PW-3

THE KLUZZ AND COLDARIN

Frigates through dreadnoughts for the Kluzz and the Coldarin Traders

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Introduction:

This module for Star Fleet Battles is the third in a series for use with the Star Fleet Battles game system. The races presented within this module do not dwell within the milky way galaxy. Instead, they are all found in the pinwheel galaxy, also known as NCG 2523.

It is widely recognized that a number of SFB players are interested in experimenting with new races. However, there are seriouis historical and play balance problems that would arise from introducing any new races to the milky way galaxy. Any major race introduced would require a complete re-write of the history of the galaxy, which would be a very major headache.

Please note that there is no historical interaction between the races of the milky way galaxy and the pinwheel galaxy. For this reason, no effort has been put forth to balance these races against the previously published races. However, it would be quite reasonable for the curious to use these races in the simulator against milky way races.

Ships from two races are presented here. These races are the Kluzz and the Coldarin Traders.

The new races that are presented here are not meant to be 'better' races. There are no heavy cruisers with ninety warp boxes, nor any omnipotent weapons or invulnerable defense systems. These races are meant to be very *different* races from the galactics, which will require a new way of thinking about combat in the SFB system.

In conclusion: Take these races, use them as you see fit, and enjoy yourself.

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Olthenian Concept
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Alhordian Concept
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Daalmari Concept
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Velron Concept
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Kakrea Concept
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Kluzz Concept
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Coldarin Concept
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(E206.0) TYPE E EXTENDED RANGE PHASERS

Extended range phasers were developed by the Coldarin after an extensive research effort aimed at mounting Type IV phasers on a ship. Although the effort failed, it did result in the development of the Extended Range Phaser, or Type-E phaser. This system is considered a heavy weapon despite being a variant of the phaser system.

(E206.1) DESIGNATION

Each "PH-E" box on the SSD represents one Type-E phaser. Each weapon is recorded and fired separately.

(E206.1.1) DAMAGE: Phaser-Es are destroyed on "Torp" hits. Directional phaser damage rules do not apply to the Phaser-E.

(E206.1.2) REPAIR: The Phaser-E costs 8 points to repair. Any energy stored in the capacitor when the weapon was destroyed is lost.

(E206.2) ARMING PROCEDURE

(E206.2.1) ENERGIZING: The capacitor of the Type-E phaser must be energized before it may hold energy (see E2.3). One point of power will energize all the ships phaser capacitors, including the Type-E phaser capacitors.

(E206.2.2) ENERGY: Each Phaser-E has a capacitor associated with it that can hold up to two points of energy. This capacitor may be armed with allocated energy or energy from reserve power. This capacitor is not part of the main phaser capacitor (see H6.0), nor is it connected to any other Phaser-E capacitor. Energy from this capacitor may not be transferred to any other capacitor system, and energy from any other capacitor may not be transferred into it. The capacitor may hold two points of energy, any additional energy allocated to the phaser for overload may not be stored in the capacitor.

(E206.2.3) SOURCE: Energy used to arm a Phaser-E may come from any source. It may be allocated at the beginning of the turn, or it may be reserve power.

(E206.2.4) HOLDING: The Phaser-E capacitor may hold up to two points of power for no additional cost. Additional energy may not be held and is discharged at the end of the turn.

(E206.3) FIRING PROCEDURES

(E201.3.1) PROCEDURE: The Phaser-E is fired during the Direct Fire stage of the Impulse Procedure. Damage scored by the weapon is determined by the range, the firing mode, and a die-roll.

(E206.3.2) RATE OF FIRE: The Phaser-E may be fired once per turn. There is an 8 impulse delay between firings when fired on separate turns. The weapon must use all power allocated at the time of firing, energy may not by "held back" to fire later in the turn.

(E206.3.3) COMPLETENESS OF FIRE: All energy allocated to the weapon must be used when the weapon is fired. A Phaser-E with four points allocated to it may not fire as a standard or a phaser-1. A Phaser-E with two points allocated may not fire as a phaser-1.

(E206.3.4) MODES OF FIRE: There are three modes of fire available to the Phaser-E.

(E206.3.4.1) Phaser-1 Mode: This mode functions identically to a phaser-1. The energy cost is one point of power, and the fire is resolved on the phaser-1 chart. If the total sum of energy available (allocated energy and energy held in the capacitor) is greater than one, then the weapon may not fire as a phaser-1.

(E206.3.4.2) Phaser-E Mode: This mode functions similar to the phaser-1, but uses the Phaser-E chart to resolve damage. The energy cost is two points of power. If more than two points of power is available to the weapon, then it may not fire in this mode. Note that the weapon may not fire at true range zero in this mode.

(E206.3.4.3) Overload Mode: This mode, while power inefficient, is the reason the Phaser-E is considered a heavy weapon. The Overload Phaser-E chart is used to resolve damage, The energy cost is four points of power, and may come from any source. The overload energy may not be held, but the two points of energy held in the phaser's capacitor is not lost if the weapon is not fired (only the two extra points of power are discharged.) The weapon may not discharge an overload in order to fire a standard phaser-E in the *same* turn. Note that an overload may never fire at less than a true range of three. This mode is an exception to (E2.42) restriction on overloaded phasers.

