.	Blow breaks foe's weapon arm. +10 hits. Arm is useless. Foe is stunned for 1 round.	Blistering blast to foe's shoulder area breaks collar bone and both shoulders. Foe's arms are useless. +25 hits.
81-85	Blow to foe's back +10 hits. Foe has broken ribs and torn cartilage, fights -25.	Blow to foe's back tears cartilage, breaks ribs. +10 hits. Foe is stunned for 2 rounds and fights at -25.	Foe has broken thigh. +15 hits. Foe fights at -40 and is stunned for 3 rounds.	Blow breaks both of foe's arms and knocks foe down. +20 hits. Foe is down for 3 rounds, has 2 useless arms.	Blast to side crushes a variety of organs. Foe dies of internal bleeding after 6 rounds of inactivity. +30 hits.
86-90	Blow knocks foe down. +10 hits. Foe is down for 3 rounds an is unable to parry.	Strike to foe's calf. +20 hits. Foe fights at -50 due to broken bone and torn tendons. Foe is stunned 3 rounds.	Blow breaks foe's hip. +20 hits. Foe fights at -60 and is stunned and unable to parry for 2 rounds.	Strike to foe's abdomen. +20 hits. If area not armored, foe dies in 6 rounds due to organ loss. If armored, foe stunned 12 rounds.	Blast crushes bone in foe's lower body. Foe finds life hard and dies in 3 rounds. +50 hits.
91-95	Blow breaks foe's hip. Foe fights at -50. +20 hits. Foe is stunned and unable to parry for 3 rounds.	Blow to upper head area. If foe has no helmet, he is dead. Otherwise, foe is in a coma for 2 weeks. +25 hits.	Blow shatters foe's knee. Foe is hobbled and is at -75. +20 hits. Foe is stunned and unable to parry for 9 rounds.	Blow shatters foe's jaw. Foe's brain is destroyed. +50 hits. Foe dies after 3 rounds of inactivity.	Blast drives bone through foe's lungs. Foe drops and dies after 6 rounds of intense agony. Sad. +30 hits.
96-99	Blast to foe's head. +20 hits. If foe has no helmet, he is knocked out and in a coma for 1 month. If foe has helmet he is knocked out for 1 day.	Blast to foe's collar area severs windpipe. Foe cannot breath or fight. +25 hits. Foe dies in 12 long rounds.	Blast to foe's chest. Foe dies immediately after sudden brain shock. +50 hits.	Blow to foe's side. +25 hits. Bone is driven into foe's kidneys and foe dies of shock in 1 round.	Blast crushes skull. Foe dies immediately. Add +20 to your next action.
100	Head strike. +25 hits. If foe has helm, it is broken and foe is knocked down an out for 1 day. If no helm, foe dies due to the skull fracture in 3 rounds.	Blow to back of neck paralyzes foe from the shoulders down. +30 hits. Foe is unhappy.	Blast to foe's head crushes skull. Foe dies immediately. Add +10 to your next action.	Chest disruption. Foe's lungs and heart explode. Foe dies instantly. Add +25 to your next action.	Blast annihilates foe's entire skeleton. Foe is reduced to a gelatinous pulp. Try a spatula.

18.2 HEAT CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Hot air. +0 hits.	Hot draft. +0 hits.	+1 hit.	+2 hits.	+3 hits.
06-10	+1 hit.	+2 hits.	+3 hits.	+4 hits.	Foe loses initiative for 1 rnd. +4 hits.
11-15	Foe loses initiative for 1 rnd. Hard, hot breeze. +2 hits.	Foe loses 1 rnd of initiative. +2 hits. Strong heat; little effect.	Foe loses 1 rnd of initiative while he recovers his balance. +3 hits.	Foe loses initiative for 1 round. Not quite singeing. +4 hits.	Foe feels heat, loses 1 rnd initiative; if he has no armor, 2 rnds. +5 hits.
16-20	Foe loses initiative for 1 rnd. The nearby fire gives 3 more hits. Good blast, weak fire.	Blast unbalances foe. Foe loses initiative for 2 rounds.	Foe loses initiative for 2 rounds. +5 hits.	Foe is unbalanced and must parry for 1 round. +6 hits.	Hot, unbalancing blast. Foe must parry for 1 round. +7 hits.
21-35	Blast unbalances foe. He loses initiative for 2 rnds. +4 hits.	Foe loses initiative for 2 rnds. Bothersome smoke. +6 hits.	Light burns. Foe must parry for 1 rnd. 1 hit per rnd. +7 hits.	Minor burns. Foe must parry for 2 rnds. 1 hit per rnd. +8 hits.	Minor burns. Foe must parry for 2 rnds. 2 hits per rnd. +9 hits.
36-45	Foe must parry for 1 round. +6 hits.	Light burns. Foe must parry for 1 round. +7 hits. Foe takes 1 hit per round.	Minor burns force foe to parry for 2 rounds. +8 hits and 1 hit per round.	Blast stuns foe for 1 round. +9 hits. Foe takes 2 hits per round due to pain and suffering.	Blast stuns foe for 1 round. +10 hits. Foe take 3 more hits per round. If he is wearing a cloak, it is destroyed.
46-50	Light burns. Foe must parry for 1 round. +7 hits, and foe takes 1 hit per round.	Minor burns. Foe must parry for 2 rounds. +8 hits. Foe takes 1 hit per round.	Fire stuns foe for one round. +9 hits. Foe takes 2 hits per round. Minor burns.	Fire stuns foe for 1 round. +10 hits. 3 hits/rnd. If foe is using a non-metal bow, it is destroyed.	Fire stuns foe for 2 rounds. +12 hits and 3 hits per round. If foe is using a wooden weapon, it is destroyed.
51-55	Blast unbalances foe. +8 hits. Foe must parry for two rnds and takes 1 hit per rnd.	Blast stuns foe for 1 round. +8 hits. Foe takes 2 hits per round. Wide shot, strong fire.	Blast stuns foe for 2 rnds. +9 hits. If foe has leg armor, he takes 1 hit per rnd. If not, 3 hits per rnd.	Blast stuns foe 2 rnds. If foe has a helmet, he takes 8 hits and 2 per rnd. If not, 11 hits and 4 per rnd.	Foe reels back 3 feet. Stunned and unable to parry for 1 rnd. Takes 3 hits per rnd from hot blast. +13 hits.
56-60	Foe is stunned for 1 round. +9 hits. Foe loses initiative for 2 rounds and takes 2 hits per round.	Foe is stunned for 2 rounds. If foe is in metal armor and has leg armor, +8 hits. If not, +9 hits and 3 hits per round.	Blast stuns foe for 2 rounds. +10 hits. Foe takes 2 hits per round. All other cloth covering on foe's back is destroyed.	Foe's clothing ignites; stunned and unable to parry for 1 rnd, takes +9 hits/rnd while aflame (2 rnds to extinguish fire). +12 hits.	Fire stuns foe 2 rounds; +15 hits. Foe cannot parry for 1 rnd. He fights at -10 and burns deliver 3 hits per round.
61-65	Foe is stunned for 2 rnds. If he has leg armor, he takes +7 hits and one hit per rnd. If not, he takes +10 hits and 3 per rnd.	Foe is stunned and unable to parry for 1 round. +9 hits, and 2 hits per round. Foe fights at -5 (leg burns).	Foe is stunned and unable to parry for 1 round. +10 hits, foe takes 3 hits per round and fights at -10. Upper leg burns.	Foe is stunned 2 rnds and unable to parry for 1. If foe has leg armor, he takes +10 hits and 4 hits per rnd. If not, +13 hits and 6 hits per rnd.	Searing blast burns foe's legs. Foe is stunned and unable to parry for 2 rounds. He takes 4 hits per round and fights at -10. +15 hits.
66	Blast causes foe to drop what he is holding. Stunned and unable to parry for 2 rnds and is at -15 (chest burns). +9 hits.	Foe is stunned 2 rounds. If foe wears organic armor, it is now useless. +10 hits. Foe takes 4 hits per rnd from chest blast.	Chest blast knocks foe down. If arm armor, he takes 2 hits/ rnd. If not, his weapon arm is useless and he takes 4 hits/rnd. +12 hits.	Neck blast. If foe has neck armor, he takes 3 hits/rnd and fights at -10. If not, foe is unconscious and takes 10 hits per round.	Head strike. If foe has a helmet, he is knocked out and takes 5 hits per rnd. If not, foe is killed instantly, his head fully vaporized. Fine aim.
67-70	Back blast. Foe is stunned for 2 rounds. Foe takes 2 hits per round and fights at -5. +8 hits.	Back blast. Foe is stunned for 2 rounds and unable to parry for 1 rnd. Foe takes 2 hits per rnd and fights at -10. +7 hits.	Back blast. Foe is stunned for 2 rounds and unable to parry for 1 round. Foe takes 2 hits per round and fights at -15.	Back blast. Foe is knocked down. +15 hits. Foe is out of action for 1 rnd. Foe takes 3 hits/rnd. Organic material on his back is destroyed.	Blast to foe's non-weapon arm. If foe has arm armor, he takes 4 hits/rnd and fights at -15. If no armor, foe takes 5 hits/rnd and loses use of arm.
71-75	Hot smoke blinds foe. Foe is stunned and unable to parry for 1 round. +12 hits.	Chest blast. Foe is stunned for 2 rounds and unable to parry for 1 rnd. Foe fights at -15. Add +10 to your next swing. +9 hits.	Chest blast. Foe is stunned for 3 rounds. If foe has organic chest armor, it is destroyed. If no chest armor, foe takes 6 hits per round and fights at -25.	Blast to foe's non-weapon arm. Any organic material in or on his arms is destroyed. He is stunned 6 rnds, loses use of arm, and fights at -50.	Chest blast. If foe has chest armor, it is destroyed. Foe takes +12 hits and is stunned 3 rounds. Otherwise, foe is knocked down, takes 6 hits/rnd and fights at -60.
76-80	Blast stuns foe for 2 rnds. Foe cannot parry for 1 round. +10 hits. Side wound. Foe takes 2 hits per round.	Arm strike. Burns stuns foe for 2 rnds. Foe takes 2 hits per rnd. All cloth on foe's weapon arm is burned off and foe drops whatever he is holding.	Blast to foe's non-weapon arm. He is stunned 6 rnds, loses use of arm, and fights at -50. Any organic material in or on his hands is destroyed.	Foes loses weapon hand. Severe burns. Any item in hand possibly damaged. Foe is stunned and unable to parry for 3 rounds, and takes 5 hits per round.	Blast to foe's non-weapon arm. If foe has arm armor, it is destroyed, foe loses his hand, and is stunned for 6 rounds. If not, foe loses arm and is knocked out. +20 hits.
81-85	Back blast. Foe is stunned for 2 rounds and is at -20. Burns deliver 2 hits per round. +8 hits.	Back blast. Foe is knocked down, stunned 1 rnd, and takes 2 hits/rnd. All organic material on foe's back is destroyed.	Leg blast. If foe has leg armor, he takes 2 hits/rnd and is at -20. If not, massive tissue damage; foe's leg is useless, and foe is at -80.	Blast burns both of foe's arms and all of upper chest. Foe loses use of arms and is stunned 9 rounds. +15 hits.	Foe inhales flame and gets parched throat and lungs. Foe expires in 12 painful rounds. +20 hits.
86-90	Blast knocks foe down. Fire destroys any of Foe's organic foot and calf covering. +10 hits.	Leg strike. Any organic leg covering catches fire and delivers 6 hits per rnd until extinguished (takes 1 rnd). Foe is stunned for 3 rnds. +10 hits.	Lower leg burns. Foe loses foot, but wound is cauterized. Foe is stunned and unable to parry for 6 rounds, takes 3 hits per round, and fights at -85. +15 hits.	Abdomen strike. If foe has abdomenal armor, it is destroyed, foe is knocked out, and takes 2 hits/rnd. If not, foe dies in 12 inactive rnds due to organ damage.	Foe's lower body is engulfed in flames. Foe dies in 9 rounds as a result of organ and tissue loss. +20 hits.
91-95	Fire burns foe in hip area. Foe is stunned and unable to parry for 2 rounds. Foe fights at -30. +12 hits.	Head strike. Foe is blinded and fights at -95 for 6 rnds. If foe has no helmet, 8 hits/rnd and loses 50% of head hair. Any organic helmet is destroyed.	Upper leg burns. Foe loses use of leg due to tissue loss, is stunned and unable to parry for 6 rounds, takes 4 hits per round and fights at -90. +18 hits.	Head strike. If foe has a full helmet, his eyes are destroyed and he is in a coma for 2 days. If not, foe dies in 6 rounds due to massive shock and brain damage. +20 hits.	Chest strike. All organic material on foe's body is destroyed. Foe dies of shock and nerve damage in 6 rounds. +25 hits.
96-99	Blast to foe's neck area. If foe has neck armor, he is stunned and unable to parry for 3 rounds. If not, foe is down and taking 8 hits per rnd.	Neck strike destroys foe's throat. +20 hits. Foe takes 12 hits per round and is inactive for 9 rounds. Foe then dies. Add 10 to your next roll.	Chest strike. If foe has chest armor, it is destroyed and foe dies of burns in 9 rnds. If not, foe's chest cavity is a hollow cinder and he dies instantly.	Foe's side is engulfed in flames. Foe dies in 6 rounds due to multiple compound fractures, tissue and organ loss, and boiling blood. +20 hits.	Foe is instantly dehydrated into dust. Add +10 to your next roll.
100	Searing blast to foe's head. If helm, he is knocked out and takes 7 hits/rnd. If not, he is in a 1 month coma and loses 50% of his Presence. +15 hits.	Blast to foe's neck fuses vertebrae and unites skin with clothing. Very unpleasant. Foe is paralyzed permanently. +25 hits.	Foe's head is but a charred stump. Sadly, foe cannot handle the loss and he dies instantly. Add +10 to your next roll.	Heat vaporizes foe's midsection, destroys foe's clothing, armor, and all items he carries. Foe is cut in half and dies. Add +15 to your next roll.	All that remains of foe are charred bits of teeth and bone. Add +20 to your next roll.

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18.3 ELECTRICITY CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	A lot of static. +0 hits.	Foe's hair stands up. +0 hits	+1 hit	+2 hits	+3 hits
06-10	+1 hit	+2 hits	+3 hits	+4 hits	Foe loses initiative for 1 rnd. +4 hits
11-15	Foe loses initiative for 1 round. +2 hits.	Foe loses initiative for 1 round; the metal he bears begins to buzz. +2 hits.	Foe hears crackling sound and loses 1 round of precious initiative. +3 hits.	Foe loses initiative for 1 round. The smell of danger is in the air. +4 hits	If foe has metal armor, he loses 2 rounds of initiative. If not, foe is stunned but 1 round. +5 hits.
16-20	Foe is spun about and loses 1 round of initiative. +3 hits.	Explosion of light causes foe to lost 1 rnd of initiative. +4 hits.	Eruption of smoke forces foe to lose 2 rnds of initiative. +3 hits.	Foe is unbalanced, but the strike is weak. Must parry next rnd. +4 hits	Glancing strike stuns foe for 1 round. +6 hits
21-35	Blast unbalances foe. He loses 2 rounds of initiative. +4 hits.	Crackling blast forces foe to lose 2 rnds of initiative. +5 hits.	Strong but glancing blast forces foe to parry next round. +6 hits	Light burns. Foe must parry for 2 rnds. takes 1 hit per rnd. +5 hits.	Foe gets a minor scorching and is stunned for 2 rounds. +10 hits.
36-45	Light distracts foe, and he must parry for 1 rnd. +5 hits.	Minor burns. Must parry for 1 rnd; takes 1 hit/rnd. +2 hits.	Foe feels the heat and must parry for 2 rounds. +7 hits.	Blast stuns for 1 round. Foe fights at -10 for 2 rounds. +7 hits.	Smoke and light stun foe for 2 rnds. Foe fights at -10 for 2 rnds. +12 hits.
46-50	Minor burns. Foe must parry for 1 round and takes 1 hit per round. +2 hits.	Blast forces foe to parry for 2 rounds. +6 hits.	If foe has metal armor, he is stunned 2 rounds. If not, foe is stunned for 1 round. +7 hits.	Explosion of light and fire stuns foe for 2 rounds. Foe fights at -10 for 2 rounds. +7 hits.	If foe has metal armor, he is stunned and unable to parry for 2 rnds. If not, foe is stunned 2 rnds. +13 hits.
51-55	Sizzling but weak blast stuns foe for 1 round. +6 hits	Foe is spun about and is stunned for 1 round. A minor burn on foe's leg causes 2 hits per round. +7 hits.	Strike to foe's leg. If foe has leg armor, he is stunned 1 rnd. If not, foe is stunned and unable to parry 1 rnd and takes 3 hits per rnd.	Blast stuns foe for 2 rounds and foe is unable to parry for 1 round. +10 hits.	Hot smoke and light stuns foe for 4 rounds. Foe loses initiative for 6 rounds. +13 hits.
56-60	Foe is unbalanced and is forced to parry next 3 rounds. +7 hits.	Foe is stunned for 2 rounds. If foe has metal armor, he cannot parry for 1 rnd. +8 hits.	Blast stuns foe for 2 rounds. Foe cannot parry for 1 round. leg hit. +9 hits.	Strike to foe's non-weapon arm. If foe has metal armor, he is knocked out for 1 day. +15 hits.	Strike to foe's weapon arm. Foe drops all that is in his weapon hand. Stunned for 2 rnds. 2 hits per rnd.
61-65	Chest strike. If foe has metal armor, he is stunned for 2 rounds. If foe has no armor, he is stunned 3 rounds.	Upper leg strike. Foe is stunned and unable to parry for 1 round. +9 hits.	Foe is stunned and unable to parry for 2 rounds. +10 hits.	If foe has armor over abdomen, he takes 2 hits/rnd, stunned 2 rnds due to minor burns. If not, burns stun foe 6 rnds, 3 hits/rnd.	Leg strike. Foe is knocked down and stunned for 2 rounds. Foe cannot parry for 1 round. +14 hits.
66	Blast of light and smoke stun all within 5 feet of foe for 1 round. Foe is knocked down and stunned for 3 rounds.	Chest strike. Foe is stunned and unable to parry for 3 rnds, takes 3 hits per rnd, and fights at -20. +15 hits.	Chest strike. If foe has metal armor on arms and over chest, it becomes fused and he cannot use arms. If not, foe is knocked out for 6 hours and takes +9 hits.	Neck blast knocks foe out. Foe cannot speak for 2 months and takes +4 hits per round. +20 hits.	Head strike. If foe has a leather helmet, it is destroyed and foe is in a coma for 2 months. If not, foe's brain is fried and he dies instantly. Add +10 to your next roll.
67-70	Back strike. Foe is stunned and unable to parry for 1 round. +7 hits.	Back strike. Foe is stunned for 2 rounds and cannot parry for 1 round. +10 hits.	Back strike. Foe is stunned and unable to parry for 2 rnds. Burns force foe to fight at -10. +11 hits.	Back strike. Foe is knocked down and out of action for 1 rnd. Minor shock. Foe fights at -20. +12 hits.	Back strike. Foe is stunned and unable to parry for 4 rounds. Minor shock. Foe fights at -25. +15 hits.
71-75	Blast stuns foe for 3 rounds. foe fights -5 for 6 rounds. +8 hits.	Strike to foe's non-weapon arm. If foe has arm armor, he is stunned for 4 rnds. If not, foe's arm is useless, foe is stunned and not able to parry for 2 rounds.	Strike to foe's non-weapon arm. If foe has a metal arm armor, he is stunned for 6 rnds and takes +12 hits. If not, foe is knocked down, arm is useless, +13 hits.	Strike to foe's weapon arm. Arm is useless and foe is stunned for 3 rounds. +13 hits.	Shoulder strike shatters bone in foe's weapon arm. Muscle and cartilage damage. Arm is useless. foe is stunned for 6 rounds, and takes 3 hits per round
76-80	Strike to foe's upper chest stuns foe for 2 rounds. Foe cannot parry for 1 round. +9 hits.	Chest strike. Foe is knocked down and takes 2 hits per round due to bleeding. +11 hits.	Chest strike. If foe has chest armor, he is stunned 6 rnds, 2 hits/rnd, fights at -5. If not, foe is knocked out for 3 days (shock).	Chest strike. If foe has metal chest armor, he is knocked out, +25 hits. If not, foe is stunned and unable to parry for 6 rnds and takes +15 hits.	Chest strike. Foe is knocked out due to shock. Blood loss and nerve damage cost foe 3 hits per round. +18 hits.
81-85	Back blast. Foe is stunned and unable to parry for 2 rounds. +12 hits.	Back blast. Foe is stunned and unable to parry for 3 rounds. Muscle is torn and foe fights at -10. +13 hits.	Thigh strike. Foe takes 2 hits per round. Bones breaks and torn cartilage. Foe is stunned for 4 rounds and fights -40.	Lower back strike. Nerve damage and shock. Foe is stunned for 30 rounds and takes 3 hits per round. +15 hits.	Foe becomes a conductor and strike rearranges his entire nervous system. Foe drops and lies in shock for 12 rounds before dying.
86-90	Blast knocks foe down. If foe has metal leg armor, he loses use of leg due to nerve damage. If not, +15 hits and foe is stunned and unable to parry for 2 rounds.	Leg strike. If foe has leg armor, he is stunned and unable to parry for 6 rnds. If not, foe's leg is broken, it has damaged nerves, and foe is stunned for 6 rounds and fights at -50.	Blast shatters foe's knee and destroys a variety of nerves. Foe fights at -60 and is stunned and unable to parry for 2 rounds.	Abdomen strike. If foe has armor over abdomen, he is stunned for 9 rounds and takes 6 hits per round. If not, foe dies of shock and bleeding in 12 rounds.	Blast crushes pelvis and shatters lower backbone. Foe's spine is burned into a multitude of small parts. Foe is knocked out and dies in 12 rounds.
91-95	Hip strike. If foe has hip armor, foe is stunned 6 rnds; +10 hits. If not, foe is stunned 3 rnds and acts at -50 due to shock and nerve damage.	Head strike. Foe loses nose, he is temporarily blinded for 2 weeks, and is stunned for 9 rnds. Foe is at -95 while blind. If no helm, he is knocked down.	Strike through foe's lower abdomen. Massive shock and bleeding. If abdomen armored, foe is at -75; takes 5 hits per rnd. If not, foe dies in 6 inactive rnds.	Side strike devastates foe's nervous system. Foe falls into a coma and goes into severe shock. Foe is a living vegetable. +30 hits.	Side strike melts foe's lower skeleton and destroys a variety of organs. Foe dies in 9 inactive rounds. +25 hits.
96-99	Neck & shoulder strike. If foe has neck armor, he is stunned and unable to parry for 6 rnds. If not, he is knocked out. loses ability to speak. +10 hits.	Head strike. Blast cracks skull and causes massive shock and brain damage. Foe drops and dies in 9 rounds. +15 hits.	Chest strike destroys foe's heart and lungs. If foe has metal chest armor, it is a fused lump and foe dies in 6 rounds. If not, foe dies instantly.	Chest strike knocks foe back 10 feet. Massive nerve damage. Foe dies of fatal shock in 3 rounds. +20 hits.	Chest strike destroys both of foe's lungs and cuts foe in half. Blast continues to a point 10 feet beyond foe (subtract 20 if it strikes second target).
100	Head strike. Foe's brain falls victim to massive shock and surface burns. Foe drops into unconsciousness, and dies in 6 rounds. +20 hits.	Blast through foe's neck severs head and kills foe instantly. Add +10 to your next attack roll.	Foe's head is no longer available. Smoke and ozone surround the lifeless body. Add 10 to friendly witnesses' rolls for 3 rounds.	Foe's nervous system acts as a superconductor. Foe's sad instant death provides all the witnesses with a fine light show. Add +15 to your next roll.	Foe returns to the dust from which he came. Add +20 to your next roll.

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18.4 VACUUM CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	Cool breeze delivers no hits.	Refreshing breeze ruffles hair. Boy, does he look cool.	Target's ears pop. +1 hit.	Winds distract target; he loses initiative for 1 round.	+1 hit.
06-10	Chilly breeze delivers 1 hit.	+1 hit.	Target's ears pop audibly; +2 hits.	+2 hits; target forced to parry 1 rnd	+3 hits, target must parry next round.
11-15	Cold breeze delivers 2 hits	+2 hits.	Target's ears really pop. +3 hits, permanent minor hearing loss.	+4 hits and target must parry for 1 round.	+5 hits.
16-20	Icy wind delivers 5 hits, target loses a round of initiative	Target is unbalanced. +3 hits and he must parry one round.	Inner ears pop. Target unbalanced. +5 hits, must parry 1 rnd.	Escaping air stuns target for 1 round; he takes 6 hits.	Airburst stuns target and delivers 7 hits.
21-35	Staggering airburst gives target 3 hits and he loses 2 rounds of initiative.	Blast of air unbalances target. +5 hits and he is forced to parry 1 round	Pressure change causes equilibrium problems. +6 hits, stunned 1 round.	Fleeing oxygen gives target pause he is stunned for 2 rounds.	Target stunned no parry 1 round; 9 hits.
36-45	Rushing winds deliver 3 hits; target unbalanced (and stunned 1 round)	Escaping environment buffets target, delivering 8 hits and stunning him for 1 round	Target is muddled and must parry for 2 rounds. +7 hits	Roaring winds confuse target. He is stunned 3 rounds and takes 8 hits.	Target stunned 4 rounds by freezing air.
46-50	Target loses 3 rnds of initiative in the rush of air. +2 hits.	Howling winds force target to parry for 2 rounds. +6 hits.	Target stunned for 1 round. +8 hits	Target slashed by debris +10 hits and 5 per round	Target struck by debris. +20 hits, 2 per round and stunned 2 rounds.
51-55	Target unbalanced. +6 hits, stun for 1 round.	Whirlwind stuns foe for 1 round. +8 hits.	Debris strikes target in leg; he is stunned 1 round, and takes 2 hits per round	Target's hand is struck by debris; off-hand wrist is sprained and at -50. +12 hits and stunned for 2 rounds	Target struck in weapon-arm; 50% chance item in hand is dropped (and lost in vacuum). +10 hits and stunned 5 rounds
56-60	Cold and air loss take target's breath away; he is stunned for 3 rounds and takes 15 hits.	Deafening howl of escaping air; +10 hits; renders target stunned and unable to parry for 1 round.	Blast stuns target for 2 rounds; he cannot parry for the first round. Leg hit, +9 hits	Airburst staggers target, +10 hits; he is stunned and unable to parry for 1 round.	A flurry of sharp metal fragments slash target. +20 its and 7 per round.
61-65	Fog of rushing air stuns target for 2 rounds. +10 hits.	Target does a forced about face, stunning him for 3 rounds.	Target spun about. +5 hits. Stun 3 rnds, loses initiative for 3 more.	Target spins like a top. +10 hits, and foe is stunned no parry 2 rnds	Target whirls like a gyroscope. +15 hits; foe is stunned no parry 2 rnds.
66	Blast sends target spinning. +10 hits, left arm is broken and useless; he is stunned for 5 rounds	Target hears bells; eardrums burst and hearing permanently damaged. Nose bleeds: 2 hits/rnd +18 hits. -50 to activity for 5 rounds.	Flying debris strikes target in head, +12 hits and he is stunned 6 rounds by impact. If no helmet skull is fractured, target unconscious with concussion.	Target flung outward by winds, but gets a reflexive grip on the edge of the breach. 25 hits, Stunned no parry 5 rnds (but holding on until unconscious).	Wasting no time, target zips out through hull breach. Surrounded by a cloud of frozen oxygen, he explores the final frontier. If he has a spacesuit, fine; if not, he is dead after 6 rounds. Wave good-bye.
67-70	Flying debris strikes target in back, he is stunned for 1 round. +8 hits	Winds stun target 1 round, deliver 2 hits.	Back strike. Target is stunned and cannot parry for 2 rounds. Target is at -10. +11 hits.	Target thrown 2 meters and slammed against a bulkhead. He is stunned 3 rounds and takes 10 hits	Lack of air takes target's breath away. He is at -50, stunned 3 rounds, and takes 10 hits.
71-75	Blast of fleeing atmosphere disorients target: he is stunned and unable to parry for 1 rnd	Fog of escaping gas confuses target and stuns him 3 rounds.	Airborne stuff blinds target, stunning him for 2 rounds and delivering 10 hits.	Whirling debris strikes target in head; +15 hits; a minor concussion; stunned no parry for 2 rnds	Flying debris strikes target in head. He is stunned no parry 2 rounds. +15 hits
76-80	Crystallizing atmosphere cloud stuns target for 2 rounds, +15 hits. Foe is unable to parry for one round.	Whirling oxygen crystals blind target, stunning him for 4 rounds.	Now you know why it's called "Hard" vacuum: blast knocks the wind out of target, +15 hits, breaks ribs; stuns him for 3 rnds.	Depressurization damages ears. Inner ear equilibrium upset, stun 3 rnds, +10 hits. Maneuvers at -50 for 2 days. Permanent deafness.	Decompression collapses one lung and destroys hearing. Target at -70; +20 hits and he is stunned 6 rounds.
81-85	Swirling debris delivers 10 hits and breaks two of target's ribs; he is at -25	Blast sends target careening 2m, impact causing broken leg. Foe is at -50, stunned 3 rnds; +15 hits. (Strapped in target only takes 5 hits).	Brutal wind carries target 3 meters, slamming him against a hard surface. Foe is stunned for 10 rnds; +25 hits. (Strapped-in target only takes 10 hits).	Escaping atmosphere drags target 4m, battering him on the way. Both of his arms are broken; stunned for 4 rnds; +25 hits. Strapped in target only +15 hits; stunned 2 rnds	Explosive decompression hurls target 5m, pummeling his poor body. Internal organs are damaged; +50 hits, dies in 12 rnds. Strapped in target only +25 hits; stunned 8 rnds.
86-90	Target feels his blood simmering. +10 hits and 5 per round while exposed	Target's boiling blood delivers 15 hits and 7 per round while he is exposed to vacuum.	Target's blood starts to boil: +30 hits and 10 per round while exposed. He is stunned for six rounds.	Target's blood is bubbling. +40 hits and 15 per round while exposed. He is stunned for eight rounds	Target's circulatory system becomes a balloon; +50 hits; 20 hits/rnd while exposed. Stunned for 3 rnds, then (if exposure continues) unconscious as major organs are seriously damaged. Poor bloated fool dies in 12 rnds.
91-95	Disconcertingly, target bleeds through nose and ears. He is at -30, takes 10 hits, 3 hits per round and is stunned for 5 rounds	Unpleasantly, target bleeds through eyes, nose, and ears. He is at -50, takes 15 hits, 5 hits per round and is stunned for 7 rounds.	Grossly, target begins to bleed through eyes, nose, ears and under fingernails. He is at -70, takes 20 hits, 7 hits per round and is stunned for 9 rounds	Disgustingly, target bleeds through all of his bodily orifices. He is at -80, takes 25 hits, 9 hits per round and is stunned for 10 rounds.	In a clear attempt to gross everyone out, target bleeds through all his pores. He is at -90, +30 hits, 12 hits/rnd and is stunned for 6 rnds before losing consciousness (if not before).
96-99	Target is struck in the head. +20 hits. If foe has a helmet he is unconscious for 1 day; otherwise he is in a coma for 10 days	Target's lungs collapse. +20 hits; target is at -80 and dies in 12 agonizing rounds of asphyxiation	Sudden pressure change causes multiple internal organ malfunctions. Foe is completely incapacitated for 10 rounds, then dies.	Target is slammed by rushing air. +25 hits; bone is driven into target's internal organs, killing him in three helpless, painful rounds.	Target unwittingly attempts to turn inside out. Unsuccessful (sort of), he loses use of all sensory organs as well as lungs; tumbles, unconscious, through deep space. +80 hits.
100	Target is knocked down and is struck on the head. +25 hits. Helmet is crushed and useless; target stunned 5 rounds. If no helmet, skull is fractured; target dies in 3 rounds.	Luckily, target is lodged between conduits within 3 meters of a door to safety, avoiding an unpleasant space walk. Unluckily, his spine is damaged and he is paralyzed from the waist down. +25 hits.	Explosive blast sends target's brain out through ears. He is quite dead	Lack of air pressure disrupts lungs, eyes and ears. Not a pretty sight. Target dies in 12 messy rounds, blind and deaf	Rather abrupt decompression. Target explodes into billions and billions of tiny bits of flesh, quite severely dead

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18.5 RADIATION CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	What radiation?	They're only sub-atomic particles.	Nothing worse than a day at the beach.	Target looks a little red, but it's nothing serious.	Target was lucky, this time.
06-10	Warm draft.	Fast neutrons stay clear of target. Lucky.	This could have been really bad.	+3 hits.	+5 hits. It must have been those cool sun glasses.
11-15	The experts say it's nothing to worry about.	Target has little to worry about.	A mild headache is the end result.	+4 hits. These may only be healed by anti-radiation treatment.	+8 hits. These may only be healed by anti-radiation treatment.
16-20	Bright flash reduces target's vision by 50% for 3 rounds.	Zip.	Insignificant damage.	Mild irradiation. Target at -10 until treated.	Radiation sickness. Target loses hair, teeth, and nails within a day. He is at -50 for 5 days, after which he dies.
21-35	Afterglow reddens target a shade.	Walking in front of a neon sign would be more dangerous.	+4 hits; may only be healed by anti-radiation treatment.	Rad build-up will produce a cancer in target within the next 5 years.	Severe exposure drops all of target's temporary stats by 1-10 . Really bad.
36-45	Microbes on target's skin have a rough time of it.	+2 hits.	Mild radiation sickness. Hair falls out in three days, and target is at -30 until treated.	Target's vision blurs. Perception is at -30 until treated. +5 hits.	Sizzling beams raise blisters on target's red-hot skin. He is at -60 until treated and takes 1 hit per round whenever he moves. +10 hits.
46-50	A few cells spontaneously mutate, but quickly die off.	Target may (50% chance) develop tumour within 5 years.	Target has a 10% chance of fainting each minute. He is out for 1-10 hrs and at -20 for 5 days.	Organ damaged. One of target's internal organs will fail in 1-10 hours.	Severe Radiation sickness. Target will die within a day unless treated, and is at -50 while he waits. +12 hits.
51-55	Target will feel queasy (-10) in an hour. It will last for only 4 hours.	Target will feel ill. -15 to actions for 6 hours, beginning in one hour.	Mild radiation sickness. Hair falls out; sores develop in 1-5 days. Target at -30 until treated. 50% chance of a cancer within a year.	Rays weaken target. His temporary Strength stat is reduced by 15 while the temporary Constitution stat falls by 5.	Deadly rays course through target. In ten minutes, he is struck by severe nausea (operates at -60) lasting 1-10 days. Target then dies.
56-60	Target's vision becomes hazy in 30 minutes (perception at -20). It will last until treated.	Telepathic target loses 1-10 PP's. All targets at -10 until treated.	Rad accumulation will produce a cancer within a year.	Waves give target +20 hits that may only be healed by anti-radiation treatment. Target stunned 6 rnds.	Severe burns. Target at -70 until treated. He is stunned for 6 rounds.
61-65	Some tactile sensation will be lost to the target (operates at - 5) until treated. Effect manifests itself after an hour.	Target will have a headache in 10 min which will last for 1-10 hrs during which target will be at -20. It will recur 1 day later.	Telepathic target loses 1-10 PP's and is stunned for 6 rounds. All targets at -15 until treated.	Telepathic target loses Psion casting ability for 1 day. All target's are at -20 until treated.	Telepathic target loses Psion casting ability for 1-10 years. All targets at -50 until treated. +15 Hits.
66	Rays course through body. Target has 50% chance of producing mutated offspring.	Bitter chromosome damage to target's reproductive organs. Offspring have a 75% chance of being mutants.	Hot rays sterilize target. +5 hits. Sad.	Rays sterilize target. Target will die in 10 hours due to organ failure.	Widespread cellular damage gives target +40 hits and sends him into a coma. He will die in 1-10 minutes.
67-70	Minor loss of hand-eye coordination manifested in 2 hours. Static maneuvers at -15. Effect will last for 2 days.	Loss of hand-eye coordination for 5 days. Static maneuvers at -20 during that time.	Target loses hand-eye coordination and is at -40 to all maneuvers until treated.	Beams daze target. He is stunned for 20 rounds and is at -50 for all activities until treated.	Target dazed. He is stunned and unable to parry until treated. +17 hits. These hits may only be healed by anti-radiation treatment.
71-75	A minor skin cancer will develop within a year.	Target has difficulty concentrating. Reduce temporary Reasoning stat by 10 until treated.	Violent electromagnetic radiation raises sores on target's skin. He is at -30 until treated.	Radiation sickness. Hair lost, teeth and fingernails fall out, and sores appear within 1 day. Target at -40; will die in 1-10 days unless treated. Telepaths lose 1-10 PP's. +10 hits.	Target's skin blackened. He takes 4 hits per round and is at -80 until treated. Permanent Quickness and Agility stats are reduced by 2-20 points each.
76-80	Mild burn. Target at -10 for 2 days.	Rays give minor burn. Target takes 4 hits and is at -10 for 2 days.	Lingering radiation sickness. Target at -50 within one day. Hair and teeth begin to fall out. Target will die in 30 days unless treated.	Rad build-up will produce a malignant tumour within 6 months. Target at -40 until treated.	Target blinded and sent into a coma. Severe radiation sickness will kill target within a day unless treated.
81-85	Lingering rad buildup has a 50% chance of producing a cancer within 5 years.	Exposure gives target 7 hits which may only be healed by anti- radiation treatment.	Target receives second degree burns. He is at -30 for 6 days.	Selective rays destroy target's eyes. +15 hits.	Horrible rays reduce all of target's temporary stats by 2-20 and all permanent stats by 1-10. +19 hits
86-90	Mild burn. Target at -5 for 5 days.	Target irradiated and loses hair in two days. He operates at -20 until treated.	Electromagnetic waves damage a random internal organ. It will cease to function in 1-10 days. Tough.	Severe burns give target 3 hits per round. He is at -30. +17 hits.	A multitude of target's internal organs fail. Target drops and dies in 1-10 rounds. Telepathic targets lose all Psion Power.
91-95	Insidious exposure delivers 4 hits that may only be healed by anti-radiation treatment.	Burns crack target's skin. Target takes 1 hit per round and is at -10 until treated.	Target sees flash. He is blinded for 1-10 days, then at -30 to vision from then on.	Target zapped. He is blinded and stunned for 10 rounds, then operates at -60. He will die in one day unless treated.	Blistering rays fry target. He is sent into a coma and dies in 6 rounds
96-99	Second degree burn gives target 5 hits.	Bright flash blinds target for 1-10 hours.	Heavy rad dose reduces temporary Constitution stat by 20. Permanent Constitution is lost at the rate of 1 point/hr until treated.	Severe exposure. Target slips into coma and dies in 1-10 hours.	Sizzling burst leaves but a few remains of target's former self. Sad.
100	Flash burns give target 10 hits. Target at -15 for 7 days.	Target at -20 until treated, and will develop a cancer within 6 months.	Target's skin flash-fried. +30 hits. Target knocked out and takes 4 hits per round. He will die in 2-20 hours unless treated.	Target's blood boils. He drops immediately and dies in 6 rounds due to massive internal damage.	Target glows white before vanishing utterly.

19.1 AUTO CANNON / PROJECTILE ATTACK TABLE

UM 01-02 = Weapon Failure. Roll 1D10: 1-7 = Temporary Jam (weapon may fire next round);
8-10 = Malfunction (roll for severity)

All Criticals from **A** to **E** are Pierce.

F = E Pierce and A Blast   **G** = E Pierce and C Blast   **H** = E Pierce and E Blast

Auto Cannon / Projectile Attack Table (results 01–60)

	30	29	28	27	26	25	24	23	22	21
01-02	F	F	F	F	F	F	F	F	F	F
03-08	0	0	0	0	0	0	0	0	0	0
09-10	0	0	0	0	0	0	0	0	1	1
11-12	0	0	0	0	0	0	0	0	1	1
13-14	0	0	0	0	0	0	0	1	1	1
15-16	0	0	0	0	0	0	0	1	1	1
17-18	0	0	0	0	0	0	1	1	1	1
19-20	0	0	0	0	0	0	1	1	1	1
21-22	0	0	0	0	0	1	1	1	1	1
23-24	0	0	0	0	0	1	1	1	1	1
25-26	0	0	0	0	0	1	1	1	1	2
27-28	0	0	0	0	1	1	1	1	1	2
29-30	1	0	0	0	1	1	1	1	2	2
31-32	0	0	0	0	0	0	1	1	2	2
33-34	0	0	0	0	1	0	1	1	2	2
35-36	0	0	0	0	0	0	1	1	2	2
37-38	0	0	0	0	0	0	1	1	2	2
39-40	0	0	0	0	1	0	1	1	2	2
41-42	0	0	0	0	1	1	1	1	2	3
43-44	0	0	0	0	0	0	1	1	2	3
45-46	0	0	0	0	0	0	1	2	2	3
47-48	0	0	0	0	0	0	1	2	2	3
49-50	0	0	0	0	0	0	1	1	2	3
51-52	0	0	0	0	1	1	1	1	2	4
53-54	0	0	0	0	1	1	1	1	2	4
55-56	0	0	0	0	1	1	1	2	2	5
57-58	0	0	0	0	1	1	2	2	2	6
59-60	0	0	0	0	1	1	1	2	2	7

Auto Cannon / Projectile Attack Table (results 61–150)

	21	22	23	24	25	26	27	28	29	30
61-62	8	3	2	1	1	1	0	0	0	0
63-64	9	3	2	1	1	1	1	0	0	0
65-66	10A	4	2	1	1	1	1	0	0	0
67-68	11A	4	3	1	1	1	1	0	0	0
69-70	12A	5	3	2	1	1	1	0	0	0
71-72	13A	5	4	2	1	2	1	0	0	0
73-74	14A	6	4	3	1	2	1	0	0	0
75-76	15A	6	5	3	1	3	1	0	0	0
77-78	16A	7	5	4	1	3	1	1	0	0
79-80	18A	8	6	4	2	4	2	1	0	0
81-82	19A	9	7	5	2	3	2	1	0	0
83-84	21A	10	8	6	2	5	2	1	0	0
85-86	22B	11A	9	7	3	6	3	1	0	0
87-88	24B	13A	11	8	3	7	3	1	0	0
89-90	26B	14A	12	9	4	8	4	1	0	0
91-92	28B	16A	14	10	5	9	4	1	0	0
93-94	30B	17A	15	12	6	10	5	1	0	0
95-96	32B	19A	17	13	7	12	5	1	0	0
97-98	34B	21A	19	15	8	14	6	2	0	0
99-100	36C	23A	21	17	9	16	7	2	1	0
101-102	38C	25B	23A	19	10	18	8	3	1	0
Maximum Result For Mk. 10 Weaponry										
103-104	40C	27B	25A	21	11	20	9	3	1	0
105-106	42C	29B	27A	23	12	22	10	4	1	0
107-108	44C	31B	29A	25	13	24	11	4	1	0
109-110	46C	33B	31A	27	14A	26	12	5	1	0
111-112	48C	35B	33A	29	15A	28	13	5	1	0
113-114	50C	37B	35A	31	16A	30	14	6	1	0
Maximum Result For Mk. 20 Weaponry										
115-116	52C	39B	37A	33	17A	32	15	6	1	0
117-118	54C	41B	39A	35	18A	34	16	7	1	0
119-120	56C	43B	41A	37	19A	36	17	7	1	0
121-122	58C	45B	43A	39	20A	38	18	8	1	0
123-124	60D	47B	45A	41	21A	40	19	8	1	0
125-126	62D	49C	47B	43	22A	42	20	9	2	1
Maximum Result For Mk. 30 Weaponry										
127-128	65D	51C	49B	45	23B	44	21	9	2	1
129-130	68D	54C	52B	47A	25B	46	22	10	3	1
131-132	71D	57C	55B	49A	27B	48	23	10	3	1
133-134	75D	61C	59B	51A	29B	50	24	11	4	2
135-136	82E	66C	63B	54A	32B	52A	26	11	4	2
137-138	92E	72D	68C	58B	36B	55A	29A	12	5	2
Maximum Result For Mk. 40 Weaponry										
139-140	115E	80D	75C	63B	41B	60B	33A	13A	6	2
141-142	145E	90D	85C	70B	50B	70B	38A	15A	7A	3
143-144	200F	115E	105C	85B	70B	90B	47A	20A	9A	5
145-146	300G	170F	150D	115B	110C	130B	65B	30A	14A	7A
147-148	500H	280G	240E	175C	190D	210C	95C	50B	20B	12A
149-150	900H	500H	420F	300D	350E	370D	155D	90C	35C	20B
Maximum Result For Mk. 50 Weaponry										

19.2 LASER CANNON ATTACK TABLE

21	22	23	24	25	26	27	28	29	30	
12B	11B	9A	7A	3A	3	1	1	2	0	61-62
12B	12B	10A	8A	4A	4	2	1	2	0	63-64
13B	12B	10A	8A	4A	4	2	1	2	0	65-66
13B	13B	11A	9A	4A	4	2	1	3	0	67-68
14B	13B	11A	9A	4A	4	2	1	3	0	69-70
14B	14B	12A	10A	5A	5	2	1	3	0	71-72
15B	14B	12B	10A	5A	5	2	1	3	1	73-74
15B	15B	12B	10A	5A	5	2	1	3	1	75-76
16B	15B	13B	11A	5B	5	2	1	3	1	77-78
16B	16B	13B	11A	5B	5	2	1	4	0	79-80
17B	16B	13B	11B	5B	5	2	1	4	0	81-82
17C	16B	13B	11B	5B	5	2	1	4	0	83-84
18C	17B	14B	11B	6B	5A	2	1	4	0	85-86
18C	17B	14B	12B	6B	6A	3	1	5	0	87-88
19C	17B	14B	12B	6B	6A	3	1	5	0	89-90
19C	17C	14B	12B	6B	6A	3	2	5	0	91-92
20C	18C	15B	12B	6B	6A	3	2	5	1	93-94
20D	18C	15B	13B	6B	6A	3	2	6	1	95-96
21D	18C	15C	13B	6C	6A	3	2	6	1	97-98
21D	18C	15C	13B	6C	6A	3	2	6	1	99-100
22D	19D	16C	13B	7C	6A	3	2	7A	1	101-102
Maximum Result For Mk.10 Weaponry										
22D	19D	16C	14B	7C	7A	3	2	7A	1	103-104
23D	19D	16D	14C	7C	7B	3	2	8A	1	105-106
23D	19D	16D	14C	7D	7B	3	2	8A	1	107-108
24D	20D	17D	14C	7D	7B	3	2	9A	1	109-110
24E	20D	17D	15C	7D	7B	3	2	9A	1	111-112
25E	20E	17D	15C	7D	7C	3A	2	10A	1	113-114
Maximum Result For Mk.20 Weaponry										
25E	21E	17D	15D	7D	7C	3A	2	11A	1	115-116
26E	21E	18D	15D	7D	7C	3B	2A	12A	1	117-118
27E	22E	18D	16D	8D	8C	4B	2A	13A	1	119-120
28E	23E	19D	16D	8D	8C	4B	2A	14A	2	121-122
29F	23E	19E	16D	8D	8C	4B	3A	15A	2	123-124
30F	24E	20E	17D	8E	8C	4C	3A	16B	2	125-126
Maximum Result For Mk.30 Weaponry										
31F	25E	20E	17D	8E	8C	4C	3B	17B	2	127-128
32F	26E	21E	18D	9E	8D	4C	3B	19B	2	129-130
33F	27E	22E	19E	9E	8D	4C	3B	20B	2	131-132
34G	28E	23E	20E	10E	9D	4C	3C	22B	2	133-134
35G	29E	24E	21E	10E	9D	4C	3C	23B	2A	135-136
37G	31F	25E	22E	11E	10D	5D	3C	25B	3A	137-138
Maximum Result For Mk.40 Weaponry										
40G	33F	28E	25E	12E	11D	5D	3C	27B	3A	139-140
50G	40F	32E	30E	14E	12D	6D	4D	29C	3A	141-142
70H	55G	38E	36E	16E	13D	7D	5D	31C	3B	143-144
100H	75G	46F	44E	20F	15E	8D	6D	33C	4B	145-146
140I	105H	58F	56F	28F	18E	10E	8D	35D	4C	147-148
190I	145I	74H	70G	42G	22F	15F	12E	40E	5D	149-150
Maximum Result For Mk.50 Weaponry										

UM 01-06 = Weapon Failure. Roll 1D10: 1-3 = Temporary Overload (weapon may fire next round); 4-10 = Malfunction (roll for severity)

All Criticals are Pierce.

F = E and A Criticals   G = E and B Criticals   H = E and C Criticals   I = E and D Criticals
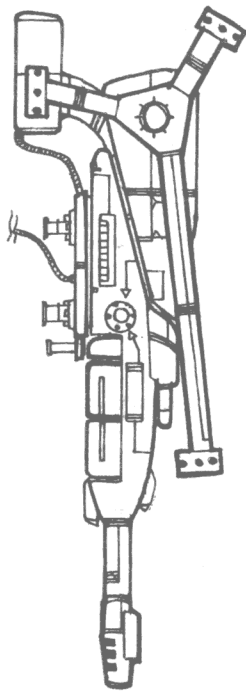
Laser Cannon Attack Table

30	29	28	27	26	25	24	23	22	21	
F	F	F	F	F	F	F	F	F	F	01-06
0	0	0	0	0	0	0	0	0	0	07-08
0	0	0	0	0	0	0	0	0	1	09-10
0	1	0	0	0	0	0	1	1	1	11-12
0	1	0	0	0	0	0	1	1	1	13-14
0	1	0	0	0	1	0	1	1	1	15-16
0	1	0	0	0	1	1	1	1	1A	17-18
0	1	0	1	0	1	1	1	1	1A	19-20
0	1	0	0	0	1	1	1	1	2A	21-22
0	1	1	0	1	1	1	1	1	2A	23-24
0	1	0	1	1	1	1	1	2	3A	25-26
0	1	1	0	1	1	1	1	2A	3A	27-28
0	1	0	1	1	1	2	1	3A	4A	29-30
0	1	0	1	1	1	1	2	4A	4A	31-32
0	1	0	1	1	1	1	2	4A	5A	33-34
0	1	1	1	1	1	1	3	5A	5A	35-36
0	1	0	1	1	1	1	3	5A	6A	37-38
0	1	1	1	1	1	2	4	6A	6A	39-40
0	1	0	1	1	1	2	4	6A	7A	41-42
0	1	1	1	1	1	3	5	7A	7A	43-44
0	1	1	1	1	1	3	5A	7A	8A	45-46
0	1	0	1	2	2	4	6A	8A	8A	47-48
0	1	1	1	2	2	4A	6A	8A	9A	49-50
0	2	1	1	2	2	5A	7A	9A	9B	51-52
0	2	1	1	2	2A	5A	7A	9A	10B	53-54
0	2	1	1	3	3A	6A	8A	10A	10B	55-56
0	2	1	1	3	3A	6A	8A	10B	11B	57-58
0	2	1	1	3	3A	7A	9A	11B	11B	59-60

19.3 BLAST CANNON ATTACK TABLE

UM 01-03 = Weapon Failure. Roll 1D10: 1-7 = Temporary Overload (weapon may fire next round);
8-10 = Malfunction (roll for severity)

All Criticals are Blast.

Blast Cannon Attack Table

Roll	21	22	23	24	25	26	27	28	29	30
01-03	0	F	F	F	F	F	F	F	F	F
04-10	1	0	0	0	0	0	0	0	0	0
11-12	2	1	0	0	0	0	0	0	0	0
13-14	2	1	1	0	0	0	0	0	0	0
15-16	2	2	1	0	0	0	0	0	0	0
17-18	2	2	1	0	0	0	0	0	0	0
19-20	3	2	1	0	0	0	0	0	0	0
21-22	4	3	1	0	0	0	0	0	0	0
23-24	5	4	2	0	0	0	0	0	0	0
25-26	6	5	2	0	0	0	0	0	0	0
27-28	7	6	2	0	0	0	0	0	0	0
29-30	8	7	2	1	0	0	0	0	0	0
31-32	9	8	3	1	0	1	0	0	0	0
33-34	11	9	3	1	1	1	1	0	0	0
35-36	13	10	3	1	1	2	1	0	0	0
37-38	15	11	4	1	2	3	2	0	0	0
39-40	17	12	5	2	3	4	3	1	0	0
41-42	19	13	6	2	3	5	3	1	0	0
43-44	21	14	7	3	3	6	3	1	0	0
45-46	23	15	8	3	4	7	4	1	0	0
47-48	25	16	9	3	4	8	4	2	0	0
49-50	27	17	10	4	4	9	4	2	0	0
51-52	29	18	11	4	5	10	5	2	0	0
53-54	31	19	12	4	5	11	5	2	0	0
55-56	33A	20	13	5	6	12	6	3	0	0
57-58	35	22	14	5	6	13	6	3	0	0
59-60	37A	24	15	5	7	14	7	3	0	0
61-62	39A	26	16	6	7	15	7	3	0	0
63-64	41A	28	17	6	8	16	8	3	0	0
65-66	43A	30	18	6	8	17	8	3	0	0
67-68	45A	32A	19	7	9	18	9	3	0	0
69-70	47A	34	20	7	9	19	9	3	0	0
71-72	49A	36A	21	7	10	20	10	4	0	0
73-74	51A	38A	22	8	10	21	10	4	0	0
75-76	53A	40A	23	8A	11	22	11	4	0	0
77-78	55B	42A	24A	8	11	23	11	4	0	0
79-80	57B	44A	25	9	12	24	12	4	0	0
81-82	59B	46A	26	9A	12	25	12	4	0	0
83-84	61B	48A	27A	10	13	26	13	4	0	0
85-86	63B	50A	28A	10A	13	27	13	4	0	0
87-88	65B	52B	29B	11A	14A	28	14	5	0	0
89-90	67C	54B	30A	11A	14	29	14	5	1	0
91-92	69C	56A	31A	12A	15	30	15	5	1	0
93-94	71C	58B	32A	12A	15A	31	15	5	1	0
95-96	73C	60B	33B	13A	16A	32	16	5	1	0
97-98	75C	62B	34A	13A	16A	33	16	5	2	0
99-100	77C	64B	35A	14A	17A	34	17	5	2	0
101-102	79C	66B	36B	14A	17A	35	17	6	2	1
— Maximum Result For Mk. 10 Weaponry —										
103-104	81C	68B	37B	15A	18A	36	18	6	3	1
105-106	83B	70B	38B	15A	18A	37	18	6	3	1
107-108	85C	72B	39B	16B	19A	38	19	6	3	1
109-110	87C	74B	40A	17A	20A	39	19	6	4	1
111-112	89C	76C	41B	18A	21A	40	20	7	4	1
113-114	91C	78B	42B	19B	22A	41	20	7	4	1
— Maximum Result For Mk. 20 Weaponry —										
115-116	93C	80B	43B	20B	23A	42	21	7	5	1
117-118	95C	82B	44A	21B	24A	43	21	7	5	1
119-120	97D	84B	45B	22B	25A	44	22	8	6	1
121-122	99C	86C	46B	23B	26A	45	22	8	6	1
123-124	101C	88B	47B	24A	27A	46	23	8	7	1
125-126	103D	90B	48B	25B	28A	47	23	9	8	2
— Maximum Result For Mk. 30 Weaponry —										
127-128	105D	92B	49B	26B	29A	48	24A	9	9	2
129-130	107D	94B	50B	27B	30B	49A	24	10A	10	2
131-132	109E	96C	51B	28B	31A	50	25A	10	11	3
133-134	111D	98D	52C	29A	32A	51A	25	11A	12	3
135-136	113D	100C	53C	30B	33B	52A	26A	11	13A	4
137-138	118E	105D	55C	32B	35B	54A	27A	12A	14A	5
— Maximum Result For Mk. 40 Weaponry —										
139-140	124E	110D	57D	34B	37B	56A	28A	13B	15A	6
141-142	136E	120E	60C	37B	39C	58A	30B	15A	16A	7
143-144	154E	135E	65D	41C	43B	62C	33A	18A	17A	8
145-146	179E	155E	75D	49C	50C	68B	37A	22A	18B	9A
147-148	230E	200E	95E	70D	65C	80C	44B	30B	19B	10A
149-150	300E	255E	125E	100D	95D	105C	60C	40C	20C	11B
— Maximum Result For Mk. 50 Weaponry —										

19.4 DISRUPTOR CANNON ATTACK TABLE

UM 01-05 = Weapon Failure. Roll 1D10: 1-3 = Temporary Overload (weapon may fire next round);
4-10 = Malfunction (roll for severity)

All Criticals are Pierce.
Special Note: Double the value of Defender's Screens when attacking with Disruptor Cannons.