(E206.4) PHASER-E COMBAT CHART:

Type E Long Range Phaser

Die Roll	Range 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	--	8	7	6	5	5	4	3	2	1
2	--	7	6	5	5	4	3	2	1	1
3	--	5	5	4	4	4	3	1	0	0
4	--	4	4	4	4	3	2	0	0	0
5	--	4	4	4	3	3	1	0	0	0
6	--	4	3	3	2	2	0	0	0	0

Overload Type-E Phaser

Die Roll	Range 0-2	3-4	5-6	7-8
1	--	10	9	8
2	--	8	7	7
3	--	7	6	6
4	--	5	5	5
5	--	5	5	4
6	--	3	3	2

(E206.5) DAMAGE EFFECTS: For all purposes, including damaging plasma torpedoes, firing at small targets, and sweeping mines, the Phaser-E is considered to be phaser damage.

(E206.6) FEEDBACK: The Phaser-E system never scores feedback damage on the firing ship, regardless of firing mode.

(E206.7) DOWN FIRING: This phaser may never be fired as a phaser-2 or phaser-3.

(E206.8) UNDER-REPAIR: This system must be repaired as a Phaser-E, it may not be repaired as a phaser-1, phaser-2, phaser-3, or any phaser variant thereof.

(FM 201.0) COLDARIN MISSILES

Missiles are shuttle-sized seeking weapons that travel at warp speeds to deliver an anti-matter warhead to a target. The primary user (and developer) of this weapon are the Coldarin, who originally envisioned the missile as a planetary bombardment weapon. It functions quite well as a ship-to-ship weapon, however, and is especially lethal in close quarter combat.

The Citizen Defense Navy of the Velron Holdings also uses the Missile System, purchasing the launchers and missiles from the Coldarin Traders (despite being able to produce the weapon themselves, the Coldarins still sell it at a far cheaper cost.)

Missiles are similar to the drone system found in the Milkyway Galaxy, but are different enough to warrant a seperate rules section. Missiles function under the general seeking weapon rules (FD0.0) except as noted below. Coldarin missiles and missile launchers are seperate from the Frax missile launchers discussed in (FD52.0) and from the scud missile system discussed in (FD54.0). All references to missiles below refer to Coldarin missiles only.

(FM201.1) MISSILE LAUNCH TUBES AND MISSILES:

Missiles are carried within missile launch tubes. Each tube carries one missile, and unlike drones, may fire only into a specified arc. Missile launch tubes may not be mounted on a size class 6 ship (fighters and shuttles) since the missile itself is size class 6. The reloading process was long and laborious, and even with the invention of the faster loading process (RAMIRS) it can never be described as a quick operation.

(FM201.1.1)DESIGNATION: Each "MISSILE" or "MLT" box on an SSD represents one Missile Launch Tube. Each launch tube is recorded separately, and each missile is recorded separately.

(FM201.1.2) DAMAGE: Missile Launch Tubes are destroyed on "drone" hits.

(FM201.1.3) REPAIR: Missile Launch Tubes require 4 damage control points to repair. However, this will result in a empty tube coming on line, any missile in the tube, or in the process of being loaded, is destroyed.

(FM201.2) LAUNCHING MISSILES

(FM201.2.1) PROCEDURE: Missiles are launched during the Launch Seeking Weapons Stage of the Impulse Activity Segment of each turn. When launched the missile is placed on top of the launching ship (in the same hex) and in the direction indicated by the launch tube arc and (FM201.2.1.1). The target of the missile must be in the arc of the launch tube when it is launched, missiles must have the target in the missile's FA arc when it is launched

(FM201.2.1.1) MISSILE LAUNCH TUBE ARCS: When a missile is launched, its launch direction is determined be the facing of the tube as follows:

FA..... the missile is launched through shield facing #1
RF+R... the missile is launched through shield facing #2
RR+R... the missile is launched through shield facing #3
RA..... the missile is launched through shield facing #4
LR+L... the missile is launched through shield facing #5
LF+L... the missile is launched through shield facing #6

(FM201.2.2) ENERGY: It requires no energy to launch or arm a missile, fire control must be active, however.

(FM201.2.3) RECORDS: A record must be kept of the missiles launched and the missiles remaining in storage.

(FM201.2.4) TARGETS: A Missile may be targeted on any non-friendly unit (including drones, other missiles, and shuttles) except a plasma torpedo. Friendly units may not be targeted (D1.5).

(FM201.3) RELOADING: All ships armed with the missile system may carry extra missiles in storage, though the number of reloads is limited in ships without cargo. The ship can reload the launcher with missiles from storage during combat.

(FM201.3.1) PROCEDURE: The reloading process for the missile tube starts automatically (it does not need to be written down). The process takes 10 turns starting the turn after the missile was launched. The missile tube will again be ready for launch after the tenth turn of reloading.

(FM201.3.2) RELOADS: All ships are presumed (for no extra cost) to carry on extra set of reloads for its tubes. These reloads are in the hull section of the ship, and are destroyed when the last hull box is destroyed. Additional reloads may be bought only if the ship is equipped with cargo holds. Reload missiles in the hull or cargo sections of the ship are not associated with any particular launcher. The reload set matches the set found in the tubes.

(FM201.3.3) RAMIRS: Rapid Missile Reload System. An augmentation of the original launch tube, this system allows the tube to be reloaded in three turns (if the RAMIRS is loaded). The reload is stored in a partially completed form near the launcher and is quickly assembled in the tube by mechanical devices. Only one reload is associated with the RAMIRS device. The RAMIRS may also be reloaded, and this also takes ten turns. At any given time only the tube or the RAMIRS may be in the process of being reloaded. The cost for the RAMIRS is 2 BPV plus the cost of the reload missile. If the launch tube is destroyed, so is the RAMIRS associated with the tube. RAMIRS may only be repaired at a space-dock, if the tube is repaired, its RAMIRS does not function.

(FM201.4) MISSILES: Missiles come in three basic designs, the type A, with its big warhead and lack of armor is the most common type, but the type B and C missiles, each sacrificing some warhead strength for survivability are still fairly common, especially in fleet situations. Around YP140 the Coldarins invented the fast missile, giving the missile system a speed boost.

(FM201.4.1) TYPES OF MISSILES:

TYPE	MAX SPEED	WARHEAD	DAMAGE
A	16	50	10
B	16	35	15
C	16	20	20
AF	24	50	10
BF	24	35	15
CF	24	20	20

Max Speed = max number of hexes moved each turn
Warhead = number of damage points scored on impact
Damage = number of damage points needed to destroy the missile.

(FM201.4.2) STANDARD LOAD: All missile launch tubes are presumed to be loaded with a type A, B, or C missile. Each tube has one reload of the same type in storage, this is included in the BPV of the ship. If equipped with RAMIRS, the tube still has only one reload, and the reload with RAMIRS must be paid for. (It is not mandatory that the reload be paid for, the ship can start a scenario with no reload in the Hull section and the RAMIRS loaded with the free reload set.)

(FM201.4.3) IMPROVED MISSILES: In later years both the Coldarin and the CDN began using a faster missile, but the improved missile was expensive and difficult to produce and did not replace standard missiles until 30 years after invention. Each missile upgraded in speed costs 2 BPV, and the speed increase must also be paid for the free reload (the missile was free, not the speed upgrade). The speed upgrade for the reload does not have to be taken.

The Coldarins produced the fast missile first, but had production difficulties until YP170 that restricted the number of fast missiles available:
YP140: Coldarins may have 1 fast missile on size class 3 or larger ships, none on size class 4.
YP145: Coldarins may have 2 fast missiles on size class 3 or larger ships, 1 on size class 4.
YP150: Coldarins may have 3 fast missiles on size class 3 or larger ships, 1 on size class 4.
YP160: Coldarins may have 4 fast missiles on size class 3 or larger ships, 2 on size class 4.
YP170: Coldarins may have no restrictions on fast missiles.

The CDN restriction on fast missiles were more severe. The Coldarins did not sell the CDN fast missiles until YP170, therefor the CDN had to build their own fast missiles until then. For that reason only 2 fast missiles may be allocated to a size class 3 or larger ship between the years of YP150 through YP170. No size class 4 ship mounted fast missiles during this period. After YP170, all CDN missiles may be fast.

(FM201.4.4) COST CALCULATIONS: The cost for improved speed missiles is paid for every missile increased. It is 2 BPV per missile increased. Additional missiles may be bought (for RAMIRS or cargo) at a cost of 4 BPV for a standard missile and 6 BPV for a fast missile. Unlike drones, modules may not be added to missiles to increase damage rating, ECCM, warhead, etc. Missiles may not carry armor.

(FM201.5) MISSILE COMBAT: See (FD1.6), Drone combat, for additional rules.

(FM201.5.1) MISSILE MOVEMENT: Missiles have special movement rules regarding turn mode and speeds. Missiles may move speed 8, 16, or 24 (if fast) and may execute an unplotted speed increase.

(FM201.5.1.1) SPEED: Missile speed is determined by missile type. Missiles can be set to run at a lower speed and may undergo a speed increase upon command from the controlling unit (unplotted). Speed may never be decreased after launch. Missiles may only move at speeds 8, 16, and 24. Speed 24 is only available to improved missiles. No missile may move speed 0.

(FM201.5.1.2) SPEED CHANGES: A missile may be ordered to change speeds by the controlling unit. This change in speed must be an increase, must be to a speed of 16 or 24, and must be a legal speed for the missile. An improved missile (speed 24 missile) may increase its speed twice, once from 8 to 16, and then 16 to 24. An improved missile may also increase from speed 8 to 24 without spending time at speed 16. This speed increase is announced during the movement phase in exactly the same manner as any other unit. These speed changes are under all the normal restrictions and conditions for speed changes, including the

eight impulse delay between speed changes. Missiles have the additional restriction that the speed may not be changed within 8 impulses of launch.

(FM201.5.1.3) TURN MODE: Missiles, because of their size, have a turn mode. At speed 8, it is one. At speed 16, it is two. At speed 24 it is three. Missiles follow all restrictions and conditions of movement that apply to seeking weapons. Missiles may HET once per turn, and may not move forward when an HET is executed. If the HET is executed during an impulse the missile does not move, then it must forfeit its next movement impulse and remain in its hex..