Result	21	22	23	24	25	26	27	28	29	30
61-62	3	1	8	5	7	8	6	0	0	12
63-64	3	1	8	6	7	8	6	1	0	12
65-66	3	1	9	6	7	9	6	1	0	13
67-68	3	2	9	6	8	9	7	1	0	13
69-70	3	2	9	7	8	9	7	1	0	14
71-72	3	2	10	7	8	10	7	1	0	14
73-74	3	2	10	7	9	10	8	0	0	15
75-76	4	2	10	8	9	10	8	1	0	15
77-78	4	2	11	8	9	11	8	1	0	16
79-80	4	2	11	8	10	11	9	2	0	16
81-82	4	2	11	8	10	11	9	2	0	16
83-84	4	2	12	9	10	12	9	2	0	17
85-86	4	2	12	9	11	12	10	2	0	18
87-88	4	2	12	10	11	12	10	2	0	18
89-90	5	2	13	10	11	13	10	3	0	19
91-92	5A	3	13	10	12	13	11	3	0	19
93-94	5A	3	13A	11	12	13	11	3	0	20
95-96	5A	3	14A	11	12	14	11	4	0	20A
97-98	6A	3	14A	11A	13	14	12	4	0	21A
99-100	6B	3	14A	12A	13A	14	12	4	1	21A
101-102	6B	3A	15B	12A	13A	15A	12	5	1	22A
					Maximum Result For Mk. 10 Weaponry					
103-104	7B	3A	15B	12A	14A	15A	13	5	1	23A
105-106	7B	3A	16B	13A	14A	16A	13	6	2	24A
107-108	7B	4A	16B	14A	15A	16A	14	6	2	25A
109-110	7B	4A	17B	15A	16A	17A	15	7	2	26A
111-112	7B	4A	18B	16A	17A	18A	16	7	3	27A
113-114	8B	4A	19B	17B	18A	19A	17	8	3	28A
					Maximum Result For Mk. 20 Weaponry					
115-116	8B	4A	20B	18B	19A	20A	19	8	3	30A
117-118	9B	4A	22B	19B	20A	22A	21	9	4	32A
119-120	10C	5A	24B	21B	22A	24A	23	10	4	34A
121-122	11C	5A	26B	23B	24A	26A	25	11	5	36B
123-124	12C	6A	28B	25B	26A	28A	27	12	5	38B
125-126	12C	6A	30C	27B	28B	30A	29A	13	6	40B
					Maximum Result For Mk. 30 Weaponry					
127-128	15C	7A	32C	29C	32A	32A	31A	14A	6	43B
129-130	17D	8A	35C	31C	33B	35A	33A	15A	7	46B
131-132	19D	9B	38C	34C	36B	38A	36A	17A	7	49C
133-134	21D	10B	41C	37C	39B	41A	38A	19A	8	52C
135-136	24D	12B	44C	40C	42B	44A	41A	21A	8	55C
137-138	27D	14B	47D	43C	45C	47B	44A	23A	9	58C
					Maximum Result For Mk. 40 Weaponry					
139-140	31E	16B	50D	47D	48C	50B	47A	25A	10	62C
141-142	35E	19C	54D	51D	52C	54B	51B	27B	12	67D
143-144	40E	24C	60D	57D	58C	60B	57B	29B	14	73D
145-146	50E	35C	68D	65D	66D	68B	65B	32B	16A	80D
147-148	65E	50D	78E	75D	76D	78C	75B	37B	18A	90D
149-150	85E	75E	90E	87D	88E	90C	85C	45C	20B	110E
					Maximum Result For Mk. 50 Weaponry					

Disruptor Cannon Attack Table

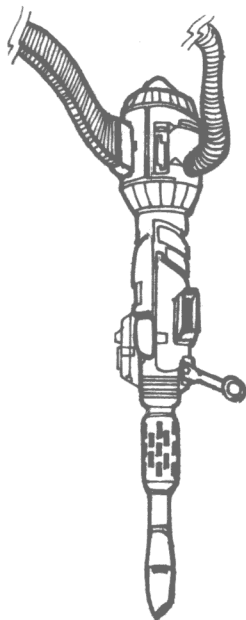| Result	30	29	28	27	26	25	24	23	22	21
01-05	F	F	F	F	F	F	F	F	F	F
06-16	0	0	0	0	0	0	F	F	F	0
17-18	1	0	0	0	0	0	0	0	0	0
19-20	1	1	0	0	1	0	0	1	0	0
21-22	2	1	0	0	1	1	0	1	0	0
23-24	2	1	0	0	1	2	1	1	0	0
25-26	3	2	1	0	2	2	1	2	0	0
27-28	3	2	1	1	2	2	1	2	0	0
29-30	4	3	1	1	3	3	2	3	1	1
31-32	4	3	2	1	3	3	2	3	1	1
33-34	5	4	2	2	4	3	2	3	1	1
35-36	5	4	2	2	4	4	3	4	1	1
37-38	6	5	3	2	5	4	3	4	1	1
39-40	6	5	3	2	5	5	3	4	1	1
41-42	7	6	4	3	5	5	3	5	1	1
43-44	7	6	4	3	6	5	4	5	1	1
45-46	8	7	4	3	6	6	4	5	2	2
47-48	8	7	4	4	6	6	4	6	2	2
49-50	9	8	5	4	7	6	5	6	2	2
51-52	9	8	5	4	7	7	5	6	2	2
53-54	10	9	6	5	7	7	5	7	2	2
55-56	10	9	6	5	8	7	6	7	2	2
57-58	11	10	7	5	8	8	6	7	2	2
59-60	11	11	7	5	8	8	6	8	2	2

UM 01-04 = **Weapon Failure.** Roll 1D10: 1-7 = Temporary Overload (weapon may fire next turn); 8-10 = Malfunction (roll for severity)

All Criticals from **A** to **E** are Pierce.

F = E Pierce and A Blast

G = E Pierce and C Blast
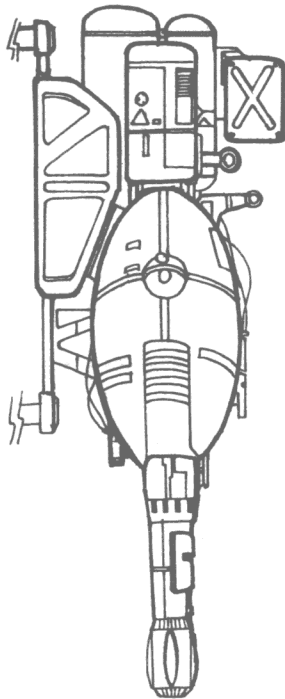
Ion Cannon Attack Table

	30	29	28	27	26	25	24	23	22	21
01-04	F	F	F	F	F	F	F	F	F	F
05-10	0	0	0	0	0	0	0	0	0	0
11-12	0	0	0	0	0	0	0	0	1	1
13-14	0	0	0	0	0	0	0	1	1	2
15-16	0	0	0	0	0	0	0	1	1	2
17-18	0	0	0	0	0	0	0	1	2	2
19-20	0	0	0	0	0	1	0	1	2	3
21-22	0	0	0	1	0	1	1	1	3	4
23-24	0	0	0	1	0	1	1	2	4	5
25-26	0	0	0	2	0	2	1	2	5	6
27-28	0	0	0	2	0	2	1	2	6	7
29-30	0	0	0	2	1	3	1	2	7	8
31-32	0	0	0	3	1	3	1	3	8	9
33-34	0	0	0	3	2	3	1	3	9	11
35-36	0	0	1	3	3	4	2	3	10	13
37-38	0	0	1	4	3	4	2	4	11	15
39-40	0	0	1	4	4	4	2	5	12	17
41-42	0	0	2	4	5	5	3	6	13	19
43-44	0	0	2	5	6	5	3	7	14	21
45-46	0	0	2	5	7	5	3	8	15	23
47-48	0	0	2	5	8	5	3	9	16	25
49-50	0	0	2	6	9	6	4	10	17	27
51-52	0	0	2	6	10	6	4	11	18	29
53-54	0	0	2	6	11	6	4	12	19	31
55-56	0	0	3	6	12	6	5	13	20	33A
57-58	0	0	3	7	13	7	5	14	22	35A
59-60	0	0	3	7	14	7	5	15	24	37A

	21	22	23	24	25	26	27	28	29	30
61-62	39A	26	16	6	7	15	7	3	0	0
63-64	41A	28	17	6	8	16	8	3	0	0
65-66	43A	30	18	6	8	17	8	3	0	0
67-68	45A	32A	19	7	9	18	9	3	0	0
69-70	47A	34A	20	7	9	19	9	3	0	0
71-72	49A	36A	21	7	10	20	10	4	0	0
73-74	51A	38A	22	8	10	21	10	4	0	0
75-76	53A	40A	23	8	11	22	11	4	0	0
77-78	55B	42A	24A	8	11	23	11	4	0	0
79-80	57B	44A	25A	9	12	24	12	4	0	0
81-82	59B	46A	26A	9A	12	25	12	4	0	0
83-84	61B	48A	27A	10A	13	26	13	4	0	0
85-86	63B	50A	28A	10A	13	27	13	4	0	0
87-88	65B	52B	29A	11A	14	28	14	5	0	0
89-90	67C	54B	30A	11A	14	29	14	5	1	0
91-92	69C	56B	31A	12A	15A	30	15	5	1	0
93-94	71C	58B	32A	12A	15A	31	15	5	1	0
95-96	73C	60B	33A	13A	16A	32	16	5	1	0
97-98	75C	62B	34A	13A	16A	33	16	5	2	0
99-100	77C	64B	35A	14A	17A	34	17	5	2	0
101-102	79C	66B	36B	14A	17A	35	17	6	2	1
Maximum Result For Mk. 10 Weaponry										
103-104	81C	68B	37B	15A	18A	36	18	6	3	1
105-106	83C	70B	38B	15A	18A	37	18	6	3	1
107-108	85C	72B	39B	16A	19A	38	19	6	3	1
109-110	87C	74B	40B	17A	20A	39	19	6	4	1
111-112	89C	76B	41B	18A	21A	40	20	7	4	1
113-114	91C	78B	42B	19A	22A	41	20	7	4	1
Maximum Result For Mk. 20 Weaponry										
115-116	93C	80B	43B	23A	17A	42	21	7	5	1
117-118	95C	82B	44B	24A	18A	43	21	7	5	1
119-120	97C	84B	45B	25A	19A	44	22	8	6	1
121-122	99C	86B	46B	26A	20A	45	22	8	6	1
123-124	101C	88B	47B	27A	21A	46	23	8	7	1
125-126	103D	90B	48B	28A	22A	47	23	9	8A	2
Maximum Result For Mk. 30 Weaponry										
127-128	105D	92C	49B	26B	29A	48	24	9	9A	2
129-130	107D	94C	50B	27B	30A	49	24	10	10A	2
131-132	109D	96C	51B	28B	31A	50	25	10	11A	3
133-134	111D	98C	52C	29B	32A	51A	25	11	12B	3
135-136	113D	100C	53C	30B	33B	52A	26A	11	13B	4
137-138	118E	105D	55C	32B	35B	54A	27A	12A	14B	5
Maximum Result For Mk. 40 Weaponry										
139-140	124E	110D	57D	34B	37B	56A	28A	13A	15B	6
141-142	136E	120E	60D	37C	39C	58A	30A	15A	16B	7
143-144	154F	135E	65D	41C	43C	62B	33A	18A	17C	8
145-146	179F	155F	75E	49D	50C	68B	37B	22A	18C	9
147-148	230G	200F	95F	70E	70C	80C	44B	30B	19C	10
149-150	300G	255G	125F	100F	95D	105C	60C	40C	20C	11A
Maximum Result For Mk. 50 Weaponry										

19.6 PLASMA CANNON ATTACK TABLE

UM 01-09 = Weapon Failure. Roll 1D10: 1-6=Temporary Overload (weapon may fire next turn); 7-10=Malfunction (roll for severity).

All Criticals are Blast.

F = E and A Criticals G = E and C Criticals

Plasma Cannon Attack Table (continued)

Roll	21	22	23	24	25	26	27	28	29	30
61-62	78A	52	32	12	15	30	15	6	0	0
63-64	82A	56	34	12	16	32	16	6	0	0
65-66	86A	60	36	13	17	34	17	6	0	0
67-68	90A	64A	38	14	18	36	18	7	0	0
69-70	94A	68A	40	14	19	38	19	7	0	0
71-72	98A	72A	42	15	20	40	20	7	0	0
73-74	102A	76A	44	16	21	42	21	7	0	0
75-76	106A	80A	46	16	22	44	22	8	0	0
77-78	110B	84A	48A	17	23	46	23	8	0	0
79-80	114B	88A	50A	18	24	48	24	8	0	0
81-82	118B	92A	52A	19A	25	50	25	8	0	0
83-84	122B	96A	54A	20A	26	52	26	9	0	0
85-86	126B	100A	56A	21A	27	54	27	9	2	0
87-88	130B	104B	58A	22A	28	56	28	9	2	0
89-90	134C	108B	60A	23A	29A	58	29	9	2	0
91-92	138C	112B	62A	24A	30A	60	30	10	1	0
93-94	142C	116B	64A	25A	31A	62	31	10	1	0
95-96	146C	120B	66A	26A	32A	64	32	10	2	0
97-98	150C	124B	68A	27A	33A	66	33	10	2	0
99-100	154C	128B	70A	28A	34A	68	34	11	2	1
101-102	158C	132B	72B	29A	35A	70	35	11	2	1

Maximum Result For Mk. 10 Weaponry

Roll	21	22	23	24	25	26	27	28	29	30
103-104	162C	136B	74B	30A	36A	72	36	11	3	1
105-106	166C	140B	76B	31A	37A	74	37	12	3	1
107-108	170C	144B	78B	32A	38A	76	38	12	3	1
109-110	174C	148B	80B	34A	40A	78	39	13	4	1
111-112	178C	152B	82B	36A	42A	80	40	13	4	1
113-114	182C	156B	84B	38B	44A	82	41	14	4	1

Maximum Result For Mk. 20 Weaponry

Roll	21	22	23	24	25	26	27	28	29	30
115-116	186C	160B	86B	40B	46A	84	42	14	5	1
117-118	190C	164B	88B	42B	48A	86	43	15	5	1
119-120	194C	168B	90B	44B	50A	88	44	15	6	1
121-122	198C	172B	92B	46B	52A	90	45	16	6	1
123-124	202C	176B	94B	48B	54A	92	46	16	7	1
125-126	206D	180B	96B	50B	56A	94	47	17	8A	2

Maximum Result For Mk. 30 Weaponry

Roll	21	22	23	24	25	26	27	28	29	30
127-128	210D	184B	98B	52B	58A	96	48	18	9A	2
129-130	214D	188C	100B	54B	60A	98	49	19	10A	2
131-132	218D	192C	102B	56B	62A	100	50	20	11A	3
133-134	222D	196C	104C	58B	64A	102A	51	21	12B	3
135-136	226D	200C	106C	60B	66B	104A	52A	22	13B	4
137-138	236E	210D	110C	64B	70B	108A	54A	24A	14B	5A

Maximum Result For Mk. 40 Weaponry

Roll	21	22	23	24	25	26	27	28	29	30
139-140	248E	220D	114D	68B	74B	112A	56A	26A	15B	6A
141-142	272E	240E	120D	74C	78B	116A	60A	30A	16B	7A
143-144	308F	270E	130D	82C	86C	124B	66A	36A	17C	8A
145-146	358F	310F	150E	98D	100C	136B	74B	44A	18C	9B
147-148	460G	400F	200E	140D	130C	160C	88C	60B	19C	10C
149-150	600G	510G	250F	200E	190D	210D	120D	80C	20D	11D

Maximum Result For Mk. 50 Weaponry

Plasma Cannon Attack Table

Roll	30	29	28	27	26	25	24	23	22	21
01-09	F	F	F	F	F	F	F	F	F	F
10-20	0	0	0	0	0	0	0	0	0	0
21-22	0	0	0	0	0	0	0	2	2	4
23-24	0	0	0	0	0	0	0	3	5	6
25-26	0	0	0	0	0	0	0	4	7	8
27-28	0	0	0	0	0	0	0	4	9	10
29-30	0	0	0	0	0	0	0	5	12	14
31-32	0	0	0	0	0	0	0	5	14	18
33-34	0	0	0	0	2	0	0	6	16	22
35-36	0	0	0	0	5	0	2	7	18	26
37-38	0	0	0	2	8	2	3	8	20	30
39-40	0	0	0	2	8	2	4	10	22	34
41-42	0	0	2	4	10	4	5	12	24	38
43-44	0	0	4	6	12	6	6	14	26	42
45-46	0	0	4	7	14	7	6	16	28	46
47-48	0	0	4	8	16	8	7	18	30	50
49-50	0	0	4	9	18	9	8	20	32	54
51-52	0	0	5	10	20	10	8	22	34	58
53-54	0	0	5	11	22	11	9	24	36	62
55-56	0	0	5	12	24	12	10	26	40	66A
57-58	0	0	5	13	26	13	10	28	44	70A
59-60	0	0	6	14	28	14	11	30	48	74A

19.7 EXPLOSIVE WARHEAD ATTACK TABLE

UM 01-02 = No Effect. Warhead is a dud.

All Criticals are Blast

Explosive Warhead Attack Table

Roll	30	29	28	27	26	25	24	23	22	21
01-02	F	F	F	F	F	F	F	F	F	F
03-08	0	0	0	0	0	F	F	F	F	0
09-10	0	0	0	0	0	F	F	0	0	1
11-12	0	0	0	0	0	0	0	0	1	1
13-14	0	0	0	0	0	0	0	0	1	1
15-16	0	0	0	0	0	0	0	0	1	1
17-18	0	0	0	0	0	0	0	1	1	1
19-20	0	0	0	0	0	0	1	1	1	1
21-22	0	0	0	0	0	0	1	1	1	1
23-24	0	0	0	0	0	0	1	1	1	1
25-26	0	0	0	0	0	0	1	1	1	1
27-28	0	0	0	0	0	0	1	1	1	2
29-30	0	0	0	0	0	0	1	1	1	2
31-32	0	0	0	0	1	0	1	1	1	2
33-34	0	0	0	0	1	0	1	1	1	2
35-36	0	0	0	0	1	0	1	1	1	2
37-38	0	0	0	0	1	0	1	1	1	2
39-40	0	0	0	0	1	0	1	1	1	2
41-42	0	0	0	0	1	0	1	1	1	3
43-44	0	0	0	0	1	0	1	1	1	3
45-46	0	0	0	0	1	0	1	1	2	3A
47-48	0	0	0	0	1	1	1	1	2	3A
49-50	0	0	0	0	1	1	1	1	2	4A
51-52	0	0	0	0	1	1	1	1	2	4A
53-54	0	0	0	0	1	1	1	1	2	5A
55-56	0	0	0	0	1	1	1	2	2A	5A
57-58	0	0	0	0	1	1	1	2	2A	6A
59-60	0	0	0	0	1	1	1	2	2A	7A
61-62	0	0	0	0	1	1	1	2	3A	8A
63-64	0	0	0	1	1	1	1	2A	3A	9A
65-66	0	0	0	1	1	1	1	2A	4A	10B
67-68	0	1	0	1	1	1	1	3A	4A	11B
69-70	1	1	0	1	1	1	2	3A	5A	12B
71-72	0	1	0	2	2	1	2A	4A	5A	13B
73-74	0	1	0	3	2	1	3A	4A	6A	14B
75-76	0	1	0	3	3	1	3A	5A	6B	15B
77-78	0	1	1	3	3	2	4A	5A	7B	16B
79-80	0	1	1	4	4	2	4A	6A	8B	18B
81-82	1	1	1	2	3	2A	5A	7A	9B	19B
83-84	1	1	1	2	5	2A	6A	8B	10B	21B
85-86	1	1	1	3	6	3A	7A	9B	11B	22C
87-88	1	1	1	3	7	3A	8A	11B	13B	24C
89-90	1	1	1	4	8	4A	9A	12B	14B	26C
91-92	1	1	1	4	9	5A	10A	14B	16B	28C
93-94	1	1	1	5	10	6A	12A	15B	17B	30C
95-96	1	1	1	5	12	7A	13A	17B	19B	32C
97-98	1	1	2	6	14A	8A	15A	19B	21B	34C
99-100	1	1	2	7	16A	9A	17A	21B	23B	36D
101-102	2	2	3	8A	18A	10A	19A	23B	25C	38D
Maximum Result For Mk.10 Weaponry										
103-104	0	2	3	9A	20A	11A	21A	25B	27C	40D
105-106	0	2	4	10A	22A	12A	23A	27B	29C	42D
107-108	0	2	4	11A	24A	13A	25B	29B	31C	44D
109-110	1	2	5	12A	26A	14B	27B	31B	33C	46D
111-112	1	3	5A	13A	28A	15B	29B	33B	35C	48D
113-114	1	3A	6A	14A	30A	16B	31B	35B	37C	50D
Maximum Result For Mk.20 Weaponry										
115-116	0	3A	6A	15A	32A	17B	33B	37B	39C	52D
117-118	0	3A	7A	16A	34A	18B	35B	39B	41C	54D
119-120	0	4A	7A	17A	36A	19B	37B	41B	43C	56D
121-122	0	4A	8A	18A	38A	20B	39B	43B	45C	58D
123-124	0	4A	8A	19A	40A	21B	41B	45B	47C	60E
125-126	1	5A	9A	20A	42A	22B	43B	47C	49D	62E
Maximum Result For Mk.30 Weaponry										
127-128	1	5A	9A	21A	44A	23C	45B	49C	51D	65E
129-130	1	6A	10A	22A	46A	25C	47B	52C	54D	68E
131-132	1	7A	10A	23A	48A	27C	49B	55C	57D	71E
133-134	2	8A	11A	24A	50A	29C	51B	59C	61D	75E
135-136	2A	9A	11A	26A	52B	32C	54B	63C	66D	82E
137-138	2A	10A	12A	29B	55B	36C	58C	68D	72E	92E
Maximum Result For Mk.40 Weaponry										
139-140	2A	11B	13B	33B	60C	41C	63C	75D	80E	115E
141-142	3A	12B	15B	38B	70C	50C	70C	85D	90E	145E
143-144	5A	13B	20B	47C	90C	70C	85C	105D	115E	200E
145-146	7B	15B	30B	65C	130D	110C	115C	150E	170E	300E
147-148	12B	20C	50C	80D	170D	160E	150D	200E	270E	400E
149-150	20C	30C	70D	100E	220D	210E	200E	300E	400E	500E
Maximum Result For Mk.50 Weaponry										

19.8 NUCLEAR WARHEAD ATTACK TABLE

UM 01-02 = No Effect. Warhead is a dud.

All Criticals are Blast.

F = E and A Criticals	**G** = E and B Criticals
H = E and C Criticals	**I** = E and D Criticals

Special Notes on the use of this table:

1) The OB used for attack resolution is selected from one of the following applicable modifiers:
   * Mk# +100 if target is within the 1st Blast Radius.
   * Mk# +50 if target is within the 2nd Blast Radius.
   * Mk# +25 if target is within the 3rd Blast Radius.
   * Mk# +10 if target is within the 4th Blast Radius.
   * Mk# +0 if target is within the 5th Blast Radius.
2) The DB used for attack resolution is the sum of the target's Armor Quality bonus, Armor Belt bonus and Screen value.
3) ELIM results in the outright destruction of the target.

Nuclear Warhead Attack Table

Roll	30	29	28	27	26	25	24	23	22	21
01-02	F	F	F	F	F	F	F	F	F	F
03-08	0	0	0	0	0	0	0	0	0	0
09-10	0	0	0	0	0	0	0	0	0	1
11-12	0	0	0	0	0	0	0	0	1	2
13-14	0	0	0	0	0	0	0	0	1	2
15-16	0	0	0	0	0	0	0	1	1	2
17-18	0	0	0	0	0	0	0	1	2	2
19-20	0	0	0	0	0	0	0	1	2	2
21-22	0	0	0	0	0	0	0	1	2	2
23-24	0	0	0	0	0	0	0	1	2	2
25-26	0	0	0	0	0	0	0	1	2	2
27-28	0	0	0	0	0	0	0	1	2	2
29-30	0	0	0	0	0	0	1	1	2	2
31-32	0	0	0	0	0	0	1	1	2	2
33-34	0	0	0	0	0	0	1	1	2	2
35-36	0	0	0	0	0	0	1	1	2	2
37-38	0	0	0	0	0	0	1	2	2	2
39-40	0	0	0	0	1	0	1	2	2	2
41-42	0	0	0	0	1	0	1	2	2	3
43-44	0	0	0	0	1	0	1	2	2	3
45-46	0	0	0	0	1	0	0	2	2	3
47-48	0	0	0	0	1	1	1	2	2	3
49-50	0	0	0	0	1	1	1	2	2	3
51-52	0	0	0	0	0	1	1	2	2	4
53-54	0	0	0	0	1	1	1	2	2	4
55-56	0	0	0	0	0	1	1	2	2	5
57-58	0	0	0	0	0	0	1	2	2	6
59-60	0	0	0	0	1	1	1	2	2	7

Roll	30	29	28	27	26	25	24	23	22	21
61-62	0	0	0	0	1	1	1	2	3	8
63-64	0	0	0	1	1	1	1	2	3	9A
65-66	0	0	0	1	1	1	1	2	4	10A
67-68	0	1	1	1	1	1	1	3	4	11A
69-70	0	1	0	1	1	1	2	3	5	12A
71-72	0	1	0	1	2	1	2	4	5A	13A
73-74	0	1	0	1	2	1	3	4	6A	14A
75-76	0	1	0	0	3	1	3	5	6A	15A
77-78	0	1	1	1	3	1	4	5	7A	16A
79-80	0	1	0	2	4	2	4	6	8A	18A
81-82	0	1	2	2	3	2	5	7	9A	19A
83-84	0	1	2	2	5	2	6	8	10A	21A
85-86	0	1	1	3	6	3	6	9	11A	22A
87-88	0	1	1	3	7	3	7	11	13A	24A
89-90	0	1	1	4	8	4	9	12	14A	26A
91-92	0	1	1	4	9	5	10	14	16A	28A
93-94	0	1	1	5	10	6	12	15	17A	30A
95-96	0	1	1	5	12	7	13	17	19A	32A
97-98	0	1	2	6	14	8	15	19	21A	34A
99-100	0	1	2	7	16	9A	17	21A	23A	36A
101-102	0	2	3	8A	18A	10A	19A	23A	25A	38A
Maximum Result For 5th Blast Radius										
103-104	0	2	3	9A	20A	11A	21A	25A	29A	42B
105-106	0	2	4	10A	23A	12A	23A	27A	33A	46B
107-108	0	2	4	11A	26A	13A	25A	29A	37B	50B
109-110	0	2	5	12A	30A	14A	27A	35A	41B	54C
111-112	0	3	5A	13A	34A	15A	29A	39A	45B	58C
113-114	0	3A	6A	14A	38A	16A	31A	43A	49C	62C
Maximum Result For 4th Blast Radius										
115-116	0	3A	7A	15A	42A	18A	35A	47B	57C	70D
117-118	1	3A	8A	16A	48A	20B	39B	53B	65C	78D
119-120	1	4A	9A	17A	54A	22B	44B	59C	73D	86D
121-122	1	4A	10A	19A	62B	22C	50C	67C	81D	94E
123-124	1	5A	11A	21A	70B	26C	57C	75D	89D	102E
125-126	2	6A	13B	25A	78B	32C	65D	83D	97E	110F
Maximum Result For 3rd Blast Radius										
127-128	2	7A	15B	33B	95C	40D	75D	110E	120E	130F
129-130	2	9A	19C	40B	110C	60D	95E	120E	140F	150G
131-132	3	13A	27C	60C	140D	80E	135E	160F	260G	300G
133-134	6	21A	40D	80C	200D	120E	215F	240G	425H	450H
135-136	8A	37B	60D	120D	320D	200E	375G	400G	750H	800I
137-138	12A	70C	90E	200E	500E	300G	550H	700I	ELIM	ELIM
Maximum Result For 2nd Blast Radius										
139-140	24A	140D	150E	300F	700G	500H	ELIM	ELIM	ELIM	ELIM
141-142	48A	250E	270F	500G	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
143-144	96B	500F	400G	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
145-146	192C	750G	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
147-148	385D	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
149-150	770E	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
Maximum Result For 1st Blast Radius										

19.9 MATTER/ANTIMATTER WARHEAD

UM 01-02 = No Effect. Warhead is a dud.