(FM201.5.1.4) ENDURANCE: Missiles have an endurance of 100 turns. If the missile has not been destroyed (or impacted its target) when its endurance is exhausted then it will be treated as an expended missile (see FM201.7). Note that if the missile was fired on a given impulse of a turn, it will become inert on the same impulse, 100 turns later. A missile traveling at a lower speed does not extend its endurance.

(FM201.5.2) MISSILE TARGETS: Missiles may be targeted at any unit, including other missiles, drones, shuttles and fighters, except plasma torpedoes.

(FM201.5.3) FIRING AT MISSILES: Any type of weapon may fire at a missile, however, the small target modifier applies to weapons fire directed at a missile (see E1.7). Missiles are engaged as a fighter for the purposes of the small target modifier.

(FM201.5.3.1)DESTRUCTION: A missile is destroyed if it receives damage points equal to its damage rating (see FM201.4.1). There are no "crippled" missiles. Unlike drones, armor may not be added to increase the damage rating of a missile.

(FM201.5.3.2) MULTIPLE MISSILES: If several missiles, or a combination of missiles and other units are in the same hex, the destruction of a missile does not affect the other units in the hex. Missiles do not have an "explosion" strength. This rule is similar to (FD1.55)

(FM201.5.3.3) ANTI-DRONES AND LPLs: Anti-drones and LPLs will damage a missile as if it were a fighter (size class 6 unit).

(FM201.5.4) TRACTORING MISSILES: Missiles may be tractored, but it is a difficult operation, as all missiles produce some anti-tractor. All normal rules governing tractor and anti-tractor exchanges apply.

(FM201.5.4.1) MISSILE ANTI-TRACTOR: All missiles start (undamaged) with four points of anti-tractor. This anti-tractor is built into the outer hull of the missile and can be damaged. As the missile takes damage, the amount of anti-tractor the missile produces is reduced. The amount of damage is regardless of the missile type, as the extra armor of the type B and C missiles is installed under the outer hull.

0-2 damage points -- 4 points of anti-tractor.
3-4 damage points -- 3 points of anti-tractor.
5-6 damage points -- 2 points of anti-tractor.
7-8 damage points -- 1 point of anti-tractor.
9+ damage points -- no anti-tractor.

(FM201.5.5) IDENTIFYING MISSILES: The type of missile is not declared at launch. It may be deduced from the actions of the missile, or by using the Lab procedure (see G4.2). If identified the controlling player must disclose to the labbing ship the exact type of missile, its warhead strength, its max damage, any damage it has sustained, its max possible speed, and, of course, its target.

(FM201.6) MISSILE CONTROL and ELECTRONIC WARFARE:

(FM201.6.1) CONTROL RATING: Missiles require a great deal more attention from their guiding ships than other seeking weapons. A ship must use 5 sensor control channels to guide each missile, and all ships armed with missiles have at least full seeking weapon control rating. If a ship is equipped with double seeking weapon control, it may control two missiles (10 total channels). A ship equipped with a special sensor channel (such as scouts or the Coldarin missile destroyer) may use one sensor (and only one) to guide one missile.

(FM201.6.1.1) Ships without a missile system may not accept control of a missile (regardless of control rating) unless specifically equipped to do so. Ships equipped with a special sensor may control one missile with the sensor, but unless it has a missile system, it may not use its regular sensor channels to control any other missile.

(FM201.6.1.2) A ship equipped with a special sensor that is powered to guide 6 seeking weapons may control one missile, but it will use all of the available control slots (all six).

(FM201.6.2) RELEASE and TRANSFER OF CONTROL: If a ship transfers control of a missile to another ship, or releases control of a missile, the control channels (from the regular sensors or the special sensors) require time to reset. For the next 16 impulses, including the impulse of transfer or release, the control channels cannot be used to control seeking weapons of any kind.

Example: If a Coldarin destroyer drops control of a missile (it hit its target) on impulse 16, then during impulses 16 through 31 it may not control more than one seeking weapon that is not a missile (the five control channels used to control the missile must reset). On impulse 32 the channels have reset, and the destroyer may launch a new missile (or more suicide shuttles...)

(FM201.6.3) ELECTRONIC WARFARE: Missiles are equipped with 6 points of ECCM and may add the ECCM levels of guiding ship to its total. If a missile's controlling ship fails to keep lock-on to the target (such as trying to lock onto a cloaked vessel), then the missile will try once to retain lock-on, should the missile fail to retain lock-on, it will immediately go inert (see FM201.7). The sensor rating of a missile is considered to be 6. If the missile retains lock-on to the target, it will continue to track the target, but will not provide the guiding ship with lock-on.

(FM201.6.3.1) INTERACTION WITH SCOUT FUNCTIONS: There are unique interactions with scout functions with regard to missiles. Use of (G24.24), guiding seeking weapons with special sensors, is covered under (FM201.6.1).