All Criticals are Blast.
F = E and B Criticals   **G** = E and C Criticals
H = E and D Criticals   **I** = E and E Criticals

Special Notes on the use of this table:
1) The OB used for attack resolution is selected from one of the appropriate following modifiers:
* Mk# +100 if target is within the 1st Blast Radius.
* Mk# +50 if target is within the 2nd Blast Radius.
* Mk# +25 if target is within the 3rd Blast Radius.
* Mk# +10 if target is within the 4th Blast Radius.
* Mk# +0 if target is within the 5th Blast Radius.
2) The DB used for attack resolution is the sum of the target's Armor Quality bonus, Armor Belt bonus and Screen value.
3) ELIM results in the outright destruction of the target.

Matter/Antimatter Warhead Attack Table

Roll	21	22	23	24	25	26	27	28	29	30
61-62	12	4	3	1	1	1	0	0	0	0
63-64	13A	5	3	1	1	1	1	0	0	0
65-66	15A	6	3	2	1	1	1	0	0	0
67-68	16A	7	4	2	1	1	1	0	1	0
69-70	18A	8	4	3	2	2	1	1	1	0
71-72	19A	9A	5	3	3	1	1	0	1	0
73-74	21A	11A	6	4	3	1	1	0	1	0
75-76	24B	13A	7	4	4	1	1	0	1	0
77-78	27B	14A	8	5	4	2	1	1	1	0
79-80	31B	16A	9	6	5	2	2	1	1	0
81-82	35B	18B	10	7	6	2	2	1	1	0
83-84	39B	20B	12A	9	7	3	2	1	1	0
85-86	43B	22B	14A	11	8	4	3	1	1	0
87-88	47B	25B	17A	13	10	6	3	1	1	0
89-90	51B	28B	20A	15	12	8	4	1	1	0
91-92	55B	31B	24A	18A	15	10	5	1	1	0
93-94	60B	34B	28A	21A	18	12	6	1	1	0
95-96	66B	38B	32A	25A	22	14A	7	1	1	0
97-98	73B	43B	38A	29A	26	16A	9	2	1	0
99-100	81B	49B	45B	33A	30	18A	11	2	1	0
101-102	90B	56B	53B	37B	34A	20B	14A	3	2	0
Maximum Result For 5th Blast Radius										
103-104	100C	65B	62B	42B	39A	23B	18A	3	2	0
105-106	120C	85B	74B	53B	45A	27B	23A	4	2	0
107-108	150C	115C	95B	70B	53B	32B	29A	5	3	0
109-110	190D	150C	125B	95B	65B	38B	36A	7	4	0
111-112	240D	195C	160B	125B	85B	45B	44A	9A	5A	0
113-114	310D	255D	200B	160B	120B	53B	53A	12A	6A	0
Maximum Result For 4th Blast Radius										
115-116	400E	320D	245C	200B	170B	65B	63A	15B	7A	0
117-118	500E	400D	300C	250C	230B	80C	75A	19B	8B	1
119-120	600F	500E	400D	300C	300B	100C	90B	24B	10B	1
121-122	700G	600F	500E	400C	400C	200D	120B	30B	13B	1
123-124	800H	700G	600F	500E	500C	300D	160B	40B	16B	1
125-126	900I	800H	700G	600F	600C	400E	210B	75C	20B	2
Maximum Result For 3rd Blast Radius										
127-128	ELIM	900I	800H	700G	700C	500F	300C	130C	25B	2
129-130	ELIM	ELIM	900I	800H	800G	600G	400D	200D	32B	3
131-132	ELIM	ELIM	ELIM	900I	900H	700H	500E	300D	40B	4A
133-134	ELIM	ELIM	ELIM	ELIM	ELIM	800I	600F	400E	50B	6A
135-136	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	700G	500F	70C	9B
137-138	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	800H	600G	110D	13B
Maximum Result For 2nd Blast Radius										
139-140	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	200E	25B
141-142	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	300E	50B
143-144	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	600F	150C
145-146	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	300D
147-148	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	450E
149-150	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM	ELIM
Maximum Result For 1st Blast Radius										

Roll	30	29	28	27	26	25	24	23	22	21
01-02	F	F	F	F	F	F	F	F	F	F
03-08	0	0	0	0	0	0	0	0	0	0
09-10	0	0	0	0	0	0	0	0	1	1
11-12	0	0	0	0	0	0	0	0	1	2
13-14	0	0	0	0	0	0	0	0	1	2
15-16	0	0	0	0	0	0	0	1	1	2
17-18	0	0	0	0	0	0	0	1	2	2
19-20	0	0	0	0	0	0	0	1	2	2
21-22	0	0	0	0	0	0	0	1	2	2
23-24	0	0	0	0	0	0	0	1	2	2
25-26	0	0	0	0	0	0	0	1	2	2
27-28	0	0	0	0	0	0	0	1	2	2
29-30	0	0	0	0	0	0	1	1	2	2
31-32	0	0	0	0	0	0	1	1	2	2
33-34	0	0	0	0	0	0	1	1	2	3
35-36	0	0	0	0	0	0	1	1	2	3
37-38	0	0	0	0	0	1	1	2	3	4
39-40	0	0	0	0	0	1	1	2	3	4
41-42	0	0	0	0	0	1	1	2	3	4
43-44	0	0	0	0	0	1	1	2	3	4
45-46	0	0	0	0	1	1	1	2	3	4
47-48	0	0	0	0	1	1	1	2	3	4
49-50	0	0	0	0	1	1	2	3	3	4
51-52	0	0	0	0	1	1	1	3	3	5
53-54	0	0	0	0	1	1	1	3	3	6
55-56	0	0	0	0	1	1	1	3	3	7
57-58	0	0	0	0	1	1	1	3	3	9
59-60	0	0	0	0	1	1	1	3	3	10

	A	B	C	D	E
01-05	Wild shot fails to score extra damage. Targeting bungle prevents your weapon from firing again next Round. Tough luck.	A new targeting system would be in order here. No extra damage.	Zip.	Poor shot. Foe may make no Maneuvers next Round. +1 Hit.	Foe has The Luck. +2 Hits.
06-10	Target is elusive.	Light damage to foe's Landing Gear will penalize landing attempts by -15. -5 to Screens.	Moderate damage causes all of foe's landing and docking attempts to be performed at -20. One Payload Pallet and load destroyed. Pretty weak.	Foe takes Moderate damage to Landing Gear. Craft may not make Planetfall. Severe damage to power conduit prevents one Energy Weapon Mount from discharging. -5 to Screens. +5 Hits.	Foe's craft may not land or dock unaided due to Very Severe damage to Landing Gear and Attitude Thrusters. Power surge knocks out one Energy Weapon Mount. +10 Hits.
11-15	Weak shot, but foe may make no Maneuvers next Round.	Random energy dissipation delivers Moderate damage to foe's Sublight Drive: Maneuver Thrusters reduced by 2.	Foe's Microfreq Rig takes Moderate damage. Power flux prevents foe's Energy Weapons from firing for 1-5 Rounds. -5 to Screens. +1 Hit.	Energy discharge fries Comm arrays. All of foe's Communications systems destroyed. Additional Severe damage reduces foe's Maneuvering Trust by 2. -10 to Screens. +10 Hits.	All of foe's Communications systems knocked out. Severe damage to Computer causes additional -15 to Tactics Program. One Turret Weapon Mount destroyed. -5 to Screens. +20 Hits.
16-20	Light damage reduces foe's Maneuvering Thrust by 1. If foe has no Screens, his Predict Program will be at -20 next Round.	Over-heating knocks out one of foe's HUD units. One Payload Pallet and load destroyed. -5 to Screens. +1 Hit.	Cruel rays cause Severe damage to foe's Computer: -10 to Predict and Evade Programs. If foe has Screens, one HUD unit is knocked out. Otherwise, all HUD's are knocked out. +2 Hits.	Pulsed burst wreaks havoc on foe's craft. Sensors knocked out. Targeting, Predict and Evade Programs are useless due to Moderate Computer damage. -5 to Screens. +20 Hits.	Foe's Tactics, Predict, and Evade Programs useless. Craft's Maneuvering Thrust reduced by 10 due to Severe damage. -10 to Screens. +40 Hits.
21-35	Light damage to two systems: foe's EW reduced by 5, and Maneuvering Thrust reduced by 1.	Light damage reduces foe's EW by 10. He may not jam incoming Missiles and Torps for the next 1-5 Rounds. Additional Light damage reduces foe's Maneuvering Thrust by 1. +1 Hit.	Arcing energy beam sends foe Out of Control. Also, Severe damage to foe's EW system, reducing it by 40. Light damage reduces Maneuvering Thrust by 2. +3 Hits.	Screens splatter your vengeful strike. Foe may not fire next Round. If foe has Armor Belt, his EW is knocked out. Otherwise, EW and Screens are knocked out. +35 Hits.	Unbearable energy surge knocks out foe's EW. Also, if foe has no Screens, Computer takes Moderate damage causing Predict and Evade Programs to operate at -30 each. +70 Hits.
36-45	If foe has no Screens, his weapon targeting systems short out. He may not discharge any weapons for 1 Round. In any event, one Payload Pallet and load are destroyed. -5 to Screens.	Feeble attempt to cleave opponent results in one of foe's Weapon Mounts to be inoperative for 1-5 Rounds. -5 to Screens. +1 Hit.	Energy surge. Foe may fire no Missiles or Torpedoes for 1-5 Rounds. One Energy Weapon Mount is knocked out. -10 to Screens. +4 Hits.	Piercing strike sends foe Out of Control and takes its toll on craft's weapons. 1-5 Weapon Mounts knocked out. Severe damage reduces foe's Maneuvering Thrust by 1-5. +50 Hits.	Blistering attacks knock out 1-10 Weapon Mounts and all Payload Pallets. If foe has no Armor Belt, Sublight Drive unit knocked out. -25 to Screens. +100 Hits.
46-50	Your soft strike gives foe's computer a Routine Malfunction: -15 to Evade Program. Also, power surge prevents foe's Energy Weapons from being discharged next Round.	Foe's automatic Damage Control capabilities knocked out. One Energy Weapon Mount knocked out. Light damage reduces foe's Maneuvering Thrust by 2. +2 Hits.	Hard strike affects computer processing; Tactics Program inoperative for 2-20 Rounds. If foe has no Screens, secondary Moderate damage reduces Maneuvering Thrust by 1-5. +5 Hits.	A portion of foe's Computer takes Very Severe damage: Tactics, Predict and Evade Programs are each at -(1-100). -10 to Screens. One Turret Weapon Mount knocked out. +70 Hits.	Foe's Computer knocked out. No Program bonuses may be used, and no other Programs may be run in the Processor. Craft is drifting. -50 to Screens. +150 Hits.
51-55	Deflected impact jars Maneuvering Thrust unit; Maneuvering Thrust reduced by 2 due to Moderate damage. If foe has no Armor Belt, -5 to Screens. +1 Hit.	Foe's Screens absorb strike, but are at -20 for 1-10 Rounds. Moderate damage reduces MTs by 2. +2 Hits.	Brutal strike shorts out foe's EW. Craft has no EW for 1-10 Rounds. Also, if foe has no Armor Belt, one Auxiliary System is destroyed. +7 Hits.	Screen Generator knocked out by vaporizing blast, foe has no Screens. If foe has no Armor Belt, all Crewmembers take an "A" Heat critical due to secondary energy dissipation. +90 Hits.	Tumultuous blast knocks out Screens. Crewmembers stunned for 2 Rounds. Very Severe damage reduces Maneuvering Thrust by 1-10. All Energy Weapons knocked out. +200 Hits.
56-60	Foe's Life Support system takes Light damage from your concentrated attack. Crew will die in 1 hour unless damage is repaired. Moderate damage reduces MTs by 2. +1 Hit.	Lancing shot delivers Moderate damage to Life Support system. Crew will die in 1 hour unless damage is repaired. A short circuit reduces Maneuvering Thrust by 1-5 for 2 Rounds. +2 Hits.	Penetrating ray delivers Severe damage to Life Support system. Crew will die in 30 minutes unless damage repaired. -15 to Screens. +10 Hits.	Overbearing attack gives foe's Life Support system Very Severe damage: crew will die in 5 minutes. Each crewmember takes a "B" Heat critical. -10 to Screens. +120 Hits.	Rude shot causes toxin to flow through Life Support system. Crewmembers will die in 1-5 Rounds unless they eject now. -30 to Screens. Craft sent Out of Control. +250 Hits.
61-65	Foe's automatic Damage Control capability lost for 10 Rounds due to your determined blow. Additional Light damage reduces foe's Maneuvering Thust by 1. -5 to Screens. +1 Hit.	Damage Control system takes Moderate damage from your disrupting shot. No Energy Weapons may be fired next Round. -10 to Screens. +3 Hits.	Damage Control capacity lost due to your energy lance. If foe has no Armor Belt, one Energy Weapon Mount knocked out, and -30 to Screens. +13 Hits.	Demolishing burst knocks out foe's Damage Control capability. One of foe's Turret Weapon Mounts is destroyed. Also, Severe damage knocks out MSA capability. +150 Hits.	Shocking energy blast careens through craft. All systems malfunction. Foe drifts helplessly. +300 Hits.

	A	B	C	D	E
66	Searing strike delivers +50 Hits if foe has Armor Belt. Otherwise, foe takes +100 Hits.	Intense assault burns through screens and riddles foe. If he has an Armor Belt, +100 Hits. Otherwise, he takes +200 Hits.	Concentrated beam, unimpeded by Screens, buckles foe's armor plates. If foe has Armor Belt, +500 Hits. Otherwise, +1000 Hits.	Cruel sizzling bursts tear foe's craft to pieces. Add +5 to your next attack.	Foe's craft split apart by your irresistible blast. No survivors.
67-70	If foe has no Screens, a penetrating energy swath ignites an internal fire. Foe's craft takes 1 Hit/Rnd until flame put out. -10 to Screens in any event.	Heat from your blast triggers interior fire in foe's craft. It takes 2 Hits/Rnd until flames put out. Additional Light damage reduces Maneuvering Thrust by 1-5. Foe is sent Out of Control.	Undissipated heat ignites interior fire. Foe's craft takes 4 Hits/Rnd until flames are extinguished. If foe has no Screens, he takes additional Light damage reducing Maneuvering Thrust by 2.	Concentrated attack proves to be too much for foe's armor. One Auxiliary System destroyed. If foe has Armor Belt, his craft takes 10 Hits/Rnd from internal fire. Otherwise, it is destroyed.	Flames rage through craft's interior, causing it to take 20 Hits/Rnd. All crewmembers take 1 "B" Heat critical per Round until flames are controlled. One Auxiliary System destroyed.
71-75	Secondary concussions stun crew for 1 Round. Moderate damage reduces foe's Maneuvering Thrust by 2. +2 Hits.	Energy discharges deliver an "A" Electricity critical to each crewmember. -10 to Screens. +3 Hits.	Blazing strike stuns crew for 1-10 Rounds. 1 Auxiliary System destroyed. Finishing foe off will be easy. +16 hits.	Rocking strike to armor stuns foe's crew for 10 Rounds. Crewmembers also take a "C" Electricity critical each due to energy discharges. -35 to Screens. +180 Hits.	Secondary concussion causes all crewmembers to take 1 "E" Impact critical. In addition, crew is stunned for 2 Rounds. Craft will fall apart in 1-10 Rounds. -40 to Screens. +350 Hits.
76-80	Crackling strike causes foe's RIF generator to short out for 1-5 Rounds during which foe may not exceed a Maneuvering Thrust of 1 nor engage Maximum Sublight Acceleration or the Translight Drive. +2 Hits.	Foe's RIF generator takes Light damage. Craft may not exceed a Maneuvering Thrust of 1 and may not engage Maximum Sublight Acceleration or the Translight Drive. All crewmembers take an "A" Impact critical. +4 Hits.	Pummeling strikes knock out foe's RIF generator. Craft may not exceed a Maneuvering Thrust of 1 and may not engage Maximum Sublight Acceleration or the Translight Drive. -5 to Screens. +20 Hits.	Slashing energy beams cause Very Severe damage to foe's RIF generator. Barring an Aux RIF, random application of inertia will destroy craft next Round. +220 Hits.	RIF Generator knocked out and any Aux RIF may not be accessed. Craft with any Acquired Momentum will disintegrate. -50 Screens. +500 Hits.
81-85	Scary blast sends foe's craft Out of Control. His Computer takes Moderate damage: -20 to Tactics Program. Additional Moderate damage reduces Maneuvering Thrust by 1. +2 Hits.	Raking shots impede Computer performance. Moderate damage causes Predict, Evade, and Tactics Programs to be reduced by 10 each. -10 to Screens. +5 Hits.	Determined attack sends foe Out of Control. Also, Severe damage to foe's Computer: Tactics, Predict, and Evade Programs are inoperative. -25 to Screens. +25 Hits.	Pyrotechnic explosions knock out a variety of foe's systems. Craft drifts inert for 1-10 Rounds then detonates. +270 Hits.	Funneled energy stream guts foe's craft. It is destroyed.
86-90	Destructive energy causes one Weapon Mount to be inoperative for 1-10 Rounds. -15 to Screens. +3 Hits.	Knock out 1-5 of foe's Payload Pallets. Additional Moderate damage reduces foe's Maneuvering Thrust by 2. -20 to Screens. +6 Hits.	Hot secondary blasts overload all Weapon systems. Weapons may not fire. Runaway capacitors will cause craft to explode in 2-20 Rounds. Tough break. +30 Hits.	Foe's craft reels under your impacting energy bursts. Weapons and Reactor overload. Craft drifts helplessly for 1 Round then explodes. +330 Hits.	Point-blank detonation causes craft to lose structural integrity. Foe's craft is now scrap metal: total collapse.
91-95	Lucky blow delivers Moderate damage to the Sublight Drive, reducing foe's Maneuvering Thrust by 1-10. +3 Hits.	Severe damage to foe's Sublight Drive caused by your sneaky passing shot reduces craft's Maneuvering Thrust by 2-20. You have him now. +7 Hits.	Sublight Drive knocked out. 1 Auxiliary System destroyed. Craft drifts for 1-5 Rounds then explodes. +40 Hits.	Ravaging beams of destruction criss-cross foe. Drive system detonates, eliminating foe's craft. Awesome.	Scorching rays of death fry craft and crew. There is no escape.
96-99	Cruel strike causes Moderate damage to foe's reactor. Crew takes one "C" Radiation Critical per minute. Secondary Light damage reduces foe's Maneuvering Thrust by 2. +4 Hits.	Piercing stream of destruction overloads foe's reactor. Craft will explode in 1-5 Rounds. Get to the Life Pods! +8 Hits.	Ray of destruction burns through Screens, breeches hull, then melts down foe's Reactor. Craft disappears in fireball after drifting 1 Round. +50 Hits.	Hull breached by pinpoint assault. Reactor detonates immediately, destroying craft. Crewmembers perish.	Foe vaporized in a blaze of glory. No survivors.
100	Bulkhead buckles under your pinpoint attack. Foe's craft will explosively decompress in 1-5 Rounds. Great shot. +5 hits. Add +10 to your Gunner's next attack.	Powerful swath of energy rakes hull. Foe's craft suffers structural collapse and is destroyed. Good shot. Add +10 to your Gunner's next attack.	Foe's craft ripped in half by your ravening strikes. It is totally destroyed.	Your artfully directed strikes detonate foe's ordnance and reactor. Craft gutted. No one gets out alive.	Foe's craft passes out of this realm of existence. No trace is left behind.

20.2 BLAST CRITICAL STRIKE TABLE — vs. SMALL Vessels

	A	B	C	D	E
01-05	Blast detonation is off target. No extra damage. Somewhat stunned by the gaffe, you may perform no Maneuvers next Round.	No extra damage.	Blast, though weak, is enough to prevent foe from performing any Maneuvers next Round.	+2 Hits.	+5 Hits. Foe may not discharge Torpedoes next Round. This could have been much worse.
06-10	No extra hits, but any stowed cargo takes Light damage.	If foe has Screens, the concussion stuns foe's crew for one Round. If foe has no Screens, the crew is stunned for 2 Rounds. In any event, one Payload Pallet and load are destroyed.	If foe has no Armor Belt, a rocking blow temporarily disrupts power routing, so craft is sent Out of Control.	Weak attack. You knock out one of foe's Payload Pallets. +10 Hits.	Foe's craft sent Out of Control. +20 Hits.
11-15	Weak blast. If foe has no Screens, one random crewmember takes an "A" Impact critical.	Glancing blow knocks out foe's Tight Beam communication rig.	Glancing strike knocks out all of foe's Communication Rigs. Also, foe may not use/discharge any Payload Pallet loads next Round. +2 Hits.	One of foe's Communication Rigs knocked out. Additionally, foe may make no Maneuvers next Round. +20 Hits.	Blast scrambles foe's targeting capability. Foe may make no Cannon Weapon Mount or Missile Launcher attacks due to Severe Computer damage. +40 Hits.
16-20	Impact causes foe's Sensor display to flicker momentarily. Craft's Sensors at -20 for 5 Rounds. Additional Light damage reduces foe's Maneuvering Thrust by 1.	Concussion knocks out one of foe's HUD units. +2 Hits.	Concussion causes Severe damage to foe's Computer: -5 to Predict Program, and -5 to Evade Program. +4 Hits.	Burst gives all crewmembers a "B" Impact critical. Foe's craft may apply no Maneuver Thrust next Round. +40 Hits.	Intense blast knocks out foe's Sensors. Also,Targeting, Tactics, Predict and Evade Programs useless due to Moderate Computer damage. -5 to Screens. +80 Hits.
21-35	Light damage reduces foe's EW rating by 5. If foe has no Armor Belt, reduce Maneuvering Thrust by 1 due to Light damage.	Foe may not jam incoming Torpedoes for the next Round. +2 Hit.	Energy blast causes Moderate damage to foe's EW system: -10 to EW. Any cargo takes Light damage. +6 Hits.	Armor dissipates your strike. Foe's EW is reduced by 20 due to Severe damage. +70 Hits.	Energy surge reduces foe's EW by 25. Also, each crewmember takes a "C" Impact critical. +140 hits.
36-45	Foe's weapon targeting systems short out. He may not fire any weapons for 1 Round. One random crewmember takes an "A" Electricity critical. -5 to Screens.	Attempt to frag opponent only results in one of foe's Weapon Mounts to be inoperative for 1-2 Rounds. +2 Hit.	Foe may fire no Missiles or Torpedoes for 1-2 Rounds. +8 Hits.	Engulfing blast takes toll on foe's weapons and sends him Out of Control. If foe has Armor Belt, 1-2 Weapon Mounts knocked out. Otherwise, 1-5 are knocked out, and Maneuvering Thrust by 2 due to Light damage. +100 Hits.	Barrage knock's out 1-10 Weapon Mounts, 1-10 Payload Pallets and destroys one Auxiliary System. +200 Hits.
46-50	Soft blow gives foe's computer a Routine Malfunction: -15 to Evade Program. One Turret Weapon Mount may not fire for 1-5 Rounds.	Deflected blast knocks out one Weapon Mount. Any cargo takes Moderate damage. +4 Hits.	Hard blow affects Computer processing. Tactics Program inoperative for 1-10 Rounds. -5 to Evade or Predict Program. +10 Hits.	Rocking strike impeeds Computer performance by delivering Severe damage: Tactics, Predict and Evade Programs are each at -20. Each crewmember takes a "C" Impact critical. -5 to Screens. +140 Hits.	Blast knocks out foe's Computer. No Program bonuses may be used, and no other Programs may be run in the Processor. Craft is drifting helplessly. +300 Hits.
51-55	Deflected impact staggers Screens. Foe's Screen Generator takes Light damage, causing Screens to be reduced by 10. +2 Hits.	If foe has Screens, they are at -5, and +4 Hits. If foe has no Screens, +16 Hits.	Crushing strike sends foe Out of Control. If craft has no Armor Belt, each crewmember takes a "C" Impact critical. +14 Hits.	Foe's Screen Generator knocked out by your attack, and he is sent Out of Control. +180 Hits.	Concussion rocks Screens. Screen Generator knocked out and Cargo Hold gutted. Also, if foe has no Armor Belt, crewmembers stunned 1-10 Rounds. +400 Hits.
56-60	If foe has no Screens, his Life Support system takes Light damage. Crew will die in 2 hours unless damage is repaired. +2 Hit.	Detonation sends foe Out of Control. +4 Hits.	Blast delivers Moderate damage to Life Support system. Crew will die in 60 minutes unless damage repaired. One Payload Pallet and load are destroyed. -5 to Screens. +20 Hits.	Brutal concussions deliver a "D" Impact critical to each crewmember. -10 to Screens. +240 Hits.	Crushing blast felt by crew. Each crewmember takes an "E" Impact critical. 1-10 Payload Pallets and loads are destroyed. -10 to Screens. +500 Hits.
61-65	Foe's Damage Control system knocked out for 2 Rounds. Any Cargo takes Moderate damage. +2 Hits.	If foe has no Armor Belt, no Energy Weapons may be fired next Round due to heat build-up. One Payload Pallet and load are destroyed. +6 Hits.	If foe has Armor Belt, one Auxiliary System is destroyed. If foe has no Armor Belt, 1-2 Auxiliary Systems are destroyed and all crewmembers take an "A" Impact critical. +26 Hits.	Foe's craft may undertake no Damage Control for the next 10 Rounds. Also, one Weapon Mount and two Payload Pallets plus loads are.destroyed. +300 Hits.	Blast rolls through craft. All systems knocked out. Foe drifts for 2-20 Rounds then explodes. +600 Hits.