(FM201.6.3.1.1) BREAKING LOCK ON (G24.22): If a scout wishes to break a lock-on of a missile it must use one powered special sensor. Each sensor has three attempts per turn, as normal. However, Two dice are rolled, and the missile lock-on is broken only on a 2, 3, or 4 result. Any other result does not affect the missile.

(FM201.6.3.1.2) "WILD" SCOUTS (G24.23): If a scout wishes to attract a missile using (G24.23) it must roll for success. A six sided die is rolled, and a result of 1,2, or 3 indicates that the missile has accepted the scout as its new target. Each powered special sensor on a ship may only make one attempt per turn.

(FM201.6.3.1.3) WILD WEASELS AND SWACS: If a ship deploys a wild weasel, or deploys a SWAC shuttle that "goes wild" each missile that would normally be attracted to the decoy (either the WW or the SWAC) must roll a six sided die. a result of 1-3 indicates that the missile accepted the decoy as its new target, a result of 4 or 5 indicates that the missile remained targeted on its initial target (the target it currently had when the diversion was attempted, in some cases this may be a seperate target then the launch target). A result of six indicates that the missile became "confused" and goes inert (see FM201.7).

(FM201.6.3.1.4) SPECIAL SENSOR BLINDING: The launch of a missile does not blind a special sensor.

(FM201.6.3.2) CHAFF: Chaff does not divert missiles, regardless of the source of the chaff or the range to the target.

(FM201.7) INERT MISSILES: Inert missiles follow all rules stated in (FD1.7) despite being size class 6 (in exception to (FD1.72)).

(FP202.0) ENERGY TORPEDOES

Energy Torpedoes are used exclusively by the Kluzz. The development of the weapon came from a mixture of native disrupter technology, a captured Olthenian plasma torpedo launcher, tidbits of technical information supplied by the Daalmari, and dumb luck. The result is a weapon unique to the Kluzz, much like the Kluzz are just plain unique. Once launched the energy torpedo behaves much like a plasma torpedo, except were noted.

(FP202.1) DESIGNATION

Each "ET" on an SSD represents one energy torpedo launcher. Each launcher is fired and recorded separately.

(FP202.1.1) DAMAGE: Energy torpedo launchers are destroyed on "Torp" hits in the damage allocation chart.

(FP202.1.2) REPAIR: Destroyed energy torpedo launchers require 8 points of damage control to repair. Any energy stored in the launcher that was not launched in the eight impulse window after destruction is lost. (see FP202.3.3)

(FP202.1.2.1) Energy torpedo launchers may not be repaired as any other type of plasma launcher. The weapon may not be "under-repaired".

(FP202.2) ARMING PROCEDURE

(FP202.2.1) PROCEDURE: Each torpedo requires three turns to arm, there is no fast load option for the energy torpedo. Six points of energy must be allocated over the three turns for a standard load torpedo. Each turn must be allocated at least one point of energy, otherwise there is no restriction on the energy applied to the weapon on any given turn. Even if all six points of power are applied to the weapon on the first turn, one point of power must be allocated on the second and third turn or the torpedo will be ejected by the crew. 10 points of power must be allocated to the torpedo for an overload, see (FP202.5).

(FP202.2.2) ENERGY: Power to arm an energy torpedo may come from any source. Six points of energy must be applied to the torpedo over three turns, at least one point per turn must be allocated during energy allocation, the other three points of energy required by the weapon may come from any source, including reserve power mid-turn.

(FP202.2.3) HOLDING: A standard load energy torpedo may be held for one point of energy. An overloaded energy torpedo may not be held and must be launched or discharged by the end of the turn it was overloaded, see (FP202.5). If the holding energy is not paid, the torpedo is immediately ejected.

(FP202.2.3.1) ROLLING DELAY: The energy torpedo may not be held by rolling delay. If the energy cost of six points is not paid by the end of the third turn, the torpedo will be ejected.

(FP202.2.3) EJECTION OF A TORPEDO: If the energy to hold or arm a torpedo is not paid, the torpedo will be ejected by the crew at the end of the energy allocation phase.

A torpedo must be ejected at the end of a turn if it cannot be legally held (an overload)

If, by the end of the third turn of arming, sufficient energy is not allocated to the weapon to fully arm the torpedo the torpedo will be ejected.

Ejection of the torpedo must be announced, but not the status of the torpedo (how much energy it had, if it was overloaded, etc...)

(FP202.2.4) PRIOR ARMING: At weapon status 0 the energy torpedo has no power in it. At WS-1 there is one turn and two points of power present. At WS-2 there are two turns and four points of power present. At WS-3 the weapon may come in with 6 points of power and three turns of arming. No overload energy is ever applied to the torpedo in WS 1, 2 or 3.

(FP202.3) LAUNCH PROCEDURES

(FP202.3.1) PROCEDURES: The torpedo is launched during the seeking weapons launch stage of the impulse activity chart. Upon launch of the torpedo its warhead strength and speed must be announced.

(FP202.3.2) LAUNCH ARCS: The energy torpedo is restricted to a 120^0 arc of launch. The target must be in the arc of the launcher.

(FP202.3.3) LAUNCH AFTER DESTRUCTION: Rule (FP1.7), launch after destruction of the launcher, applies to the Energy torpedo. The torpedo must be launched within the eight impulse delay after the launcher is destroyed or the torpedo will be ejected and the energy lost.

(FP202.3.4) SPEED: A launched standard torpedo has a speed of 32, a launched overloaded torpedo has a speed of 24.

(FP202.4) DIRECT FIRE

The energy torpedo, because it uses disrupter energy to ionize the plasma, does not bolt its torpedoes, but instead uses the disrupter chart for direct fire.

(FP202.4.1) If the energy torpedo has at least three points of energy, but less than six, and is in its second turn of arming the energy torpedo may be direct-fired as a standard disrupter bolt. This uses all of the stored energy accumulated by the torpedo even if more energy is available. If fired as a disrupter the next turn becomes the new first turn of arming. Up to one point of energy may be reserve power. If there is six or more points of energy, or the torpedo is being held, then the weapon cannot fire as a standard disrupter.

(FP202.4.2) If the weapon has six or more points of energy and is in at least in its second turn of arming then the torpedo may be direct-fired as an overloaded disrupter bolt. This weapon's fire is limited to a maximum true range and effective range of eight. This fire uses all power accumulated in the weapon, even if more power is available. If fired as an overloaded disrupter the next turn becomes the first turn of arming. Up to four points of energy may be from reserve power. If there is more than six points of energy, the weapon may be fired as an overloaded disrupter with no additional damage. If the torpedo is being held it may only fire as an overloaded disrupter in direct fire mode. If the weapon is an overloaded torpedo there is no additional damage done if fired as an overloaded disrupter.

(FP202.4.3) The 120^0 launching arcs are used as the firing arcs of the weapon in direct fire mode.

(FP204.5) OVERLOADED TORPEDOES: Energy torpedoes may be overloaded, in exception to (FP1.85). There are two methods of overloading.

(FP204.5.1) ALLOCATED OVERLOAD: If, at the end of energy allocation on the third turn of arming, the torpedo has 10 points of energy accumulated, then the torpedo may be launched during the turn as an overloaded torpedo. It may not be launched as a standard torpedo, and if not launched by the end of the turn it will be discharged into space by the crew. If a standard

torpedo is held, it may be overloaded by allocating five points of energy during a subsequent energy allocation phase. The ship has the full turn to launch the overload or it will be ejected by the crew at the end of the turn.

(FP204.5.2) RESERVE OVERLOAD: If, by the end of the third turn of energy allocation, the torpedo has less than ten points of energy, then it is a standard torpedo (even if it had nine points, it is still a standard). All energy over six points (but less than ten) is lost. A standard torpedo, on the third or later turns of arming, may be overloaded with five points of reserve power (for a total of eleven points, minimum). A torpedo that is overloaded in this manner must be launched immediately, or it will be ejected by the crew.

(FP204.5.3) INTERMEDIATE ENERGY LEVELS: If there is more than six points of energy but less than ten points in an energy torpedo over the course of the three turn arming cycle then the weapon is a standard torpedo (and may be launched as such). The extra energy above six points is lost. If the torpedo is to be overloaded after energy allocation is done on the third turn, then five points of energy must be allocated. A standard torpedo, regardless of the energy over six points at the end of the third turn of arming, may be held.

(FP204.5.4) OVERLOAD WARHEAD STRENGTH: Use the chart (FP204.6) to determine the warhead strength of an overloaded torpedo.

(FP204.5.5) SPEED: An overloaded torpedo travels at a speed of 24, not 32. Note that the chart for the torpedo indicates time after launch, not range. Count the number of impulses since launch to determine the warhead strength.

(FP204.5.6) BOLTED: See (FP204.4) regarding direct fire of energy torpedoes.

(FP204.6) ENERGY TORPEDO WARHEAD STRENGTH: Use the chart below to determine warhead strength. Use time from launch, not hexes traveled.

Energy Torpedo Warhead Strength Table

Time	0-5	6-10	11-12	13-14	15	16-18	19	20
Standard	20	15	10	5	1	0	0	0
Overload	30	30	25	20	15	10	5	1

(FP204.7) BUILT-IN ECCM: Energy Torpedoes have 4 built-in points of ECCM.

(FP204.8) ENVELOPING, SHOTGUN, AND PSEUDO-PLASMA TORPEDOES: Energy torpedoes may not shotgun or envelope. Energy torpedoes do not have Pseudo-plasmas.

(FP204.9) FIRING AT ENERGY TORPEDOES: As with regular plasma torpedoes, energy torpedoes may be damaged by phaser fire only. Warhead strength is reduced by one point for every two points of phaser damage inflicted. No other explosions or weapons will damage an energy torpedo unless the weapon states that it can damage a plasma torpedo. The weapon in question will damage an energy torpedo in the same manner it damages a plasma torpedo. Any effect that reduces a plasma torpedo by endurance will effect the time from launch of an overloaded energy torpedo (see (FP204.5)).