20.2 BLAST CRITICAL STRIKE TABLE — vs. SMALL Vessels

	A	B	C	D	E
66	Hard strike delivers +100 Hits if foe has no Armor Belt. Otherwise, foe takes +200 Hits and crew stunned for one Rnd.	Brutal assault strikes foe's armor. If foe has an Armor Belt, +200 Hits, otherwise +400 Hits.	Concentrated blast, unimpeded by Screens, crushes foe's armor. +1000 Hits.	Pin-point strike obliterates foe's craft.	Foe's craft instantly crushed. There are no survivors.
67-70	If foe has no Armor Belt, impact causes an internal fire: craft takes 1 Hit/Rnd until flame put out.	If foe has no Armor Belt, he takes 2 Hits/Rnd due to an internal fire. Armor Belt notwithstanding, foe is sent Out of Control.	Foe's craft takes 4 Hits/Rnd due to an interior fire. If foe has no Screens, he is sent Out of Control.	If foe has no Screens, he takes 10 Hits/Rnd from internal fire. In any event, one Auxiliary System is destroyed.	Flames rage inside foe's craft. If vessel has Armor Belt, craft takes 20 Hits/Rnd. Otherwise, it explodes at the beginning of next Round.
71-75	Shuddering blast sends vessel Out of Control and stuns crew for 1-5 Rounds. +4 Hits.	Rocking barrage delivers an "B" Impact critical to each crewmember. Any cargo takes Moderate damage. -5 to Screens. +6 Hits.	Brutal concussion stuns crew for 2-20 Rounds. 1-2 Energy Weapon Mounts are knocked out. +32 Hits.	Merciless waves of concussion stun foe's crew for 10 Rounds. Cargo Hold destroyed; cargo lost. If craft has no Armor Belt, crewmembers also take 1 "E" Impact critical each. -15 to Screens. +360 Hits.	Proximity blast kills all crewmembers. All of vessel's systems knocked out. It is drifting aimlessly. +700 Hits.
76-80	Resounding strike shorts out foe's RIF generator for 1-2 Rounds, during which foe may not exceed a Maneuvering Thrust of 1 nor engage Maximum Sublight Acceleration or the Translight Drive. +4 Hits.	Foe's RIF generator jarred and takes Light damage. Craft may not exceed a Maneuvering Thrust of 5 and may not engage Maximum Sub-light Acceleration or the Translight Drive. +8 Hits.	Foe's RIF generator is unusable for 1-10 Rounds, during which time craft may not exceed a Maneuvering Thrust of 1 and may not engage Maximum Sublight Acceleration. Additional Moderate damage knocks out foe's Translight Drive. +40 Hits.	Cruel energy discharges knock out foe's RIF generator. Vessel may not exceed a Maneuvering Thrust of 1 nor engage Maximum Sublight Acceleration or the Translight Drive. +440 Hits.	RIF Generator takes Extremely Severe damage. Craft without a back-up will disintegrate as soon as it uses any Drive unit. +1000 Hits.
81-85	Blast causes foe's Screens to be reduced by 5. Crew is stunned for 1-2 Rounds. One Payload Pallet and load are destroyed. +4 Hits.	Raking blasts impede Computer performance. Moderate damage causes Tactics, Predict and Evade Programs to be reduced by 10 each. In addition, no Maneuvers may be performed next Round. -20 to Screens. +5 Hits.	Crushing attack inflicts Severe damage to foe's Computer: Predict, Evade, and Tactics Programs are erased and lost permanently. -5 to Screens. +50 Hits.	Explosion causes foe's craft to drift inert for 2-20 Rounds, during which it may take no other action. +540 Hits.	Foe's craft gutted by point-blank detonation. It is destroyed.
86-90	Shuddering discharge knocks out one Weapon Mount for 1-2 Rounds. -5 to Screens +6 Hits.	Moderate damage to all of foe's Payload Pallets prevents their loads from functioning. -5 to Screens. +12 Hits.	Primary blasts knock out 1-5 Weapon Mounts. Secondary concussions stun crew for 1 Round. +60 Hits.	Foe's craft brutalized by detonation. Weapons and Reactor overload. Craft drifts helplessly for 1 Round then explodes. Sadly, only one crewmember can make it to a functioning Life Pod. +660 Hits.	Craft loses structural integrity. It will be destroyed next Round as it falls apart. Very sad.
91-95	Proximate blast shorts out a Sublight Drive sub-system: foe may not use Maximum Sublight Acceleration for 1-5 Rounds. Additional Moderate damage prevents any use of the Translight Drive. +6 Hits.	Blast sends foe Out of Control. +14 Hits.	Sublight Drive takes Severe damage. Foe's craft may not engage Maximum Sublight Acceleration, and loses 1-10 from Maneuvering Thrust points. +80 Hits.	Blast internalized by foe. Craft is destroyed.	Annihilating blast destroys foe's craft and kills crew.
96-99	Secondary discharges cause Light damage to foe's reactor. Crew takes one "B" Radiation Critical per minute. One Payload Pallet and load are destroyed. One Energy Weapon Mount may not fire next Round. +8 Hits.	Concussion forces foe's reactor to shut down for 1-5 Rounds, during which his vessel drifts inert and helpless. Only the Life Pods are functioning! +16 Hits.	Blast causes foe's Reactor to overload. Craft may take 1-5 Rounds of normal activity, but then is destroyed as Reactor detonates. +100 Hits.	Hull collapses under barrage, eliminating vessel.	Foe totally eliminated in a single, cruel instant. There are no survivors.
100	Blast crushes bulkhead. Foe's craft will explosively decompress at the beginning of the next Round. +10 hits.	Powerful blast collapses foe's craft. It is destroyed.	Direct hit eliminates foe's craft. It was glorious!	Your blast disembowels foe's craft. Crewmembers perish.	Foe's craft disappears in explosion. Totally awesome.

	A	B	C	D	E
01-05	No extra damge. -10 to your next attack with this Gunner.	No extra damage.	Clearly miss all of foe's major systems.	Foe may attempt no Maneuvers next Round. +1 Hit.	Just +2 Hits.
06-10	Target evades killing strike, though one Payload Pallet and load are destroyed.	If foe has no Armor Belt, he takes Light damage to the vessel's Landing Gear which will penalize landing attempts by -10.	Light damage to attitude thrusters causes all of foe's landing and docking attempts to be performed at -10. One Fighter Bay takes Severe damage, destroying any vessel there.	Foe takes Light damage to Landing Gear. Craft may not make Planetfall. Moderate damage to power conduit prevents one Energy Weapon Mount from discharging. +5 Hits.	Foe's craft may not land or dock unaided due to Very Severe damage to Landing Gear and Attitude Thrusters. Power surge knocks out two Energy Weapon Mounts. +10 Hits.
11-15	Foe's Maneuvering Thrust reduced by 1 next Round.	If foe has no Screens, a random energy dissipation reduces his Maneuvering Thrust by 2 next Round.	Foe's Microfreq Rig knocked out. Sick Bay capacity drops by 1-10 due to Moderate damage. If foe has no Screens, a power flux prevents his Energy Weapons from firing next Round. +1 Hit.	Energy discharge fries Comm arrays. All of foe's Communication systems Very Severely damaged. Additional Severe damage reduces foe's Maneuvering Trust by 2. +10 Hits.	All of foe's Communications systems knocked out. One Turret Weapon Mount knocked out. 1-5 Labs knocked out. Cargo takes Severe damage. -5 to Screens. +20 Hits.
16-20	If foe has no Screens, his Predict Program will be at -5 next Round. Light damage reduces foe's MTs by 2.	Over-heating knocks out one of foe's HUD units. Microfreq Rig takes Light damage. One Payload Pallet and load destroyed. +1 Hit.	Cruel rays cause Moderate damage to foe's Computer: -5 to Predict and Evade Programs. If foe has Screens, one HUD unit is knocked out. Otherwise, 1-5 HUD's are knocked out. +2 Hits.	Pulsed burst wreaks havoc on foe's craft. Sensors knocked out. 20% crew casualties. Maneuvering Thrust reduced by 3. Cargo Hold gutted and cargo destroyed. -5 to Screens. +20 Hits.	Foe's Tactics, Predict, and Evade Programs reduced by 30 each due to Very Severe Computer damage. If craft has no Armor Belt, Maneuvering Thrust reduced by 5 due to Severe damage. +40 Hits.
21-35	Foe's EW reduced by 5 due to Light damage. In addition, foe's MTs reduced by 2 for 5 Rounds.	Foe may not perform any Maneuvers for the next 1-2 Rounds. If foe has no Armor Belt, additional Light damage reduces his MTs by 1. +1 Hit.	Strike causes Moderate damage to foe's EW system, reducing it by 20. If vessel has no Armor Belt, additional Light damage reduces Maneuvering Thrust by 1. +3 Hits.	Screens deflect your strike. Foe may not discharge any Torpedoes for 1-10 Rounds. If foe has no Armor Belt, his EW is reduced by 25 due to Moderate damage. +35 Hits.	Unbearable energy surge knocks out foe's EW. Also, if foe has no Screens, Computer takes Moderate damage causing Predict and Evade Programs to operate at -30 each. Sick Bay destroyed. +70 Hits.
36-45	If foe has no Screens, one Weapon Mount targeting system shorts out. He may not discharge the weapons of one mount for 1 Round.	Feeble attempt to pierce opponent results in one of foe's Energy Weapon Turrets to be inoperative next Round. +1 Hit.	Energy surge. 1-5 of foe's Energy Weapon Mounts may not fire next Round. One Tractor Beam knocked out. If foe has no Armor Belt, 1-5 Labs destroyed. -5 to Screens. +4 Hits.	Piercing beams cause 10% crew casualties. 1-2 Weapon Mounts knocked out. Severe damage reduces foe's MTs by 1-5. 10 Staterooms and all Recreational facilities destroyed. +50 Hits.	Blistering attacks knock out 1-5 Weapon Mounts and 2-20 Payload Pallets. If foe has no Armor Belt, MSA capability is knocked out. -20 to Screens. +100 Hits.
46-50	Your soft strike gives foe's computer a Routine Malfunction: -5 to Evade Program. One Fighter destroyed in Bay.	Foe's automatic Damage Control capabilities non-functional for 1-5 Rounds. -5 to Screens. +2 Hits.	Hard strike affects computer processing; Tactics Program inoperative for 1-5 Rnds. If foe has no Screens, concussion causes 10% crew casualties. +5 Hits.	Foe's Computer takes Severe damage: Tactics, Predict and Evade Programs are each at -20. One Turret Weapon Mount knocked out. -10 to Screens. +70 Hits.	Computer takes Severe damage: no Rated Program bonuses may be used. 10% crew casualties. If foe has no Armor Belt, MTs reduced by 1-5 due to Severe damage. +150 Hits.
51-55	Deflected beam jars Maneuvering Thrusters; MTs reduced by 1 due to Moderate damage. If foe has no Armor Belt, -5 to Screens. +1 Hit.	Foe's armor absorbs strike, but his Screens are at -10 for 1-5 Rounds. Any cargo takes Light damage. +2 Hits.	Cruel strike temporarily shorts out foe's EW. Craft has no EW for 1-2 Rounds. Also, if foe has no Armor Belt, one Auxiliary System is destroyed. +7 Hits.	Screen Generator knocked out by penetrating blast: foe has no Screens. Dispensary destroyed. If foe has no Armor Belt, 30% crew casualties. +90 Hits.	Tumultuous blast knocks out Screens. Crewmembers stunned for 2 Rounds. Very Severe damage reduces MTs by 1-10. All Energy Weapons knocked out. +200 Hits.
56-60	Foe's Life Support system takes Light damage from your concentrated attack. Crew will die in 10 hours. +1 Hit.	Lancing shot delivers Moderate damage to Life Support system. Crew will die in 5 hours. A short circuit reduces MTs by 1-2 for 2 Rnds. +2 Hits.	Penetrating ray delivers Moderate damage to Life Support system. Crew will die in 1-5 hours. -10 to Screens. +10 Hits.	Overbearing attack gives foe's Life Support system: crew will die in 30 minutes. Very Severe damage reduces MTs by 5. -5 to Screens. +120 Hits.	Strike causes toxin to flow through Life Support system. Crewmembers will die in 10 Rounds unless they abandon ship within 1-5 Rounds. -20 to Screens. +250 Hits.
61-65	Foe's Damage Control capability lost for 2 Rounds due to your determined blow. One Missile Launcher jams due to Light damage. +1 Hit.	Damage Control system knocked out by your disrupting shot. Also, no Energy Weapons may be fired next Round. +3 Hits.	Damage Control capability lost due to your attack. If foe has no Armor Belt, one Energy Weapon Mount knocked out and Cargo Hold destroyed. -20 to Screens. +13 Hits.	Damage Control knocked out. One Turret Weapon Mount knocked out. All Shuttle/Vehicle Bays are Severely damaged and in-bay constructs destroyed. 10% crew casualties. +150 Hits.	Rude energy blast guts through craft. 40% crew casualties. 2-20 Fighter Bays and contents destroyed. All Payload Pallets knocked out. +300 Hits.

20.3 PIERCE CRITICAL STRIKE TABLE — vs. MEDIUM Vessels

	A	B	C	D	E
66	Searing strike delivers +50 Hits if foe has Armor Belt. Otherwise, foe takes +100 Hits and may not attempt any Maneuvers next Round.	Strike rips through screens and rakes foe. If he has an Armor Belt, +100 Hits. Otherwise, he takes +200 Hits and is stunned for one Round.	Energy lance, unimpeded by Screens, tears up foe's armor. If foe has Armor Belt, +500 Hits. Otherwise, +1000 Hits.	Cruel, sizzling bursts rip into foe's craft. If vessel has Armor Belt, +5000 Hits. Otherwise, +10,000 Hits. Add +10 to this Gunner's next attack.	Foe's hull splits open. If craft has Armor Belt, +100,000 Hits. Otherwise, it is destroyed with no survivors.
67-70	If foe has no Screens, a penetrating energy swath ignites an internal fire. Foe's craft takes 1 Hit/Rnd until flame put out. Roll one Random Malfunction.	Heat from your blast triggers interior fire in foe's craft. Vessel takes 2 Hits/Rnd until flames put out. 1-5 Staterooms destroyed and cargo takes Light damage.	Undissipated heat ignites interior fire. Foe's craft takes 4 Hits/Rnd until flames are extinguished. If foe has no Screens, he takes additional Light damage reducing Maneuver Thrust by 1.	Strike proves to be too much for foe's armor. One Auxiliary System destroyed. If foe has Armor Belt, his craft takes 10 Hits/Rnd from internal fire. Otherwise, 20 Hits/Rnd.	Flames rage through craft's interior, causing it to take 20 Hits/Rnd. 50% crew casualties. Workshop destroyed. One Auxiliary System destroyed. Cargo Severely damaged.
71-75	Moderate damage reduces foe's Maneuvering Thrust by 1. MSA unusable for 3 Rounds. If foe has no Screens, one HUD is knocked out. +2 Hits.	Energy discharges cause 10% crew casualties. Light damage to the Translight Drive. Cargo takes Moderate damage. One Torpedo lost. -5 to Screens. +3 Hits.	Blazing strike causes 10% crew casualties. One on-board shuttle or figther is destroyed. If foe has no Armor Belt, one Auxiliary System is destroyed. +16 hits.	Rocking strike to armor causes 10% crew casualties. Cargo Bay destroyed and cargo lost. 1-10 Payload Pallets and their loads are destroyed. -10 to Screens. +180 Hits.	Secondary concussion causes 70% crew casualties. Cargo Hold and contents destroyed. All Payload Pallet loads lost. Roll 2-20 Random malfunctions. -30 to Screens. +350 Hits.
76-80	Crackling strike causes foe's RIF generator to short out for 1-2 Rounds during which foe may not exceed a Maneuvering Thrust of 1 nor engage MSA or Translight Drive. +2 Hits.	Foe's RIF generator takes Light damage. Craft may not exceed a Maneuvering Thrust of 1 and may not engage MSA or Translight Drive. +4 Hits.	Piercing strikes knock out foe's RIF generator. Craft may not exceed a Maneuvering Thrust of 1 and may not engage MSA or Translight Drive. 1-10 Torpedoes lost. +20 Hits.	Severe damage to foe's RIF. Each Round the vessel uses its drives, roll an unmodified Mk.50 Explosive Warhead attack against it on the CAT 21 column due to random inertial applications. +220 Hits.	RIF Generator knocked out. Craft will disintegrate in 2-20 Rounds unless it can come to a complete stop before then. Severe damage reduces MTs by 10 and knocks out MSA capability. +500 Hits.
81-85	Foe's Computer takes Moderate damage. -10 to Tactics Program. Additional Light damage reduces Maneuvering Thrust by 2. +2 Hits.	Raking shots impede Computer performance. Light damage causes Predict, Evade, and Tactics Programs to be reduced by 5 each. One Workshop loses half of its CIP stockpile. +5 Hits.	Determined attack sends foe Out of Control. Additionally, 1-5 Payload Pallets and loads are destroyed, and one Energy Weapon Mount is knocked out. +25 Hits.	Pyrotechnic interior explosions cause 2-20 Random malfunctions. 50% crew casualties. All Crew Quarters destroyed. 2-20 Staterooms and 1-100 Cryogenic Berths destroyed. +270 Hits.	Energy beams run amok, knocking out all Weapon Systems, Payload Pallets, Sensors, Communications, Labs and Drives. 50% crew casualties. +700 Hits.
86-90	Destructive energy causes one Weapon Mount to be inoperative for 1-10 Rounds. Also, one Payload Pallet and load are destroyed. -5 to Screens. +3 Hits.	Knock out 1-5 of foe's Payload Pallets: loads unusable. If foe has no Armor Belt, additional Light damage reduces foe's Maneuvering Thrust by 3. -5 to Screens. +6 Hits.	Hot secondary blasts overload Weapon systems. Auto Cannons and Missile Launchers may not fire next Round, while Energy Weapons may not fire for 1-10 Rounds. Cargo takes Light damage. +30 Hits.	Foe's craft reels under your impacting energy bursts. All Energy Weapons overload and are knocked out. Very Severe damage reduces foe's Maneuvering Thrust by 1-10. +330 Hits.	Point-blank strikes cause foe's craft to lose structural integrity. It functions normally for 1-5 Rounds, then is destroyed. +1000 Hits.
91-95	Lucky blow delivers Moderate damage to the Sublight Drive, reducing foe's Maneuvering Thrust by 1-5. +3 Hits.	Moderate damage to foe's Sublight Drive caused by your sneaky burst reduces craft's Maneuvering Thrust by 1-10. MSA is knocked out. One Security Station destroyed. +7 Hits.	Sublight Drive takes Severe damage. Foe's vessel is drifting. If foe has no Armor Belt, 1-5 Fighter Bays are destroyed, including any stored craft. +40 Hits.	Ravaging beams of destruction criss-cross foe. All Drive systems are knocked out. 1-10 Weapon Mounts are destroyed. Craft is drifting. +400 Hits.	Scorching rays of death scrap craft. It is reduced to 10 Hits short of complete destruction. 70% crew casualties. Vessel drifts disabled and utterly helpless.
96-99	Cruel strike causes Light damage to foe's EW. 10% crew casualties. Secondary Light damage reduces foe's Maneuvering Thrust by 2. +4 Hits.	Piercing stream of energy temporarily overloads foe's reactor. Vessel must drift helplessly for 1-2 Rounds before taking any action. Craft may operate normally afterward. +8 Hits.	Ray of destruction burns through Screens, breeches hull, then melts down foe's Reactor. Powerless, craft drifts helplessly. +50 Hits.	Hull breached by pinpoint assault. Reactor overloads, explosively destroying craft in 1-10 Rounds. 50% crew casualties. +500 Hits.	Foe disappears in fireball. There are no survivors.
100	Bulkhead penetrated by your pinpoint attack. 30% crew casualties. One Weapon Mount knocked out. Craft sent Out of Control. +5 hits.	Powerful swath of energy pierces hull. Foe suffers 30% crew casualties, and his MSA capability is lost due to Severe damage. One Weapon Mount of the attacker's choice is knocked out. Roll 1 Random Malfunction +10 Hits.	Foe's hull punctured in several places. Craft drifts one Round, then explodes.	Your artfully directed strikes detonate foe's ordnance and reactor. Craft destroyed, utterly.	Foe's craft is sent randomly through Hyper-space, whether it has Translight Drives or not. Roll 10D100 LY distance in a random direction. You won't be seeing this one for some time.

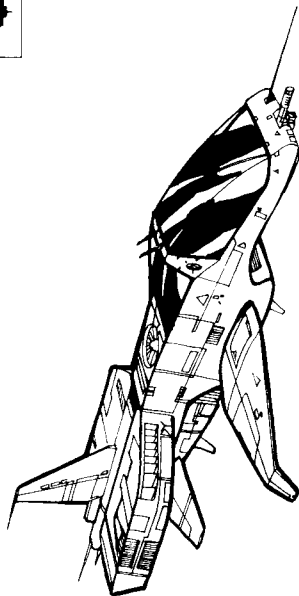|	A	B	C	D	E
01-05	Impressive pyrotechnics, but foe evades extra damage.	Discharging static.	A near miss.	Distant explosion. Foe may not attempt Maneuvers next Round. +2 Hits.	+4 Hits and a shower of sparks. Really weak.
06-10	Foe's armor deflects blast.	If foe has no Screens, he takes Light damage to the vessel's Landing Gear which will penalize landing attempts by -5.	Routine damage to Attitude Thrusters causes all of foe's landing and docking attempts to be performed at -5. +1 Hit.	Foe takes Light damage to Landing Gear: craft may not make planetfall. Also, target loses all Torpedoes. +10 Hits.	Foe's craft may not land or dock unaided due to Severe damage to Landing Gear and Attitude Thrusters. Cargo takes Moderate damage. +20 Hits.
11-15	One Payload Pallet and load destroyed. If foe has no Screens, his Maneuvering Thrust is reduced by 1 next Round.	If foe has no Armor Belt, secondary concussions reduce craft's Maneuvering Thrust by 4 next Round. +1 Hit.	Foe's Tight Beam Comm Rig takes Light damage. If foe has no Screens, a power flux prevents one Weapon Mount from firing next Round. +2Hit.	Blast wrecks Communications arrays. Foe's Tight Beam and TBD Rigs destroyed. If craft has no Armor Belt, foe's Maneuvering Trust is reduced by 6 for 1-5 Rounds. +20 Hits.	All of foe's Communications systems knocked out. 1-5 Missile Launchers knocked out. 1-5 Labs knocked out. One Workshop knocked out and CIP stockpile destroyed. +40 Hits.
16-20	If foe has no Armor Belt, he may not discharge one of his Energy Weapon Mounts next Round.	One Payload Pallet and load destroyed. TBD Communications Rig takes Light damage. +2 Hits.	Blast delivers Light damage to foe's Computer: -15 to Tactics Program. If foe has Screens, one HUD unit is knocked out. Otherwise, 1-5 Payload Pallets are knocked out: loads unusable. +4 Hits.	Energy wave wreaks havoc on foe's craft. Sensors and 1-5 Turrets knocked out. 30% crew casualties. EW reduced by 10 due to Moderate damage. Cargo Hold gutted and cargo destroyed. +40 Hits.	Foe's Tactics, Predict, and Evade Programs reduced by 10 each due to Very Severe Computer damage. If craft has no Armor Belt, Maneuvering Thrust reduced by 3 due to Severe damage. +80 Hits.
21-35	Dissipated charge reduces foe's EW by 5 due to Light damage. If craft has no Armor Belt, reduce MTs by 2 for 5 Rounds. +1 Hit.	Lucky blast shuts down foe's EW system for 1 Round. If foe has no Armor Belt, Light damage reduces Maneuver Thrust points by 4. +2 Hits.	Shuddering blow hinders foe's EW system, reducing it by 10 for 1-5 Rounds. If vessel has no Armor Belt, additional Light damage reduces Maneuvering Thrust by 2. +6 Hits.	Screens deflect blast. Foe may not discharge any Missile Launchers for 1-5 Rounds. If foe has no Armor Belt, -20 to Screens and one Auxiliary System Severely damaged. +70 Hits.	Blast knocks out foe's EW. Sick Bay destroyed. Also, if foe has no Armor Belt, his Cargo takes Severe damage causing the Tactics Program to be useless. +140 Hits.
36-45	If foe has no Screens, one Energy Weapon Mount targeting system shorts out. He may not discharge any Firing Mechanisms from that mount for 5 Rnds. +1 Hit.	Dispersed detonation causes one of foe's Energy Weapon Turret Mounts to be inoperable next Round. Cargo takes Moderate damage. +3 Hits.	Power surge. 1-2 of foe's Energy Weapon Mounts may not fire next Round. One Tractor Beam knocked out. If foe has no Armor Belt, one Lab destroyed and Cargo takes Light damage. +8 Hits.	Detonation cause 30% crew casualties. 1-2 Energy Weapon Mounts knocked out. Severe damage reduces foe's MTs by 4. MSA capability is knocked out. 10 Staterooms and Recreational facilities destroyed. +100 Hits.	Detonation destroys 2 Turret Mounts and 1-5 Payload Pallets: loads lost. If foe has no Armor Belt, MSA capability is knocked out, and MTs reduced by 5 due to Moderate damage. +200 Hits.
46-50	Your wimpy shot delivers a Routine malfunction to foe's Computer: -5 to Tactics Program. If foe has no Armor Belt, one Shuttle destroyed in Bay. +1 Hit.	Foe's Damage Control capabilities non-functional for 2 Rounds. If craft has no Armor Belt, -5 to Screens. +3 Hits.	Brutal blasts affect computer processing; Predict and Evade Programs inoperative for 1-2 Rounds. Foe takes 20% crew casualties. +10 Hits.	Foe's Computer takes Moderate damage: Tactics, Predict and Evade Programs are at -40 each. If craft has no Armor Belt, one Turret Weapon Mount is knocked out. +140 Hits.	Foe's Computer takes Severe damage: no Rated Program bonuses may be used. 30% crew casualties. If foe has no Armor Belt, Control Area is destroyed and -5 to Screens. +300 Hits.
51-55	Splattered blast rocks Sublight Drive; Maneuvering Thrust reduced by 3 due to Light damage. If foe has no Armor Belt, cargo takes Light damage. -5 to Screens. +2 Hits.	Foe's armor absorbs strike, but his Screens are at -5 for 2 Rounds. Foe may perform no Maneuvers for 1-5 Rounds. +4 Hits.	Explosion knocks out 2 of foe's Tractor Beams. No Maneuvers allowed next Round. Also, if foe has no Armor Belt, one Aux System is destroyed. -5 to Screens. +14 Hits.	Screen Generator performance impeeded: foe has no Screens for 1-5 Rounds. Dispensary destroyed. If foe has no Armor Belt, 40% crew casualties and 1-10 Random malfunctions result. +180 Hits.	Belaboring strike knocks out foe's Screens. Severe damage reduces Maneuvering Thrust by 5. If craft has no Armor Belt, 1-10 Energy Weapon Mounts knocked out. +400 Hits.
56-60	Foe's Life Support system takes Light damage from your strike: crew will die in 20 hours. 2 Payload Pallets and loads are destroyed. +2 Hits.	Strike delivers Light damage to Life Support system: crew will die in 10 hours. A short circuit reduces Maneuvering Thrust by 3 for the next 2 Rounds. +5 Hits.	Crackling energy waves deliver Light damage to Life Support system: crew will die in 1-10 hours. If foe has no Armor Belt, crew is stunned for 2 Rnds. +10 Hits.	Brutal blow gives foe's Life Support system Moderate damage: crew will die in 1 hour. 30% crew casualties. If craft has no Armor Belt, -5 to Screens. +240 Hits.	Strike sadly delivers 90% crew casualties. Sensors, EW and Screens knocked out. Cargo Bay and contents destroyed. +500 Hits.
61-65	Blistering fragments shut down foe's Damage Control capability for 10 Rnds. If craft has no Armor Belt, reduce MTs by 4 for 5 Rounds. +2 Hits.	Cruel blast. No Energy Weapons may be fired by foe for 1-5 Rounds. One Missile Launcher destroyed. +6 Hits.	Damage Control capability knocked out due to your attack. If foe has no Armor Belt, one Turret Mount knocked out, and one Shuttle/Vehicle Bay Severely damaged, destroying contents. +26 Hits.	One of foe's Energy Weapon Mounts is knocked out. 2-20 Fighter Bays are Severely damaged and contents destroyed. Cargo takes Severe damage. +300 Hits.	Blasts ravage craft. Roll 5 Severe Random malfunctions. 40% crew casualties. 2-20 Fighter Bays destroyed, including contents. All Cryogenic Berths and 1-5 Labs destroyed. +600 Hits.