(G204.0) ENHANCED DISRUPTER CONTROL SYSTEM (EDCS)

The Enhanced Disrupter Control System, or EDCS, was invented by the Kluzz around YP55. It is an advanced targeting computer that inputs fire from one disrupter and adjusts the fire of another, subsequent fire, to better the odds of scoring a hit. The Kluzz would eventually sell the system to one of there few allies, the Yunderians, in YP126. The Yunderians would modify the system for their pulse cannon and eventually call the system the Advanced Targeting And Sequencing Computer (ATASC). While both computers functioned in identical ways, the Yunderian pulse cannon was much better suited to the system than the Kluzz disrupter.

The system effectively ripple-fires a bank of weapons, if the first weapon hits, any other weapon fired from the same bank at the same target on the same impulse receives a plus 1 to its die roll for determining a hit. The system works only with disrupters (not energy torpedoes fired direct fire) and only with disrupters in a single bank. It never modifies the first weapon fired from the bank, and does not modify subsequent firings from the bank if fired on a later impulse.

(G204.1) DESIGNATION: There is no box for the EDCS, it is an integral part of the disrupter control system and cannot be damaged (not even by a hit and run raid). It requires no energy, and once installed it may not be "turned off".

(G204.2) OPERATION: The EDCS requires no energy to operate. It will function automatically every time more than one disrupter is fired from a bank of disrupters.

(G204.2.1) ACTIVATION: The EDCS must be activated. The requirements for activation are:

More than one disrupter must be in the bank
More than one disrupter from the bank must be firing on the same impulse
All disrupters firing on the given impulse must be firing at the same target
All disrupters firing on the given impulse must have the same arming level
A disrupter must hit the target before the EDCS will activate.

(G204.2.2) EFFECT ON FIRE: The EDCS adds a plus one to the "to hit" number of a disrupter if it meets the activation requirement. To simulate the effect the EDCS has, each disrupter must be rolled individually. Until a disrupter scores a hit without the aid of the EDCS the EDCS will not activate. After a disrupter from the bank in question has scored a hit, then each subsequent disrupter from that bank gains a plus one to its hit probability for that impulse at that target.Example: A Kluzz DN is firing at a Daalmari CA. The Kluzz DN has four disrupters in its forward bank and wishes to fire all four at the CA. All four disrupters are standard, and the range is 8 hexes, normally he would hit on a 1-4. He rolls one die for the first disrupter and comes up with a 5, a miss. The EDCS system does not activate. On the second roll for the bank (rolling for the second disrupter) he rolls a 3, a hit. The EDCS is now active, for disrupter three and four the hit probability is now 1-5; regardless if shot three misses, shot four still receives the bonus.

(G204.2.3) MIXED FIRE: If one or more disrupters are being fired from the bank differ in either arming level or target on the impulse in question, the EDCS will not activate. The variables in question are to great for the system to handle. All disrupters from the same bank on the same impulse must be fired at the same arming level and at the same target. This restriction does not carry over from impulse to impulse. Example: The same DN above could fire Two overloaded disrupters on turn 1 and two standard disrupters on turn 2 at a different target. On both impulses the EDCS would be available for activation.

(R206) THE KLUZZ

(R206.0) BACKGROUND

Physically, the Kluzz are large bipedal mammals with long muscular arms and thick, shaggy fur covering their bodies. They have a large round head mounted on a very thick neck. Although they have a mouth full of long sharp teeth, they are omnivorous. The long pointy ears are movable, and they have sharp hearing. However, they are nearly colorblind. They range in size from 1.5 meters to 3 meters tall at adulthood.

Before they were contacted by other races, the Kluzz were a very technologically advanced race, especially for a pre-warp species. They excel in the areas of computer science and high-strength materials. The disruptor, a faster-than-light discharge of energy, was developed in YP 80. Kluzz researchers were well on their way to developing warp technology when the Daalmari agents landed on their planet in YP 93 and downloaded the technology into the information net of the Kluzz homeworld of Kaszal.

The Daalmari agents had done their work too well – the Kluzz never realized that they had received outside help for the discovery of warp travel. The Kluzz had a very resource rich home system with extensive sublight shipbuilding facilities. Within a year, they had constructed their first warp capable ship, and discovered the aliens in their ranks.

The Daalmari spies were all found and either killed or vivisected. This triggered a massive shipbuilding effort on the part of the Kluzz. Ship designs were small, as they were modifications of the sublight ships that existed at the time. Partly based on the Daalmari information, the energy torpedo was invented in YP 94 and immediately installed on the ships under construction. It employed a disruptor system to ionize the plasma before launch, which is why it has a direct fire mode that is similar to a disruptor.

In YP 96, the Kluzz encountered their first alien race, the Olthenians. The Kluzz attacked on sight, only later realizing that this was not the shape shifting race that had spied upon them. However, after hearing the religious dogma of the Olthenians, the Kluzz decided that they did not like them anyway, and continued their attacks.

The Daalmari delegation that traveled to Kaszal was met at gun point and killed shortly thereafter. With almost no pause, the Kluzz ceased their attacks upon the retreating Olthenians and sent their ships into Daalmari space.

By YP 97, the Daalmari had retreated out of the range of the Kluzz squadrons. The Kluzz continued to build warships, but did not start any sort of colonization effort until later. This was fortunate for the Kluzz during the first Kakrea incursion, as they had a large fleet and a very limited area to defend.