	A	B	C	D	E
66	Rocking blast delivers +100 Hits if foe has Armor Belt. Otherwise, foe takes +200 Hits and crew is stunned for 1 Round.	If foe has an Armor Belt, +200 Hits and Armor Belt bonus is reduced by half. Otherwise, he takes +400 Hits and crew stunned for 1-2 Rounds.	Blast tears up hull plating. If foe has Armor Belt, +1000 Hits and Armor Belt bonuses are lost. Otherwise, +2000 Hits and crew takes 30% casualties.	Raking bursts rip up foe's hull plating. If vessel has Armor Belt, +10,000 Hits and Armor Belt bonuses lost. Otherwise, +40,000 Hits and crew is stunned for 10 Rounds.	Foe's hull armor boiled away and craft gutted by vacuum. Vessel destroyed with no survivors. Sad.
67-70	Discharging energy ignites an internal fire. Foe's craft takes 1 Hit/Rnd until flame put out. Roll for two Random malfunctions.	Dissipating heat from detonation triggers interior fire in foe's craft. Vessel takes 2 Hits/Rnd until flames put out. 1-10 Cryogenic Berths are destroyed.	Interior fire. Foe's craft takes 4 Hits/Rnd until flames are extinguished. If foe has no Armor Belt, he takes additional Light damage to the Sublight Drive, reducing MTs by 1.	Blast slams foe. Severe damage knocks out Translight Drive. If craft has Armor Belt, it takes 10 Hits/Rnd from internal fire. Otherwise, 20 Hits/Rnd.	Flames rage through craft's interior, causing it to take 20 Hits/Rnd. 50% crew casualties. Workshop destroyed. One Auxiliary System Very Severely damaged. -10 to Screens.
71-75	Moderate damage to the Sublight Drive reduces foe's MTs by 2. 1-5 Torpedoes are lost. If foe has no Armor Belt, 1-5 HUD's are knocked out. +3 Hits.	Pressure wave concussions cause 10% crew casualties. If foe has no Armor Belt, 1-2 Fighters are destroyed in their Bays. Cargo takes Moderate damage. +7 Hits.	Rocking strike causes 20% crew casualties. 1-5 on-board Shuttles and/or Vehicles are destroyed. 1-2 Missile Launchers jam and are unable to discharge for 2 Rounds. If foe has no Armor Belt, one Workshop and its CIP stockpile are destroyed. +32 Hits.	Crushing blast sends foe Out of Control. 60% crew casualties. One Tractor Beam knocked out. If craft has no Armor Belt, Cargo Bay destroyed and cargo lost. +360 Hits.	Tumultuous explosion causes 90% crew casualties. Roll 2-20 Severe Random malfunctions. All Turrets knocked out. +700 Hits.
76-80	Penetrating shock waves shut down foe's RIF generator for 2 Rounds, during which foe may not exceed an MT of 1 nor engage MSA or Translight Drive. +4 Hits	Foe's RIF generator shorts out momentarily. For 1-5 Rounds, craft may not exceed a Maneuvering Thrust of 1 and may not engage MSA or Translight Drive. +8 Hits.	Concussion temporarily impedes foe's RIF generator. For 10 Rounds, craft may not exceed an MT expenditure of 1 and may not engage MSA or Translight Drive. +40 Hits.	Detonating strike knocks out foe's RIF generator. Craft may not exceed a Maneuvering Thrust of 1, nor engage MSA capability or Translight Drive. -20 to Screens. +440 Hits.	Severe damage impeeds RIF Generator performance. Craft torn apart and destroyed by the random application of inertia the Round after it uses Drives, or Drifts. +1000 Hits.
81-85	Foe's Computer takes Light damage: -10 to Predict and Evade Programs. If craft has no Armor Belt, additional Light damage reduces Maneuvering Thrust by 2. +5 Hits.	Scattering blast affects Computer performance. Light damage causes Predict or Evade Program to be reduced by 30. If foe has no Armor Belt, one Auxiliary System is Very Severely damaged. +10 Hits.	Hard blast on Screen sends foe Out of Control and causes 10% crew casualties. If foe has no Armor Belt, 1-2 Auxiliary Systems are Very Severely damaged. +50 Hits.	Multiple bursts generate 50% crew casualties. All Crew Quarters and Staterooms destroyed. All Missile Launchers jam due to Moderate damage. If foe has no Armor Belt, one Auxiliary System is destroyed. +540 Hits.	All Weapon Mounts, Payload Pallets, Sensors, Communication Rigs, Auxiliary Systems and Drives knocked out. 70% crew casualties. +1400 Hits.
86-90	Well timed delivery causes one Energy Weapon Mount to be inoperative for 1-5 Rounds. 2 Payload Pallets and loads destroyed. -5 to Screens. +6 Hits.	Knock out 1-5 of foe's Payload Pallets: loads unusable. Foe may not attempt any Maneuvers next Round. If foe has no Armor Belt, 1-5 Missile Launchers are knocked out. +12 Hits.	Hot detonation overloads Firing Mechanisms. Auto Cannons may not fire next Round, while Energy Cannons may not fire for 1-10 Rounds. If foe has no Armor Belt, -10 to Screens. +60 Hits.	Foe's Energy Weapons overload and are knocked out. Very Severe damage reduces foe's MTs by 1-10. If craft has no Armor Belt, 1-5 Labs are destroyed and cargo Severely damaged. +660 Hits.	Detonation on hull destroys foe's craft.
91-95	Concentrated strike delivers Light damage to the Sublight Drive: MSA capability lost and MTs reduced by 2. If foe has no Armor Belt, one Workshop's CIP stockpile is destroyed. +7 Hits.	Burst delivers Light damage to foe's Sublight Drive, reducing craft's Maneuvering Thrust by 1-5. If craft has no Armor Belt, foe's Security Station is destroyed. +14 Hits.	Sublight Drive takes Moderate damage: foe loses MSA capability and has his Maneuvering Thrust reduced by 10. If foe has no Armor Belt, he takes 30% crew casualties. +80 Hits.	Blast engulfs foe. Translight Drive is knocked out. 1-10 Weapon Mounts destroyed. If foe has no Armor Belt, 40% crew casualties. +800 Hits.	Crippling blast causes 80% crew casualties and utterly destroys vessel.
96-99	Proximate detonation sends foe's vessel Out of Control. If craft has no Armor Belt, secondary Light damage reduces foe's Maneuvering Thrust by 3. +8 Hits.	Funneled stream of destruction temporarily overloads foe's Reactor. Vessel must drift helplessly for 1-2 Rounds before taking any action. +16 Hits.	Point blank detonation destroys foe's Reactor. Powerless, craft drifts helplessly. Very strange: half of craft's Life Pods prematurely eject. Oh well. +100 Hits.	Hull breach. Reactor overloads, explosively destroying craft in 2-20 Rounds. 50% crew casualties. Sensors, Screens and EW knocked out. +1000 Hits.	Crushing strike destroys foe's vessel. There are no survivors.
100	Blast on hull. Foe's crew is stunned for 1-5 Rounds. MSA capability knocked out. Roll one Severe Random malfunction. -15 to Screens. +10 Hits.	Strike cracks hull. Foe suffers 40% crew casualties. His MSA capability is lost and MTs are reduced by 1-10, due to Moderate damage to the Sublight Drive. Craft is sent Out of Control. +20 Hits.	Strong secondary explosions destroy foe's Control Area and Drives. Crew takes 50% casualties. Craft is drifting. +150 Hits.	Proximity detonation destroys foe's craft. It was quick.	Annihilating explosion engulfs foe; never to be seen again. No one gets out alive.

	20.5 CRITICAL STRIKE TABLE — vs LARGE Vessels		**20.6 CRITICAL STRIKE TABLE — vs SUPER LARGE Vessels**	
	Pierce	**Blast**	**Pierce**	**Blast**
01-05	Deflected raking shots deliver +100 Hits, but in your ferver, you overload your weapon's capacitors. You may not discharge this Weapon Mount next Round.	Multiple concussions deliver +100 Hits, but your Sensors are momentarily dazzled by the display. Sensors are at -20 for 6 Rounds.	Refracted but determined strikes deliver +100 Hits. Unfortunately, your Weapon Mount jams and is unable to fire for 1-2 Rounds.	Blast delivers +100 Hits, but your EW system is momentarily scrambled. EW is at -20 for 6 Rounds.
06-10	+5 Hits.	+15 Hits.	+5 Hits.	+30 Hits.
11-20	1 Random Light malfunction. +10 Hits.	+30 Hits.	+10 Hits.	+60 Hits.
21-30	2 Random Light malfunctions. +20 Hits.	1 Random Light malfunction. +60 Hits.	+20 Hits.	+120 Hits.
31-40	2 Random Medium malfunctions. +40 Hits.	1 Random Light malfunction. +120 Hits.	+40 Hits.	+240 Hits.
41-50	3 Random Medium malfunctions. Light damage reduces MTs by 1. +70 Hits.	2 Random Light malfunctions. +210 Hits.	1 Random Light malfunction. +70 Hits.	+420 Hits.
51-65	10% of any cargo carried is Moderately damaged. 1 Random Severe malfunction. +110 Hits.	10% of any Staterooms on board are destroyed. 2 Random Medium malfunctions. +330 Hits.	Foe loses one Workshop and its CIP stockpile. 1 Random Medium malfunction. +110 Hits.	1 Random Light malfunction. +660 Hits.
66	Penetrating shot burns through Screens and slices hull armor. Reactor hit. Vessel operates normally for 20 Rounds, then explodes.	Miraculous point blank detonation rocks foe's vessel. Reactor overloads and will cause a cataclysmic destruction of the vessel in 30 Rounds. Foe's reactor may not be shut down.	Shocked foe bears the brunt of your well directed attack. Vessel's Computer, Drives and back-ups are destroyed. Foe is drifting helplessly. +1000 Hits.	Seeing-eye attack detonates just inside foe's hull. 50% crew casualties. With Drives out, vessel drifts 60 Rounds then explodes in a brilliant flash.
67-70	1-10 of foe's Weapon Mounts knocked out. Moderate damage reduces MTs by 1. +160 Hits.	Foe's Fighter Bay affected by blast: 1-10 carried Fighters destroyed. 2 Random Medium malfunctions. 10% crew casualties. +480 Hits.	1 Random Medium malfunction. Moderate damage reduces MTs by 1. +160 Hits.	1 Random Medium malfunction. Moderate damage reduces MTs by 1. +960 Hits.
71-80	EW Generator takes Moderate damage: -20 to EW. +220 Hits.	Foe's Armor Belt shattered. Reduce Armor Belt bonus by 10. Moderate damage reduces MTs by 1. +660 Hits.	1 Random Severe malfunction. -10 to Screens. +220 Hits.	Foe's Armor Belt loses some integrity. Reduce Armor Belt bonus by 5. 1 Random Medium malfunction. +1320 Hits.
81-90	Screen Generator takes Moderate damage: -20 to Screens. +300 Hits.	Screen Generator takes Moderate damage: -10 to Screens. +900 Hits.	1 Random Very Severe malfunction. -15 to Screens. 10% crew casualties. +300 Hits.	1 Random Severe malfunction. 10% crew casualties. +1800 Hits.
91-95	Raking energy beams effect several systems, each with Moderate damage: -10 to Sensors, -10 to Screens, -20 to EW, and Maneuvering Thrust reduced by 1-2. +400 Hits.	Proximate blast affects multiple systems each with Moderate damage: -5 to EW, -5 to Screens and -10 to Sensors. 10% crew casualties. +1200 Hits.	Powerful destructive swaths deliver Moderate damage to multiple systems: -15 to Sensors, -10 to Screens, -10 to EW, and Maneuvering Thrust reduced by 1. +400 Hits.	Explosion inflicts Moderate damage on several systems: -10 to EW, -5 to Screens and -5 to Sensors. +2400 Hits.
96-98	Ravening streams of energy destroy foe's Sublight and Translight Drives. 10% crew casualties. +500 Hits.	Localized blast knocks out foe's MSA capability. MTs reduced by a half for 10 Rounds. +1500 Hits.	Cruel beams deliver Severe damage to foe's Translight Drive. +500 Hits.	Lucky blast knocks out foe's Life Support and all Aux Life Support units. Crew will perish in one hour. +3000 Hits.
99-100	Gruesome, but adept, display of gunnery skill. Ripping strike bores into foe's reactor core, destroying vessel in an instantaneous, irresistable fireball. No survivors.	Hull pierced. Detonation occurs within foe's vessel, destroying it utterly in a fleeting instant. No survivors.	Your blistering strikes prove irresistible to foe's defenses. Vessel drifts helpless for 2 Rounds, then explodes.	Deep internal detonation. Foe's vessel operates normally for 1-10 Rounds, then is completely destroyed. If attack is Nuclear or M/A, destruction is immediate.
101-150	Passing shot discharges on the Power deck. Roll 1-5 Severe malfunctions on the Power Area of the Malfunction Chart. +1000 Hits.	Detonation within Screens destroys Screen Generator and causes 1-2 Severe malfunctions to be rolled on the Power Area of the Malfunction Chart. 20% crew casualties. +3000 Hits.	Strike slips through Screens before discharging its destructive energy. Roll 1-5 Random Severe malfunctions. Cargo takes Moderate damage. 10% crew casualties. +1000 Hits.	1 Random Very Severe malfunction. 30% crew casualties. +6000 Hits.
151-175	Cruel beams tear at Control systems. Roll 1-5 Very Severe malfunctions on the Control Area of the Malfunction Chart. 10% crew casualties. +5000 Hits.	Engulfing blast sends deadly concussion wave through Control Systems. Roll 1-2 Very Severe malfunctions on the Control Area of the Malfunction Chart. 30% crew casualties. +15,000 Hits.	Indescriminate rays penetrate vessel. Roll 1-10 Random Very Severe malfunctions. +5000 Hits.	1-5 Random Very Severe malfunctions. +30,000 Hits.
176-200	Vigorous attack brutalizes foe's Electro/Neutrino systems. Roll 1-5 Extremely Severe malfunctions on the Electro/Neutrino Area of the Malfunction Chart. +10,000 Hits.	Multiple interior blasts ravage foe. Vessel drifts inert for 10 Rounds, then explodes. 40% crew casualties. +30,000 Hits.	Energy tears through armor, reaching foe's interior systems. Roll 1-5 Random Extremely Severe malfunctions. 20% crew casualties. +10,000 Hits.	Your attack delivers 1-10 Random Extremely Severe malfunctions to foe's craft. +60,000 Hits.
201-250	Gunner overloads Screens, while follow-up attacks blow through Bridge and Auxiliary Systems. Foe is drifting helplessly with all Computers and Control Areas destroyed. +50,000 Hits.	Savage detonation converts foe's vessel into scrap metal. Craft destroyed.	Unbelievably, all of foe's major systems are knocked out. Foe is drifting, quite helpless. And they said it could never happen! +50,000 Hits.	Foe overwhelmed by stunning blast. 10% crew casualties. With all major systems knocked out, vessel drifts pathetically. +120,000 Hits.
251+	Brilliantly orchestrated attack! Not surprisingly, foe's craft begins to disintegrate. It explodes after drifting helplessly for 1-5 Rounds.	Foe's craft internalizes destructive energy, then disappears in a tremendous explosion.	Simply put, beam penetrates to reactor and detonates core. Vessel explodes in one Round.	Strangely, foe's vessel seems unaffected by powerful blast. However, every Round brings on a 1% cumulative probability that vessel explodes in a holocaustic display.

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
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21.1 FERRET — SMAC DISPLAY

SMAC Name: .... Ferret
Cost: 1,122,560
Mass: 50
Hits: 50
Maneuver Thrust: 18
Heads Up Display: .... +5
Electronic Warfare: .... +5
Screens: 0

PILOT Name: _____
Combat Pilot Bonus: _____
N-Space Pilot Bonus: _____
Heavy Energy Projector Bonus: _____

COMPUTER PROGRAMS

Tactics: .... +60
Predict: .... +58
Evade: .... +40

NOTES

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB
1x Mk.10 LASER		10	5	58	

INITIATIVE RECORD

Combat Pilot Bonus: _____
Tactics Program: 60
Maneuver Thrust: 18
BASE INITIATIVE #: _____

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
24	0	5	0	40	45

AUXILIARY SYSTEMS

Aux: .... None
Aux: .... None
Aux: .... None

DAMAGE RECORD

Current Hit Total: _____

System Bonus Reductions: _____

Systems Knocked Out: _____

25

21.2 FIRE BRAND — SMAC DISPLAY

SMAC Name: Fire Brand
Cost: 1,009,250
Mass: 100
Hits: 105
Maneuver Thrust: 13
Heads Up Display: +5
Electronic Warfare: +20
Screens: +10

PILOT Name:
Combat Pilot Bonus:
N-Space Pilot Bonus:
Heavy Energy Projector Bonus:

COMPUTER PROGRAMS
Tactics: +50
Predict: +45
Evade: +50

INITIATIVE RECORD
Combat Pilot Bonus:
Tactics Program: 50
Maneuver Thrust: 13
BASE INITIATIVE #:

AUXILIARY SYSTEMS
Aux: RIF
Aux: None
Aux: None

NOTES

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB
2 x Mk.10 LASER		10	5	45	

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
23	5	20	10	50	85

DAMAGE RECORD

Current Hit Total:

System Bonus Reductions:

Systems Knocked Out:

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
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COMBAT ROUND RECORD

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21.3 SPIRIT RIDER — SMAC DISPLAY

SMAC Name: .... Spirit Rider
Cost: 1,833,925
Mass: 125
Hits: 144
Maneuver Thrust: 15
Heads Up Display: .... +15
Electronic Warfare: .... +10
Screens: .... +10

PILOT Name:
Combat Pilot Bonus:
N-Space Pilot Bonus:
Heavy Energy Projector Bonus:
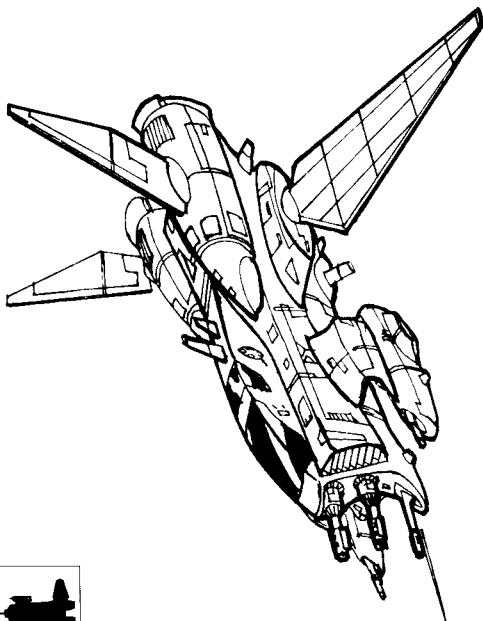
COMPUTER PROGRAMS

Tactics: .... +45
Predict: .... +50
Evade: .... +50

NOTES

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB
2 x Mk.10 BLAST		10	15	50	

INITIATIVE RECORD

Combat Pilot Bonus:
Tactics Program: 45
Maneuver Thrust: 15
BASE INITIATIVE #:

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
24	15	10	10	50	85

AUXILIARY SYSTEMS

Aux: .... RIF
Aux: .... Microfreq Rig
Aux: .... Computer

DAMAGE RECORD

Current Hit Total:

System Bonus Reductions:

Systems Knocked Out:

21.4 INTRUDER — SMAC DISPLAY

SMAC Name: .... Intruder
Cost: 1,431,025
Mass: 150
Hits: 150
Maneuver Thrust: 19
Heads Up Display: 0
Electronic Warfare: .... +5
Screens: .... +5

PILOT Name: ___
Combat Pilot Bonus: ___
N-Space Pilot Bonus: ___
Heavy Energy Projector Bonus: ___
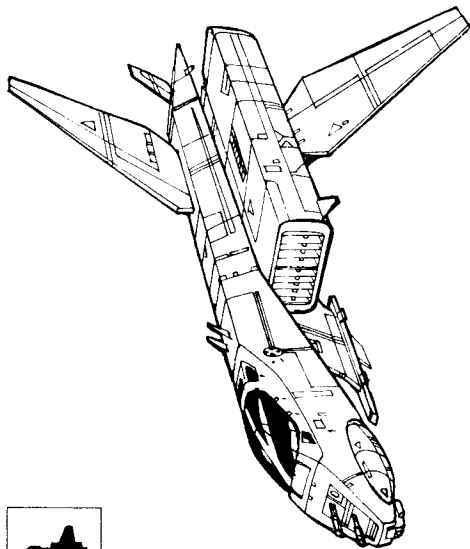
COMPUTER PROGRAMS
Tactics: .... +68
Predict: .... +60
Evade: .... +50

INITIATIVE RECORD
Combat Pilot Bonus: ___
Tactics Program: 68
Maneuver Thrust: 19
BASE INITIATIVE #: ___

AUXILIARY SYSTEMS
Aux: .... RIF
Aux: .... RIF
Aux: .... None

NOTES

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB
1 x Mk.10 LASER		10	0	60	___
1 x Mk.6 BLAST		6	0	60	___

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
22	0	5	5	50	60

DAMAGE RECORD

Current Hit Total: ___

System Bonus Reductions: ___

Systems Knocked Out: ___

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
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21.5 THUNDER BIRD — SMAC DISPLAY

SMAC Name:	Thunder Bird
Cost:	1,584,085
Mass:	200
Hits:	210
Maneuver Thrust:	16
Heads Up Display:	+15
Electronic Warfare:	+50
Screens:	+10

PILOT Name:	
Combat Pilot Bonus:	
N-Space Pilot Bonus:	
Heavy Energy Projector Bonus:	
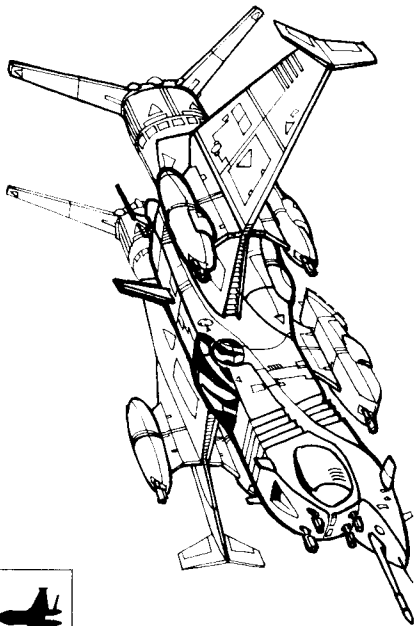
COMPUTER PROGRAMS

Tactics:	+60
Predict:	+60
Evade:	+60

INITIATIVE RECORD

Combat Pilot Bonus:	
Tactics Program:	60
Maneuver Thrust:	16
BASE INITIATIVE #:	

AUXILIARY SYSTEMS

Aux:	None
Aux:	None
Aux:	None

NOTES

OFFENSIVE RECORD

	H.E.P. Bonus	Cannon Mk. #	H.U.D. Bonus	Predict Bonus	BASE OB
Cannon					
4 x Mk.10 LASER		10	15	60	

DEFENSIVE RECORD

Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
5	50	10	60	125

Construction Armor Type		
24		

DAMAGE RECORD

Current Hit Total:

System Bonus Reductions:

Systems Knocked Out:

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
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21.6 NIGHT HAWK — SMAC DISPLAY
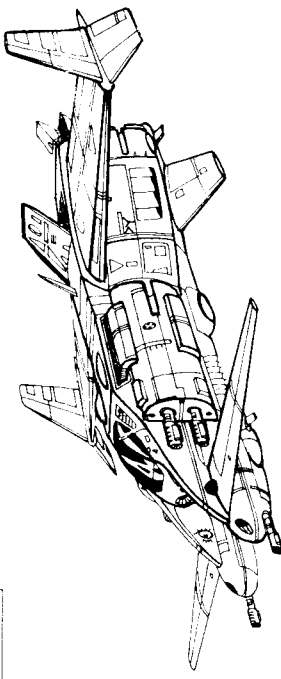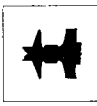
SMAC Name: Night Hawk
Cost: 1,737,855
Mass: 300
Hits: 360
Maneuver Thrust: 15
Heads Up Display: +15/+15
Electronic Warfare: +45
Screens: +5

PILOT Name: ___
Combat Pilot Bonus: ___
N-Space Pilot Bonus: ___
Heavy Energy Projector Bonus: ___

COMPUTER PROGRAMS

Tactics: +54
Predict: +54
Evade: +54

INITIATIVE RECORD

Combat Pilot Bonus: ___
Tactics Program: 54
Maneuver Thrust: 15
BASE INITIATIVE #: ___

AUXILIARY SYSTEMS

Aux: None
Aux: None
Aux: None

NOTES

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB
6 x Mk.10 BLAST	—	10	15	54	—
2 x Mk.10 LASER	—	10	15	54	—

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
24	20	45	5	54	124

DAMAGE RECORD

Current Hit Total: ___

System Bonus Reductions: ___

Systems Knocked Out: ___

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
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14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

COMBAT ROUND RECORD

Round #	MTs Available	Combat Pilot OB/DB	Initiative Number	Initiative Ranking	Total OB	Total DB
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

21.7 SMAC DISPLAY

SMAC Name: _____
Cost: _____
Mass: _____
Hits: _____
Maneuver Thrust: _____
Heads Up Display: _____
Electronic Warfare: _____
Screens: _____

PILOT Name: _____
Combat Pilot Bonus: _____
N-Space Pilot Bonus: _____
Heavy Energy Projector Bonus: _____

COMPUTER PROGRAMS

Tactics: _____
Predict: _____
Evade: _____

NOTES

INITIATIVE RECORD

Combat Pilot Bonus: _____
Tactics Program: _____
Maneuver Thrust: _____
BASE INITIATIVE #: _____

OFFENSIVE RECORD

Cannon	H.E.P. Bonus	Cannon Mk.#	H.U.D. Bonus	Predict Bonus	BASE OB

AUXILIARY SYSTEMS

Aux: _____
Aux: _____
Aux: _____

DEFENSIVE RECORD

Construction Armor Type	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB

DAMAGE RECORD

Current Hit Total: _____

System Bonus Reductions: _____

Systems Knocked Out: _____

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22.0 STARCRAFT DISPLAY — Small Vessel

Notes:

SYSTEM AND PROGRAM VALUE RECORD

Name: _____
Class: _____
Cost: _____
Mass: _____

MTs: _____
MSA: _____
CAT: _____
Hits: _____

Sensor: _____
Screens: _____
EW: _____
Rad. Shield: _____

Tactics: _____
Predict: _____
Evade: _____
Tractor Beam: _____

PERSONNEL RECORD

	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Proj, Gunnery Bonus	Missile Bonus	Hit Points
Pilot						
Gunner 1						
Gunner 2						
Gunner 3						

OFFENSIVE RECORD

	Gunner Bonus	Cannon Mk.#	Multi FM	H.U.D. Bonus	Predict Bonus	BASE OB
Weapon Mount / Location						

MISSILE RECORD

PAYLOAD RECORD

DEFENSIVE RECORD

	Armor Quality Bonus	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB
Construction Armor Type						

DAMAGE RECORD

Current Hit Total: _____

Concussion Hit Thresholds (Mods):

75% Hits = _____ (-10)
50% Hits = _____ (-20)
25% Hits = _____ (-30)

System Bonus Reductions:

INITIATIVE RECORD

Combat Pilot Bonus: _____
Tactics Program: _____
Maneuver Thrust: _____
BASE INITIATIVE #: _____

AUXILIARY SYSTEMS RECORD

Aux: _____   Aux: _____
Aux: _____   Aux: _____

COMBAT ROUND RECORD

Rnd #	Initial Drift	Combat Pilot OB/DB	Initi- ative #	Final Momen- tum	Total OB 1	Total OB 2	Total OB 3	Total OB 4	Total DB
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

Systems Knocked Out:

23.0 STARCRAFT DISPLAY — Medium Vessel

SYSTEM AND PROGRAM VALUE RECORD

Notes: ___

Name: ___
Class: ___
Cost: ___
Mass: ___

MTs: ___
MSA: ___
CAT: ___
Hits: ___

Sensor: ___
Screens: ___
EW: ___
Rad. Shield: ___

Tactics: ___
Predict: ___
Evade: ___
Tractor Beam: ___

PERSONNEL RECORD

	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Proj. Gunnery Bonus	Missile Bonus	Hit Points
Pilot						
Gunner 1						
Gunner 2						
Gunner 3						
Gunner 4						
Gunner 5						
Gunner 6						

OFFENSIVE RECORD

Weapon Mount / Location	Gunner Bonus	Cannon Mk. #	Multi FM	H.U.D. Bonus	Predict Bonus	BASE OB

MISSILE RECORD

DEFENSIVE RECORD

PAYLOAD RECORD

Construction Armor Type	Armor Quality Bonus	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB

AUXILIARY SYSTEMS RECORD

Aux: ___	Aux: ___	Aux: ___
Aux: ___	Aux: ___	Aux: ___
Aux: ___	Aux: ___	Aux: ___

COMBAT ROUND RECORD

Rnd #	Initial Drift	Combat Pilot OB/DB	Initi- ative #	Final Momen- tum	Total OB 1	Total OB 2	Total OB 3	Total OB 4	Total DB
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

DAMAGE RECORD

Current Hit Total: ___

Concussion Hit Thresholds (Mods):
75% Hits = ___ (-10)
50% Hits = ___ (-20)
25% Hits = ___ (-30)

Crew Casualty Modifiers:

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
-5	-10	-15	-20	-25	-30	-35	-40	-45	D

System Bonus Reductions:

Systems Knocked Out:

INITIATIVE RECORD

Combat Pilot Bonus: ___
Tactics Program: ___
Maneuver Thrust: ___
BASE INITIATIVE #: ___

24.0 STARCRAFT DISPLAY — Large Vessel

Notes:

AUXILIARY SYSTEMS RECORD

Aux:	Aux:
Aux:	Aux:
Aux:	Aux:
Aux:	Aux:
Aux:	Aux:
Aux:	Aux:

DAMAGE RECORD

Current Hit Total:

Concussion Hit Thresholds (Mods):

75% Hits = _____ (-10)

50% Hits = _____ (-20)

25% Hits = _____ (-30)

Crew Casualty Modifiers:

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
-5	-10	-15	-20	-25	-30	-35	-40	-45	D

System Bonus Reductions:

Systems Knocked Out:

SYSTEM AND PROGRAM VALUE RECORD

Name:	Sensor:	Tactics:
Class:	MSA:	Predict:
Cost:	CAT:	Evade:
Mass:	Hits:	Other:
	EW:	
	Rad. Shield:	

MTs: _____

Tractor Beams:

Fighters / Shuttles:

Troops:

PERSONNEL RECORD

	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Proj. Gunnery Bonus	Missile Bonus	Hit Points
Pilot Average						
Gunner Average						

INITIATIVE RECORD

Combat Pilot Bonus: _____

Tactics Program: _____

Maneuver Thrust: _____

BASE INITIATIVE #: _____

Notes:

COMBAT ROUND RECORD

Rnd #	Initial Drift	Combat Pilot OB/DB	Initi- ative #	Final Momen- tum	Total OB 1	Total OB 2	Total OB 3	Total OB 4	Total DB
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

24.0 STARCRAFT DISPLAY — Large Vessel

Notes:

OFFENSIVE RECORD

Weapon Mount / Location	Gunner Bonus	Cannon Mk.#	Multi FM	H.U.D. Bonus	Predict Bonus	BASE OB

MISSILE RECORD

PAYLOAD RECORD

DEFENSIVE RECORD

Construction Armor Type	Armor Quality Bonus	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB

25.0 STARCRAFT DISPLAY — Super Large Vessel

AUXILIARY SYSTEMS RECORD

Notes:

Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:
Aux:	Aux:	Aux:

SYSTEM AND PROGRAM VALUE RECORD

Name: _____

Class: _____

Cost: _____

Mass: _____

MTs: _____   Sensor: _____   Tactics: _____

MSA: _____   Screens: _____   Predict: _____

CAT: _____   EW: _____   Evade: _____

Hits: _____   Rad. Shield: _____   Other: _____

Tractor Beams:

Fighters / Shuttles:

DAMAGE RECORD

Current Hit Total:

Concussion Hit Thresholds (Mods):

75% Hits = _____ (-10)

50% Hits = _____ (-20)

25% Hits = _____ (-30)

Crew Casualty Modifiers:

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
-5	-10	-15	-20	-25	-30	-35	-40	-45	D

System Bonus Reductions:

Systems Knocked Out:

PERSONNEL RECORD

	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Proj. Gunnery Bonus	Missile Bonus	Hit Points
Troop Type A:						
Troop Type B:						
Troop Type C:						
Troop Type D:						
Pilot Average						
Gunner Average						

INITIATIVE RECORD

Combat Pilot Bonus: _____

Tactics Program: _____

Maneuver Thrust: _____

BASE INITIATIVE #: _____

Notes:

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25.0 STARCRAFT DISPLAY — Super Large Vessel

COMBAT ROUND RECORD

Rnd #	Initial Drift	Combat Pilot OB/DB	Initi- ative #	Final Momen- tum	Total OB 1	Total OB 2	Total OB 3	Total OB 4	Total DB
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

MISSILE RECORD

PAYLOAD RECORD

Notes:

OFFENSIVE RECORD

Weapon Mount / Location	Gunner Bonus	Cannon Mk. #	Multi FM	H.U.D. Bonus	Predict Bonus	BASE OB

DEFENSIVE RECORD

Construction Armor Type	Armor Quality Bonus	Armor Belt Bonus	E.W. Bonus	Screens Bonus	Evade Bonus	BASE DB

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	Vol. Left	

Step 1: Mass   [m1]:

Step 2: Volume   [v2]:

Step 3: Hull   [v3]:   [c3]:

     CAT:_____   Superior Alloy (DB):_____
                     Superior Alloy (volume):_____

Step 4: Armor Belt   [c4]:

     DB:_____   Hit Points:_____

Step 5: Sublight Drive   [v5]:   [c5]:

     Rating:_____   Maximum Sublight Acceleration:_____
                  Maneuvering Thrust:_____

Step 6: Translight Drive   [v6]:   [c6]:

     Rating:_____   Translight Displacement:_____

Step 7: RIF Generator   [v7]:   [c7]:

Step 8: Auto Cannons   [v8]:   [c8]:

     Mechanism(s) Mk.# and Mount:_____
     Magazine(s):_____
     Mechanism(s) Mk.# and Mount:_____
     Magazine(s):_____

Step 9: Energy Cannons   [v9]:   [c9]:

     Mechanism(s) Mk.# and Mount:_____
     Mechanism(s) Mk.# and Mount:_____
     Mechanism(s) Mk.# and Mount:_____
     Mechanism(s) Mk.# and Mount:_____
     Mechanism(s) Mk.# and Mount:_____
     Mechanism(s) Mk.# and Mount:_____

Step 10: Missile Launchers   [v10]:   [c10]:

     Mk.# and Launcher:_____   Magazine:_____
     Mk.# and Launcher:_____   Magazine:_____
     Mk.# and Launcher:_____   Magazine:_____
     Mk.# and Launcher:_____   Magazine:_____

Step 11: Heads Up Displays   [c11]:

     HUD:_____   HUD:_____   HUD:_____
     HUD:_____   HUD:_____   HUD:_____
     HUD:_____   HUD:_____   HUD:_____

Step 12: Payload Pallets   [v12]:   [c12]:

     Pallet Mk.#:_____   Pallet Mk.#:_____
     Pallet Mk.#:_____   Pallet Mk.#:_____
     Pallet Mk.#:_____   Pallet Mk.#:_____

Step 13: Tractor Beams   [v13]:   [c13]:

     Tractor Mk.#:_____   Tractor Mk.#:_____

Step 14: Microfreq Rig   [v14]:   [c14]:

     Microfreq Mk.#:_____

Step 15: Tight Beam Rig   [v15]:   [c15]:

     Tight Beam Mk.#:_____

Step 15: Tachyon Beam Dictor   [v16]:   [c16]:

     TBD Mk.#:_____

Step 17: Sensors   [v17]:   [c17]:

     Rating:_____   Sensor Bonus:_____
               Effective Range:_____

Step 18: Electronic Warfare   [v18]:   [c18]:

     Rating:_____   EW Bonus:_____

Step 19: Screen Generator   [v19]:   [c19]:

     Rating:_____   Screen Bonus:_____

Step 20: Fusion Reactor   [v20]:   [c20]:

     Rating:_____

Step 21: Reactor Fuel Storage   [v21]:   [c21]:

     Rating:_____   Operating Duration:_____

Step 22: Matter/Antimatter Fuel   [c22]:

     Andrium Units:_____

	Vol. Left

Step 23: Control Points
     Control Point #:_____

Step 24: Crew
     # of crewmembers:_____

Step 25: Main Computer   [v25]:   [c25]:

     Computer Mk.#:_____   Processing Units:_____
     Memory Units:_____   Reserve Units:_____

Step 26: Control Area   [v26]:   [c26]:

Step 27: Crew Quarters   [v27]:   [c27]:

Step 28: Passenger Accommodations
                         [v28]:   [c28]:

     First Class Stateroom occupants:_____
     Standard Stateroom occupants:_____
     Low/Military Stateroom occupants:_____
     Cryogenic Berth occupants:_____
     Seating occupants:_____

Step 29: Life Support   [v29]:   [c29]:

Step 30: Recreational Facilities   [v30]:   [c30]:

Step 31: Dispensary   [v31]:   [c31]:

Step 32: Sick Bay   [v32]:   [c32]:

     Patient capacity:_____

Step 33: Labs   [v33]:   [c33]:

     type and bonus:_____   type and bonus:_____
     type and bonus:_____   type and bonus:_____
     type and bonus:_____   type and bonus:_____

Step 34: Workshops   [v34]:   [c34]:

     Workshop #1 CIP available:_____
     Workshop #2 CIP available:_____

Step 35: Security Stations   [v35]:   [c35]:

Step 36: Fighter Bays   [v36]:   [c36]:

     Number and Volume of Fighters:_____

Step 37: Shuttle/Vehicle Bays   [v37]:   [c37]:

     Number and Volume of Shuttles/Vehicles:_____

Step 38: Cargo Hold   [v38]:   [c38]:

Step 39: Atmospheric Streamlining   [c39]:

Step 40: Landing Gear   [v40]:   [c40]:

Step 41: Radiation Shielding   [c41]:

     Rating:_____   Radiation Sheilding Bonus:_____

Step 42: Auxiliary Systems   [v42]:   [c42]:

     Volume available:_____

AUX _____	[v42a]:_____	[c42a]:_____
AUX _____	[v42b]:_____	[c42b]:_____
AUX _____	[v42c]:_____	[c42c]:_____
AUX _____	[v42d]:_____	[c42d]:_____
AUX _____	[v42e]:_____	[c42e]:_____
AUX _____	[v42f]:_____	[c42f]:_____
AUX _____	[v42g]:_____	[c42g]:_____
AUX _____	[v42h]:_____	[c42h]:_____
AUX _____	[v42i]:_____	[c42i]:_____
AUX _____	[v42j]:_____	[c42j]:_____
AUX _____	[v42k]:_____	[c42k]:_____
AUX _____	[v42l]:_____	[c42l]:_____

Remainder to Cargo Bay: [+v38]:   [+c38]:

Cost of vessel without Auto Cannon ammunition, Missiles, Payloads, Workshop CIP expenditures, or Computer Programs:

27.0 COMPUTER PROGRAM INVENTORY RECORD					
	RUNNING SIZE		STORAGE SIZE		
Program	Processing Units	Memory Units	Memory Units	Reserve Units	Cost (Elmonits)

28.0 ADVANCED GAME ATTITUDE / ALTITUDE INDICATOR

Unit Identification:

ATTITUDE INDICATOR

Up

Reverse — Forward
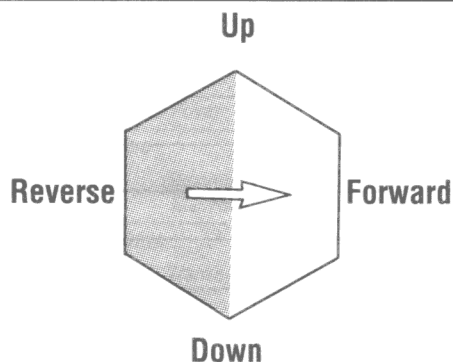
Down

Point arrows up for Positive Altitudes.

Point arrows down for Negative Altitudes.

LAST ANGLE MOVE

Up	Ahead	Down

NOTES

ALTIMETER	
90	9
80	8
70	7
60	6
50	5
40	4
30	3
20	2
10	1
00	0

28.0 ADVANCED GAME ATTITUDE / ALTITUDE INDICATOR
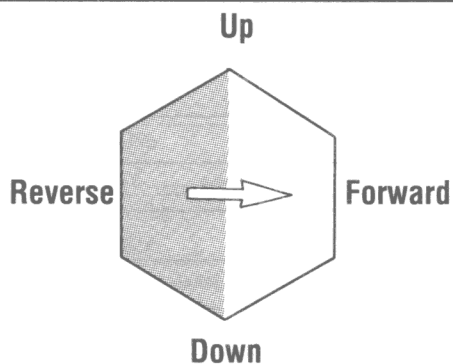
Unit Identification:

ATTITUDE INDICATOR

Up

Reverse — Forward

Down

Point arrows up for Positive Altitudes.

Point arrows down for Negative Altitudes.

LAST ANGLE MOVE

Up	Ahead	Down

NOTES

ALTIMETER	
90	9
80	8
70	7
60	6
50	5
40	4
30	3
20	2
10	1
00	0

29.0 INITIATIVE RANKING SHEET

For each Round, list starcraft in accordance with their Initiative Number; low first, high last. This Initiative Ranking will therefore show the order of movement. Reverse through the sequence to determine the order of firing.

	1	2	3	4	5	6	7	8	9	10
Round 1										
Round 2										
Round 3										
Round 4										
Round 5										
Round 6										
Round 7										
Round 8										
Round 9										
Rnd 10										
Rnd 11										
Rnd 12										
Rnd 13										
Rnd 14										
Rnd 15										
Rnd 16										
Rnd 17										
Rnd 18										
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Rnd 26										
Rnd 27										
Rnd 28										
Rnd 29										
Rnd 30										
Rnd 31										
Rnd 32										
Rnd 33										
Rnd 34										
Rnd 35										
Rnd 36										
Rnd 37										

THE VEHICULAR MANEUVER/ASTROGATION CHART

	Driving/Marine Pilot	Orbital/Atmospheric Pilot	N-Space Pilot	Hyperspace Pilot	N-Space Astrogation	Hyperspace Astrogation	Damaged
-201	Total disaster. You flip your vehicle (direction and severity of impact dependent on vehicle and situation). Most likely it is badly damaged as you might well be.	Unbelievably inept attempt at controlling the ship effectively deactivates its propulsion system and computer safety overrides. Only a 100% successful Absurd maneuver by somebody on board can save you from a fiery death as the craft plummets to earth. Roll 1-4 (GM discretion) "E" Blast (or other appropriate vehicle crit, dependant on craft size) Criticals on the ship when it hits. Sorry.	Incredibly moronic maneuver. You try to engage the course plot before it is laid in and the entire Astrogation system shorts out. Very Severe damage, and the ship hurtles in a random direction at full sublight acceleration until the Astrogation console is repaired or overridden.	In a move of unparalleled, panicked stupidity, you believe that the hyperspace engine is about to overload, and jettison the translight fuel. Roll for % of way into journey you do this. It's a long road home at sublight...	Absolutely unbelievable. You short-circuit the Astrogation console, and in the process erase every Astrogation Program, star map, and pre-set course in the database. All astrogation is Absurd until the console its repaired, and Very Hard after that due to lack of computer aid. Have a nice orbit decay.	(100%) Say your prayers. Your course sends the ship right through a solar system. Only if the pilot rolls a total of above 200 does he/she/it notice the glaring error before entering Hyperspace. If not, roll % of the way through the journey you hit the system, at which point the ship takes 2-20 random Pierce Critical hits from debris before the computer drops you out of Hyper.	And you thought it couldn't get worse. Several key structural members buckle; the ship takes 10 random criticals. All drive controls are Severe malfunctions. All drive controls short out: nearly every compartment is leaking air. Your ship is dead in space. don't even bother to try the maneuver.
(-200) — (-151)	You lose control of your vehicle and it veers wildly. If anything is within 50m (in a direction reasonable considering current craft motion) you hit it before you can recover. You are stunned 3 Rounds if not dead sooner)	Your clumsy fingers Severely Damage the main Pilot console (it is useless until repaired). 50% chance the ship continues in the maneuver it was previously in; 50% it makes a totally random maneuver	In an unclever move, you override the safety systems and engage the wrong drive. Roll a new maneuver on the Hyperspace column, using of course the Insane modification if you are in-system. (If the ship is not equipped with Hyperdrive, you simply tried to abusively accelerate the Sublight Drive, delivering Severe damage to it and two random malfunctions)	Your mind in a haze, you misinterpret the Astrogation plot and shunt the ship off in a random direction. Roll an Absurd maneuver to drop safely out of hyperspace. For every 10 less than 100% success, the ship receives a 'Pierce' critical strike (random "A" to "E" severity, 20% chance of each) from space debris. Assuming you survive that, the Astrogator must roll an Absurd maneuver to navigate you out of wherever you are	(100%) You think yourself very clever using a nearby gravity well to slingshot the ship and save energy. Too bad you miscalculated. 50% chance you go too low. Roll an "E" Blast critical on the ship as it hits planetary atmosphere, in addition to 3 random malfunctions due to stress. 50% chance you go too high, hurtling at high speed across the system. The Pilot must complete a Very Hard maneuver to stop the ship, and every round he is attempting to do so 1-2 random malfunctions occur due to structural strain.	The Astrogation console bypasses like a Christmas tree: obviously you have done something seriously wrong, and the computer confirms it: the control panel is Severely damaged, and the computer is Moderately so. There is a 25% chance you have destroyed the appropriate Astrogation program in the process	A gut-wrenching metallic shriek accompanies your attempt to maneuver. Whatever maneuvering system you are attempting to use (thrusters, gravitics, Sublight drives, Translight drive) overloads and is Very Severely damaged and at -90.
(-150) — (-101)	Your badly executed attempt causes the vehicle to weave dangerously 1-10 meters to one side. Good luck.	Oops. You manhandle the controls and the craft lurches in a random direction (1000 meters if cruising; 50 meters if landing/takeoff) before you get a grip. Hopefully there was nothing in the way...	Your spastic piloting causes the ship to lurch erratically. Everyone on board and not strapped in takes an "A" Impact critical. Those who are buckled in take 1-10 hits and must resist vs. nausea. One Routine random malfunction also occurs.	Clumsy execution. You miscalculate the Matter/Antimatter fuel mix and cause Very Severe damage to the Hyperspace drive. It is inoperative and you are red-faced.	(100%) In a druggee-like maneuver you plot a course in a bizarre direction, at the end of which (10 hours later, if no one makes a successful Very Hard Perception to notice your curious route) you are lost in space, despite any Astrogation aides. Complete a Hard maneuver just to figure out where you are.	(100%) You fail to notice a gravity-well along your course 1-100% of the way along the trip, the ship passes through it. 1-10 random malfunctions if the Star Drive is functional. You continue on, but your course is altered by 10-100 in a random direction. Calculate your new destination. If you do drop out of Hyper, you must plot a new course. Very Hard, due to the uncertainty of your location.	Sparks fly on the bridge as the already strained control systems give up. Pilot and Astrogation controls are Extremely Severely damaged and useless. Computer Astrogation program's burned out (irretrievable). In addition, 2 random Severe malfunctions occur. No progress on your attempted maneuver.
(-100) — (-51)	Cruel abuse of the machine causes Moderate damage to the appropriate system (brakes, steering, tires, hydrotrols, etc.) Move is 50%- successful and system is at -50 until repaired	Insensitive handling of the ship triggers 1-4 Routine malfunctions. Roll on appropriate table.	Really weak execution. Sloppy drive engagement overloads the cooling systems. Moderate damage to Sublight Drive (Rating cut in half until repaired).	A poorly orchestrated adjustment to the course causes 5 random malfunctions due to stress on the ship before the computer overrides you and drops the ship out of Hyperspace. Navigator must re-plot a course (Medium maneuver) and you must re-roll to resume your journey.	(100%) In a slovenly attempt to cut corners, you plot a course through a planetary ring/asteroid field. Roll 1-5 "B" Pierce criticals against the ship before the pilot can roll a Hard maneuver to get you out. For every round before he is 100% successful, roll another "B" Pierce crit.	(100%) You miscalculate. Fortunately, there is nothing dangerous in the way. nevertheless, you end up at a spot exactly 10 LY (random direction) off-course from your intended destination. Plot a new course (Very Hard).	The ship takes a "C" Blast critical from strain, and 3 random Severe malfunctions. Attempt to complete your maneuver now at -100
(-50) — (-26)	Panicked confusion on your part causes you to decelerate to half speed (unless that was the intended move, in which you accelerate to half again faster).	Sloppy execution. If landing/takeoff you have Moderately damaged the landing gear. If cruising, Routine damage to whatever mechanisms maneuver the craft through air/space (gravitics, attitude jets or aerfoil surfaces). They are functional but at -20 until repaired.	You fail to compensate for all gravity field effects; you achieve nothing and the course must be re-plotted at -20 due to your more complex position. Your next maneuver is two difficulty levels higher.	The computer rejects your attempt to enter/leave Hyperspace as dangerous. It requires 12 Rounds (2 Turns) to unlock the controls and try again.	You develop a splitting headache at just the idea of plotting an inter-planetary course. Retire to your cabin for at least an hour before trying again.	Apparently you read the star-map wrong; you spend 10 Turns (60 Rounds) carefully plotting the course only to discover that you have done it all wrong. Try again at -20 (you're discouraged) after the appropriate delay. Hope you're not in a big hurry.	The main reactor malfunctions under the strain (if it hasn't already); the problem is Severe. You can either shut it down now (aborting the maneuver attempt) or proceed with a -100 modifier. If you press on, it will function for 1 hour, then fail completely. Extremely Severely damaged.
(-25) — 0	You have a lapse and fail to attempt the maneuver, instead continuing as you were.	Your mind on other things, you fail to even attempt the maneuver. (0% movement)	You fail to take any action (0% movement)	For reasons unclear even to you, you decide not to attempt to enter/leave Hyper this Turn.	You stare blankly at the luminous plotter screen, watching the pretty patterns while you accomplish nothing for 6 full Rounds.	(100%) Well, you lay in the course and take only a minute to do it, but the plotted route takes twice the time it normally would. Unfortunately, nobody figures this out until far too late. Have a nice trip.	You are forced to override the control system overload safety features. Roll your desired maneuver at -50. If you are less than 100% successful, the system shorts out before you complete the maneuver control system and console are Very Severely damaged.

Roll							
01 — 10	10%	10% Slowly but surely.	10% Snails move faster.	10% A slow start.	10% So Rome wasn't built in a day.	10% You'll get it done eventually.	Amidst 5 random malfunctions you may attempt your maneuver at -70
11 — 20	30%	30%	30%	30%	30%	30%	The ship shudders ominously and suffers 2 Moderate random malfunctions. Your maneuver is at -50.
21 — 30	50%	50%	50%	50%	50%	50% It might go quicker if you didn't spend so much time playing "Space Commander" with the console.	Structural strain causes hull breaches in one random crew cabin, as well as one gun mount and the sublight engine room. Bulkhead portals seal; if in space, implement appropriate Vacuum crits to affected personnel. Roll your maneuver at -50
31 — 45	70%	70%	70%	70%	70%	70%	The ship fights back. The manual bypassing necessary puts you at -70.
46 — 55	90%	90%	90%	90%	90%	90%	Hull breach in the cargo bay. 1 random Severe malfunction. Maneuver is at -40.
56 — 65	100% You succeed (barely).	100% A complete success	100% A complete, if uninspired, success	100% No use rushing things	100% No more, no less.	100%	The computer link to your console (if not already inoperative) is severed and you must act without it. Apply a -50 difficulty modifier.
66 — 85	100%	100%	100%	100%	100%	100%	The ship lurches; all not strapped in suffer a "B" severity Impact critical as you attempt your maneuver at -50. +300 Hits to the ship.
86 — 105	110% You have time to sigh with relief.	110%	110%	110%	110% Pilot gets 10% bonus on his first piloting roll.	110% Your skilled astrogation gives the pilot a +10 to his roll.	You push her to the brink. 3 random Moderate malfunctions; your repair rolls are at -40. The ship takes 100 Hits
106 — 125	110%	110%	110%	110%	110%	110% The whole crew, impressed with your skill, adds 10 to their next roll	Your engineer holds the ship together with a prayer and electro-paperclips. Make your roll at -30.
126 — 145	120%	120%	120%	120%	120%	120% Well done.	Make this maneuver with no modifiers, but whatever drive system employed is Severely damaged afterward.
146 — 165	120%	120%	120% Crewmembers add 20 to rolls for next 3 Rounds.	120%	120% Crewmembers add 20 to rolls for next 3 Rounds	120%	Your attempt is at -30; the ship suffers 50 Hits
166 — 185	130%	130%	130%	130%	130%	130%	The crippled craft only has one Moderate malfunction while you attempt this maneuver at -20.
186 — 200	150%	150% Well done.	150% Well done.	150% Apparently, even the ship was inspired.	150% It takes you but two-thirds the normal time.	150% After but two-thirds the normal time the course is ready	You attempt the maneuver at no subtraction
201 — 225	150% Great move. Add 10 to all crewmates' rolls for the next 3 Rounds.	150% Skillfully executed. Your friends are impressed. You get to add 30 to your next related roll.	150% Your allies think you're running a clinic; all shipmates get to add 20 to all rolls for the next 3 Rounds.	150% You urge every joule of energy possible from the ship. Add 20 to your next Hyperspace Pilot roll.	200% Only half the normal time and the course is plotted.	200% It takes you but half the regular time. Truly a whiz.	Grace under pressure: you actually recieve a +30 bonus to your maneuver, though the ship suffers 2 random light malfunctions.
226 — 175	200% Artful maneuver displays your mastery of the vehicle. Add 20 to all friendly rolls for the next 4 Rounds.	200% Superbly done. You have half the round left to act, and the adrenalin rush lets you do it with speed (one full Round of activity).	200% You showed them! Any and all foes must subtract 50 from their rolls for the next 2 Rounds as they gape at your artful moves. Miller time.	200% Add 50 to your next Hyperspace Pilot roll.	400% In a flash you lay in the correct course.	300% With flying fingers and agile brain you lay in the course in only a third the normal time.	A swift kick to the console corrects one random malfunction. You may attempt the maneuver at no (additional) subtraction
276+	200% Brilliant move. Your intuitive ability earns you a free 'hobby skill level in piloting this type of vehicle. Your crewmates are inspired and add 30 to all rolls for the next 6 Rounds.	200% Stunning move — literally: any non-friendly observers are stunned for 3 Rounds.	200% Adrenalin (or whatever you're on) is a wonderful thing. You and your shipmates get to add 30 to all rolls for the next six Rounds, and you have the second half of this one to act.	200% Zap! If just entering or leaving Hyperspace, any non-friendly observers are surprised and stunned for 3 Rounds	600% You barely need the computer's help: one sixth the usual time and it is done. The pilot may attempt to implement the course this Turn if he is alert and willing to subtract 10 from his roll	600% Almost too fast for the computer, you have the course ready in but one round. Your intuitive skill gives you a free 'hobby skill level in Hyperspace Astrogation.	Truly amazing. You need not even roll the maneuver. It succeeds, and any random two malfunctions (not damage) are miraculously repaired

Name _____ CAT _____ Sub. Drive Rating ____ Sensor Rating _____ Screen Rating _____
Class _____ Armor Quality ___ MSA _____ Sensor Bonus _____ Screen Bonus _____
Cost _____ Armor Belt _____ MTs _____ EW Rating _____ Rad. Shield Rating _____
Mass _____ Hits _____ Trans. Drive Rating___ EW Bonus _____ Rad. Shield Bonus _____

Armament/Mount/Location/HUD:

Payload Pallets:
Tractor Beams:

Tactics _____ Microfreq _____ Reactor Rating _____ Control Points _____ Cargo _____
Predict _____ Tight Beam _____ Duration _____ Crew _____ Streamlined _____
Evade _____ TBD _____ Andrium _____ Computer _____ Landing Gear _____

Fighter Bays:
Shuttle/Vehicle Bays:

Auxiliary Systems: Notes:

Name _____ CAT _____ Sub. Drive Rating ____ Sensor Rating _____ Screen Rating _____
Class _____ Armor Quality ___ MSA _____ Sensor Bonus _____ Screen Bonus _____
Cost _____ Armor Belt _____ MTs _____ EW Rating _____ Rad. Shield Rating _____
Mass _____ Hits _____ Trans. Drive Rating___ EW Bonus _____ Rad. Shield Bonus _____

Armament/Mount/Location/HUD:

Payload Pallets:
Tractor Beams:

Tactics _____ Microfreq _____ Reactor Rating _____ Control Points _____ Cargo _____
Predict _____ Tight Beam _____ Duration _____ Crew _____ Streamlined _____
Evade _____ TBD _____ Andrium _____ Computer _____ Landing Gear _____

Fighter Bays:
Shuttle/Vehicle Bays:

Auxiliary Systems: Notes:

Name _____ CAT _____ Sub. Drive Rating ____ Sensor Rating _____ Screen Rating _____
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Armament/Mount/Location/HUD:

Payload Pallets:
Tractor Beams:

Tactics _____ Microfreq _____ Reactor Rating _____ Control Points _____ Cargo _____
Predict _____ Tight Beam _____ Duration _____ Crew _____ Streamlined _____
Evade _____ TBD _____ Andrium _____ Computer _____ Landing Gear _____

Fighter Bays:
Shuttle/Vehicle Bays:

Auxiliary Systems: Notes:

MULTIPLE FIRING MECHANISMS CHART

(Result is # of Firing Mechanisms that "Hit")

	# of Firing Mechanisms in the Weapon Mount									
Roll	2	3	4	5	6	7	8	9	10	11+
1	1	1	1	1	1	1	1	1	1	# x .1 *
2	1	1	1	1	2	2	2	2	2	# x .2 *
3	1	1	2	2	2	3	3	3	3	# x .3 *
4	1	2	2	2	3	3	4	4	4	# x .4 *
5	1	2	2	3	3	4	4	5	5	# x .5 *
6	2	2	3	3	4	5	5	5	6	# x .6 *
7	2	2	3	4	4	5	5	6	7	# x .7 *
8	2	3	3	4	5	6	6	7	8	# x .8 *
9	2	3	4	5	5	6	7	8	9	# x .9 *
10	2	3	4	5	6	7	8	9	10	#

* Round off.

NUCLEAR OR MATTER/ANTIMATTER BLAST RADII CHART

Mk.# of the Nuclear or M/A Warhead	1st Blast Radius	2nd Blast Radius	3rd Blast Radius	4th Blast Radius	5th Blast Radius
6-10	Target hex	1 km	2 km	4 km	8 km
11-20	1 km	2 km	4 km	10 km	20 km
21-30	2 km	4 km	8 km	25 km	50 km
31-40	4 km	8 km	16 km	50 km	100 km
41-50	8 km	16 km	32 km	100 km	500 km

MISSILE SALVO CHART

Number of Missiles Fired	Explosive Warhead Mk.# Threshold	Offensive Bonus Modification	Concussion Damage Multiplier
1	Mk.10	0	x1
2	Mk.10	+4	x1
3	Mk.10	+6	x1
4	Mk.10	+8	x1
5-9	Mk.10	+10	x2
Maximum Effective Limit Against Small Target			
10-19	Mk.10	+15	x3
20-29	Mk.20	+20	x4
Maximum Effective Limit Against Medium Target			
30-39	Mk.30	+30	x6
40-49	Mk.40	+40	x8
Maximum Effective Limit Against Large Target			
50+	Mk.50	+50	x10
Maximum Effective Limit Against Super Large Target			

TORPEDO CHART

Type	AT(DB)	EW	Hits	MTs	Offensive Bonus	Cost Multiplier
Standard	21(10)	10	1	12	Mk.# + 50	1.0
Armored	23(10)	10	5	12	Mk.# + 50	1.5
Express	21(10)	10	1	20	Mk.# + 50	2.0
Stealth	21(40)	40	1	10	Mk.# + 50	2.5
Supreme	22(40)	40	1	15	Mk.# + 50	3.0

PROJECTILE & ENERGY SALVO FIRE

The Combat Roll for Salvo Fire is calculated in the following manner:

Total Combat Roll =
A Combat Roll
+ Firer's Total OB: average Gunner bonuses for all the mounts firing
- Target's Total DB
+ 2 bonus for each FM involved in the attack
- Range Modifier
+ Deflection Modifier
+ Damage/Casualty Modifiers

# of Concussion Hits =
Concussion Hit result from the attack x (the number of FMs firing ÷ 2)

# of Criticals =
# of Weapon Mounts involved in the attack

MISSILES

To Lock-on to a selected target, make a
Modified Roll =
Open-ended Roll
+ Gunner's Missile bonus
+ firing vessel's EW value
- target's EW value
+ Damage/Casualty Modifiers

If the Modified Roll exceeds 100 (i.e., 101+) the Lock-on is *successful* and Missile(s) from that Gunner's launcher may be fired against that target this Round.

ATTACK RESOLUTION

• **Modified Roll** = Open-ended Roll
+ Gunner's Missile bonus + HUD
+ Mk.# of the Missile
+ OB Modifier due to Multiple Missiles
- target's DB (Not inc. EW or Evade)
+ Damage/Casualty Modifiers

TORPEDOES

A Torpedo is considered to be automatically Locked-on to its target, and will move towards that target.

ATTACK RESOLUTION

• **Modified Roll** = Open-ended Roll
+ Torpedo's OB
- target's DB (Not EW, Evade or Comb Plt)
• Using the appropriate attack table, the Modified Roll is cross-indexed with the target's CAT to determine the result.

PROJECTILE / ENERGY CANNON RANGE LIMITS

Energy Cannon Mk.#	Maximum Result (Mk.#) threshold based upon Range (range in hexes/km)							
	0-10	11-20	21-30	31-40	41-50	51-90	91-160	161-250
6-10	Mk.10	—	—	—	—	—	—	—
11-20	Mk.20	Mk.20	Mk.10	Mk.10	—	—	—	—
21-30	Mk.30	Mk.30	Mk.30	Mk.20	Mk.20	Mk.10	—	—
31-40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.30	Mk.20	Mk.10	—
41-50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.40	Mk.30	Mk.20

Projectile Cannon Mk.#	Maximum Result (Mk.#) threshold based upon Range (range in hexes/km)							
	0-10	11-20	21-30	31-40	41-50	51-90	91-160	161-250
6-10	Mk.10	—	—	—	—	—	—	—
11-20	Mk.20	Mk.20	Mk.20	Mk.20	—	—	—	—
21-30	Mk.30	Mk.30	Mk.30	Mk.30	Mk.30	Mk.30	—	—
31-40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	Mk.40	—
41-50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50	Mk.50

PROJECTILE/ENERGY FIRE: The Total Combat Roll

Total Combat Roll =
A Combat Roll
+ Firer's Total OB
- Target's Total DB
- Range Modifier
+ Deflection Modifier
+ Damage/Casualty Modifiers

DAMAGE MODIFIERS CHART

Concussion Hit Damage as % of Hit Total	Combat and Maneuver Roll Modifier *
74-100%	0
51-75%	-10
26-50%	-20
1-25%	-30
* Non-cumulative	

TARGETING RESTRICTIONS CHART

Proj. / Energy Cannon Mk.#	MT Limit for Small or Medium Sized Targets
6-10	No limit
11-20	10 or less MTs available
21-30	6 or less MTs available
31-40	3 or less MTs available
41-50	1 or less MTs available

PROJ / ENERGY CANNON RANGE MODIFIER CHART

Proj./ Energy Cannon Mk.#	Combat Roll Range Modifier per hex (km) to Target
6-10	5.0
11-20	2.0
21-30	1.0
31-40	0.5
41-50	0.2

INTERIOR FLAME CONTROL CHART

Flame Control Modified Roll	Reduction in Hits per Round caused by Interior Fire
01-100	-1 Hit/rnd
101-120	-2 Hits/rnd
121-140	-3 Hits/rnd
141-160	-4 Hits/rnd
161-180	-5 Hits/rnd
181-200	-7 Hits/rnd
201-250	-10 Hits/rnd
251+	-20 Hits/rnd

SUSTAINED FIRE CHART

Units of Auto Cannon Ammo Expended	Final Concussion Hit Damage Multiplier
2	x 2.00
3	x 2.50
4	x 3.00
5	x 3.50
6	x 4.00
7	x 4.25
8	x 4.50
9	x 4.75
10+	x 5.00

STANDARD GAME WEAPON MOUNTS AND COVERED ARCS

Weapon Mount location/orientation.

Vessel

Fixed Mount (60° Covered Arc)

Flexible Mount (120° Covered Arc)

Turret Mount (180° Covered Arc)

Note: *If a Turret Mount is on the Top/ Bottom of the craft, the Covered Arc is an all-around 360°*

DEFLECTION MODIFIER CHART

Target is in this Deflection Arc of the Attacker	Attacker is in this Deflection Arc of the Target				
	Forward	Front Quarter	Rear Quarter	Aft	Line Astern
Forward	0	**	0	+10	+20
Front Quarter	**	*	+10	0	0
Rear Quarter	0	+10	*	0	0
Aft	+10	0	*	0	N/A
Line Astern	+10	0	*	0	+10

* minus (Target's Momentum x 2) ** minus (Target's Momentum x 5)

DEFLECTION ARCS

Note: *A vessel's Location is a seperate Deflection Arc. Fire within a vessel's Location (i.e., a Range 0 attack), has a Deflection Modifier of zero (+0).*

LOADING UP

Item	Cost (Elmonits)
Auto Cannon ammunition	(Mk.# x 25) per Rnd of fire
Missiles	
Explosive Warhead	Mk.# x 1000
Nuclear Warhead	Mk.# x 10K
Payloads	
• Torpedos	
Explosive Warhead	Mk.# x 750
Nuclear Warhead	Mk.# x 7500
Matter/Antimatter	Mk.# x 1000K
• Mines	
Explosive Warhead	Mk.# x 500
Nuclear Warhead	Mk.# x 5K
Matter/Antimatter	Mk.# x 750K
• **Explosive Warhead Missile Packs**	
5-Pack	(Mk.# x 5K) + 6050
10-Pack	(Mk.# x 10K) + 6100
25-Pack	(Mk.# x 25K) + 6250
50-Pack	(Mk.# x 50K) + 6500
100-Pack	(Mk.# x 100K) + 7K
• Pods	
EW Pod	Mk.# x 2K
Sensor Pod	Mk.# x 1500
Recon Pod	Mk.# x 1K
Cargo Pod	Mk.# x 50
Workshop CIP	As per Workshop CIP limit
Andrium refueling	(# of Andrium Units) x 5K

STANDARD GAME PILOT GENERATION CHART

Roll	Combat Pilot Bonus	N-Space Pilot Bonus	H.E.P. Bonus	Projectile Gunnery Bonus	Missile Bonus	Total Hit Points
1	20	40	35	40	35	15
2	25	40	30	30	40	17
3	30	30	40	25	45	20
4	35	55	35	10	20	23
5	40	45	50	10	25	26
6	45	70	60	5	20	29
7	50	50	45	15	50	33
8	60	80	40	20	30	37
9	70	70	55	10	15	41
10	80	90	65	15	20	45

STANDARD GAME GUNNER GENERATION CHART

Roll	H.E.P Bonus	Projectile Gunnery Bonus	Missile Bonus	Total Hit Points
1	10	5	15	15
2	20	10	10	17
3	30	15	5	20
4	40	25	40	23
5	50	10	50	26
6	55	50	25	29
7	60	20	20	33
8	65	15	45	37
9	70	30	35	41
10	75	35	30	45

ASTEROID COLLISION CHART

Vessel's Acquired Momentum	Maximum Damage Threshold	Combat Roll OB
1	Mk.10	10
2	Mk.20	20
3	Mk.30	30
4	Mk.40	40
5	Mk.50	50
6	Mk.50 with x2 Concussion Hits	60
7	Mk.50 with x3 Concussion Hits	70
8	Mk.50 with x4 Concussion Hits	80
9	Mk.50 with x5 Concussion Hits	90
10+	Mk.50 with x6 Concussion Hits	100

STANDARD GAME SEQUENCE OF PLAY

1: Missile/Torpedo Launch Phase

2: Initiative Phase

3: Movement/Maneuver Phase

4: Projectile/Energy Fire Phase

5: Missile/Torpedo Results Phase

6: Final Orientation Phase

INITIATIVE

Initiative Number =

Open-ended Roll

+ Pilot's Combat Pilot bonus

+ computer's Tactics Program Bonus

+ vessel's Maneuver Thrust

+ Damage/Casualty Modifiers

MANEUVERS

Each Round, a starcraft may attempt to perform one, and only one, of the following maneuvers:

- Withhold MTs
- Disengage from battle
- Dodge detonating Explosive Torpedoes
- Engage one Tractor Beam
- Pursue a higher Initiative Ranked foe
- Launch from a carrier vessel
- Land on a carrier vessel
- Dock with another vessel/construct
- Grapple-to-board another vessel/ construct
- Ram
- Enter Hyperspace

FINAL ORIENTATION OPTIONS

- Regain control of an Out of Control vessel
- Repair Routine or Light Damage/Malfunction with automatic Damage Control system
- Extinguish an internal fire with Damage Control system
- Detect an unrevealed foe with Sensors and EW
- Use Sensors to gain information
- Reorient Screens
- Receive (process) and/or transmit one Microfreq communication
- Self destruct

EXPANDED SUMMARY: THE SEQUENCE OF PLAY

Missile/Torp. Launch Phase:

1) Each Missile Launcher Gunner selects a target within Launchers' covered arc and attempts a Lock-on.

2) Each Missile Launcher Gunner with a Lock-on declares if, and how many, Missiles are launched at target.

3) Torpedoes are discharged; place Torp markers on the Map.

Initiative Phase:

1) Each player splits his pilot's Combat Pilot bonus between OB and DB (see Section 2.5).

2) Each player determines his vessel's Initiative Number (IN) for the round (see Section 2.6).

Movement/Maneuver Phase:

1) Every vessel with "Acquired Momentum" must "Drift" (see Section 4.6).

2) The vessel with the lowest Initiative Number moves first, the vessel with the 2nd lowest IN moves, the vessel with the 3rd lowest IN moves, and so on until all of the vessels have moved. Moving Starcraft may attempt Maneuvers (see Section 4.7).

3) Each Torpedo moves immediately after its target moves.

4) Remove Torpedoes (i.e., they self-destruct) whose targets have disengaged **or** whose targets no longer lie within their "tracking sphere" (see Section 4.4).

Projectile/Energy Fire Phase:

1) In accordance with their vessel's Initiative Number (i.e., highest first, second highest next, etc.), each Pilot and Gunner may fire the Cannon(s) of one Weapon Mount each.

2) All Projectile/Energy fire from an attack is resolved and the damage applied immediately (i.e., before the next combatant fires).

Missile/Torp Results Phase:

1) Resolve all Missile attacks declared during the preceding Missile/Torpedo Launch Phase.

2) The attacks of all Torpedoes entering their target's hexes are then resolved.

Final Orientation Phase:

Each vessel may *attempt* one of the *Final Orientation Options* for every five Control Points (see Section 4.11).

BONUS LIMITS CHART
(For Combat Pilot, Tactics, Predict, and Evade)

Vessel's Present Maneuvering Thrust	Maximum Bonus Limit for Combat Pilot and Rated Programs
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	54
12	58
13	62
14	66
15	70
16	75
17	80
18	85
19+	100

OFFENSIVE BONUS

Below are listed the factors which are added together to derive the OB for any given Weapon Mount discharge:

1) The Gunner's (or Pilot's, if firing) Heavy Energy Projector **or** Projectile Gunnery bonus. * †

2) The Mk.# of the Firing Mechanism(s).

3) The multiple Firing Mechanism attack bonus (+2 per Cannon).

4) The HUD bonus. †

5) Computer's Predict Program bonus. §
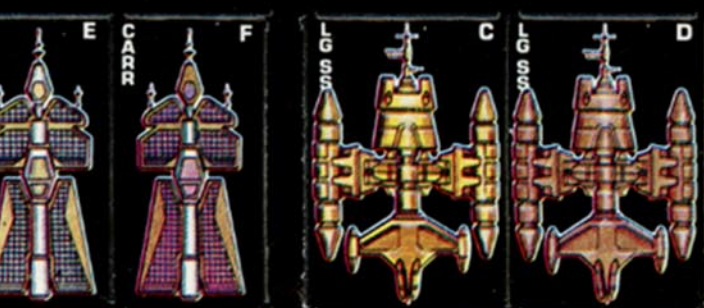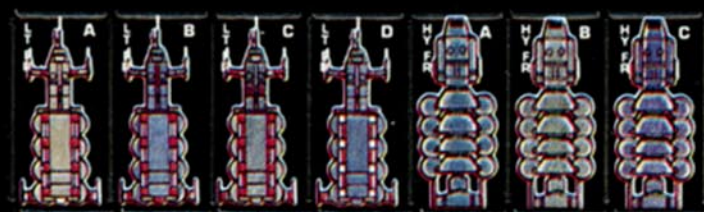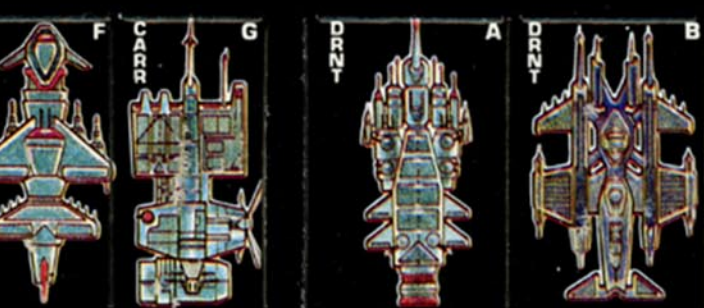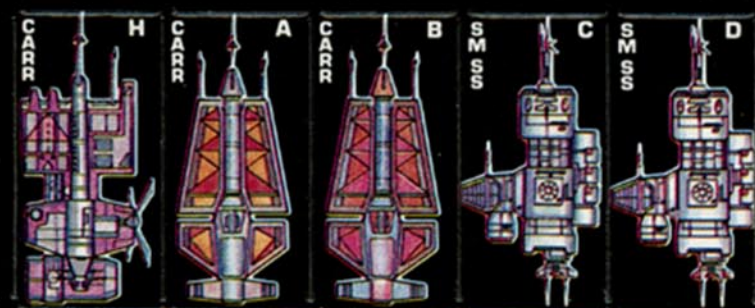
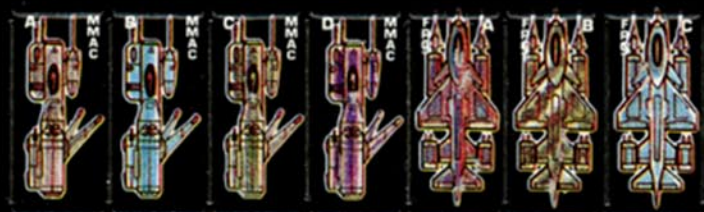6) The OB portion of the Combat Pilot OB/DB split. § ‡
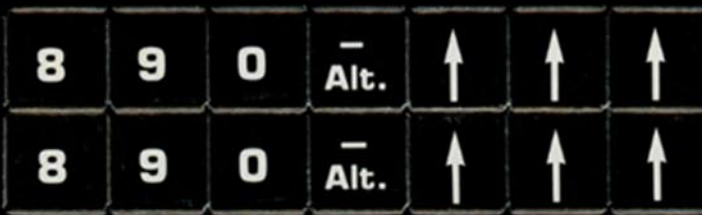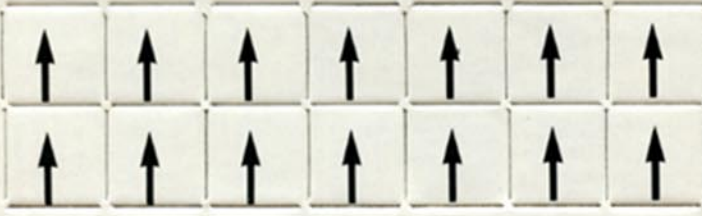
Notes: (*, †, ‡, §) see p. S29.

DEFENSIVE BONUS

Add together these factors to determine a vessel's DB when fired upon:

1) Armor Quality bonus.

2) Armor Belt bonus.

3) EW bonus.

4) Screen bonus.

5) Computer's Evade Program bonus. §

6) The DB portion of the Combat Pilot OB/DB split for the Round. §
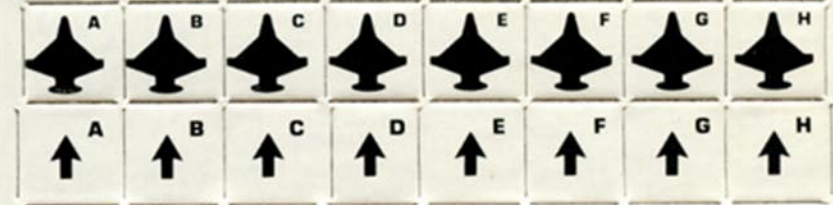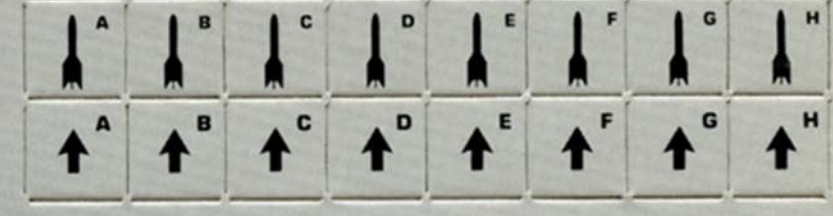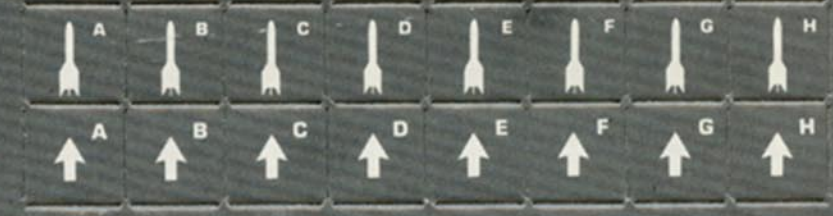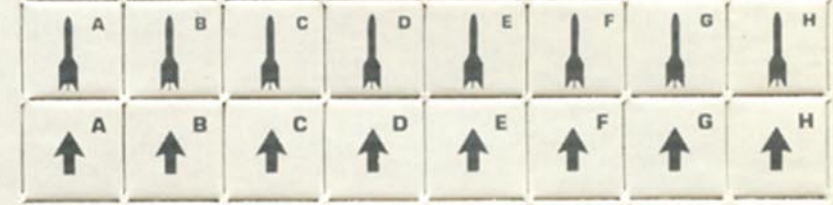
Notes: (*, †, ‡, §) see p. S29.

1	2	3	4	5	6	7
1	2	3	4	5	6	7

8	9	0	+ Alt.	↑	↑	↑
8	9	0	+ Alt.	↑	↑	↑

GENERIC STARCRAFT & DUMMY MARKERS

TORPEDOES & DUMMY MARKERS

1	2	3	4	5	6	7
1	2	3	4	5	6	7

8	9	0	− Alt.	↑	↑	↑
8	9	0	− Alt.	↑	↑	↑

GENERIC STARCRAFT & DUMMY MARKERS

ASTEROIDS

LIFE PODS

MINES

CONTENTS

STANDARD GAME SEQUENCE OF PLAY

1: Missile/Torpedo Launch Phase
2: Initiative Phase
3: Movement/Maneuver Phase
4: Projectile/Energy Fire Phase
5: Missile/Torpedo Results Phase
6: Final Orientation Phase

INITIATIVE

Initiative Number =
Open-ended Roll
+ Pilot's Combat Pilot bonus
+ computer's Tactics Program Bonus
+ vessel's Maneuver Thrust
+ Damage/Casualty Modifiers

MANEUVERS

Each Round, a starcraft may attempt to perform one, and only one, of the following maneuvers:

• Withhold MTs
• Disengage from battle
• Dodge detonating Explosive Torpedoes
• Engage one Tractor Beam
• Pursue a higher Initiative Ranked foe
• Launch from a carrier vessel
• Land on a carrier vessel
• Dock with another vessel/construct
• Grapple-to-board another vessel/construct
• Ram
• Enter Hyperspace

FINAL ORIENTATION OPTIONS

• Regain control of an Out of Control vessel
• Repair Routine or Light Damage/Malfunction with automatic Damage Control system
• Extinguish an internal fire with Damage Control system
• Detect an unrevealed foe with Sensors and EW
• Use Sensors to gain information
• Reorient Screens
• Receive (process) and/or transmit one Microfreq communication
• Self destruct

EXPANDED SUMMARY: THE SEQUENCE OF PLAY

Missile/Torp. Launch Phase:

1) Each Missile Launcher Gunner selects a target within Launchers' covered arc and attempts a Lock-on.

2) Each Missile Launcher Gunner with a Lock-on declares if, and how many, Missiles are launched at target.

3) Torpedoes are discharged; place Torp markers on the Map.

Initiative Phase:

1) Each player splits his pilot's Combat Pilot bonus between OB and DB (see Section 2.5).

2) Each player determines his vessel's Initiative Number (IN) for the round (see Section 2.6).

Movement/Maneuver Phase:

1) Every vessel with "Acquired Momentum" must "Drift" (see Section 4.6).

2) The vessel with the lowest Initiative Number moves first, the vessel with the 2nd lowest IN moves, the vessel with the 3rd lowest IN moves, and so on until all of the vessels have moved. Moving Starcraft may attempt Maneuvers (see Section 4.7).

3) Each Torpedo moves immediately after its target moves.

4) Remove Torpedoes (i.e., they self-destruct) whose targets have disengaged **or** whose targets no longer lie within their "tracking sphere" (see Section 4.4).

Projectile/Energy Fire Phase:

1) In accordance with their vessel's Initiative Number (i.e., highest first, second highest next, etc.), each Pilot and Gunner may fire the Cannon(s) of one Weapon Mount each.

2) All Projectile/Energy fire from an attack is resolved and the damage applied immediately (i.e., before the next combatant fires).

Missile/Torp Results Phase:

1) Resolve all Missile attacks declared during the preceding Missile/Torpedo Launch Phase.

2) The attacks of all Torpedoes entering their target's hexes are then resolved.

Final Orientation Phase:

Each vessel may *attempt* one of the *Final Orientation Options* for every five Control Points (see Section 4.11).

BONUS LIMITS CHART

(For Combat Pilot, Tactics, Predict, and Evade)

Vessel's Present Maneuvering Thrust	Maximum Bonus Limit for Combat Pilot and Rated Programs
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	54
12	58
13	62
14	66
15	70
16	75
17	80
18	85
19+	100

OFFENSIVE BONUS

Below are listed the factors which are added together to derive the OB for any given Weapon Mount discharge:

1) The Gunner's (or Pilot's, if firing) Heavy Energy Projector **or** Projectile Gunnery bonus. * †
2) The Mk.# of the Firing Mechanism(s).
3) The multiple Firing Mechanism attack bonus (+2 per Cannon).
4) The HUD bonus. †
5) Computer's Predict Program bonus. §
6) The OB portion of the Combat Pilot OB/DB split. § ‡

Notes: (*, †, ‡, §) see p. S29.

DEFENSIVE BONUS

Add together these factors to determine a vessel's DB when fired upon:

1) Armor Quality bonus.
2) Armor Belt bonus.
3) EW bonus.
4) Screen bonus.
5) Computer's Evade Program bonus. §
6) The DB portion of the Combat Pilot OB/DB split for the Round. §

Notes: (*, †, ‡, §) see p. S29.