(R206.7) DREADNOUGHT: This ship was not built until YP 117, as there was not a shipyard big enough to do the job before then. It had four disruptors and two energy torpedoes as heavy weapons. It was extremely maneuverable for a dreadnought, second only to the Velron dreadnought in this aspect.

(R206.17) TORPEDO DREADNOUGHT: Only one of this ship was ever built, a conversion of a damaged dreadnought in YP 126. It replaces two disrupters with two extra wing energy torpedoes. Despite the extra flexibility and extra power, the ship was deemed a failure.

(R206.8) HEAVY BATTLECRUISER: First built in YP 114, this was the Kluzz's first attempt to build a heavy capital ship. Effective as a heavy battlecruiser, it was too small to fill the dreadnought role initially envisioned. Only three were ever built, the final one was converted to a heavy torpedo battlecruiser.

(R206.16) HEAVY TORPEDO BATTLECRUISER: A conversion of the last heavy battlecruiser in YP 118. It was slightly more popular with ship captains because it could "dance" better while avoiding its weakness of few internals.

(R206.1) BATTLECRUISER: First built in YP 99 in tandem with the slightly smaller CC, this ship mounted three disrupters and two energy torpedoes. It was considered superior in all areas to the heavy cruiser, but costs kept the ship in limited production in favor of the less expensive command cruiser.

(R206.15) TORPEDO BATTLECRUISER: First completed in YP 101 as a possible answer to frequent Kakrea incursions into Kluzz space. Seven of the ships were built before it was decided that the ship was an abysmal failure.

(R206.2) COMMAND CRUISER: Completed in tandem with the battlecruiser in YP 99, the CC is more a downgraded BC than an upgraded CA. Almost two CCs were built for each BC because of the expense of the battlecruiser.

(R206.14) TORPEDO COMMAND CRUISER: The largest ship to mount only energy torpedoes, this ship proved especially useful in assaulting bases and slow moving targets. The first was completed in YP 102.

(R206.3) HEAVY CRUISER: This ship, first built in YP 95, was the largest ship available to the Kluzz for their wars against the Olthenians and the Daalmari. It had two energy torpedoes and two disruptors as heavy weapons, and a good phaser array. Although the ship did not have a large number of internals, it was very maneuverable and had very good phaser arcs.

(R206.13) HEAVY TORPEDO CRUISER: First completed in YP 97, this ship was produced to hunt down Olthenian border stations, a job it was aptly suited for as four energy torpedoes could devastate an enemy base.

(R206.4) CRUISER: First built in YP 94, this ship had the same heavy weapons array as the heavy cruiser.

(R206.5) DESTROYER: First built in YP 94, this ship had one disruptor and two energy torpedoes.

(R206.12) TORPEDO DESTROYER: The smallest ship to receive the torpedo refit, it replaces the lone disrupter with a forward energy torpedo. It was a moderate success.

(R206.6) FRIGATE: This ship had only one disruptor and energy torpedo, mounted in an FA arcs in exception to all of the other Kluzz designs. This weapons arrangement was not as effective at discouraging pursuit as the energy torpedo could not be launched rearward. Instead, the energy torpedo was often used in direct fire mode to augment the disruptor. The potential launch of an overloaded energy torpedo meant that this ship could not be ignored in close combat.

(R206.9) SURVEY CRUISER: Based on the cruiser, the survey cruiser retains two energy torps as self defense, but only mounts two special sensors.

(R206.10) SCOUT: Based on the destroyer, the scout retains one ET for self defense and mounts two special sensors. It is relatively weak as a scout, but the Kluzz do not seem to care...

(R206.11)TUG: Based on the heavy cruiser, the tug retains its wing energy torpedoes and gains some tractors and internal bracing.

(R207) COLDARIN TRADERS:

(R207.0) BACKGROUND:

The Coldarin are a mysterious race of interstellar traders that travel throughout the empires of the pinwheel galaxy. The location of their homeworld, if there is one, is unknown to anyone except the Coldarin themselves.

Physically, they appear to be insectoid, with four legs, two arms, and multifaceted eyes. However, over most of their body they have a short but thick coating of fur, and appear to breath

through their mouth, not their abdomen. They are warm blooded creatures, and have four finger like digits on each arm. An average Coldarin stands about 1.8 meters tall.

Their biochemistry is unique from any other race. They breath a mixture of gasses consisting of nitrogen, oxygen, chlorine, fluorine, xenon, and neon, in decreasing order of concentration. They exhale carbon dioxide and chloroform vapors. All except the nitrogen and neon appear to be needed for a Coldarin to survive. Their cell structure includes bizarre proteins and nucleotides that are unknown to any other race in the galaxy. Or, as a Kluzz captain has been quoted as saying: "God! They taste horrible! And I had the runs for a week!"

All of the outposts that they have planted have been small and do not apparently grow in population. To date, no planet has been found on which a Coldarin can survive unassisted for any length of time.

The first known race that they contacted was the Velron in YP 80. Although the Velrons were extremely suspicious at first, the Coldarins slowly managed to negotiate an agreement of trade with them. Limited trade started in YP 81, and by YP 86, the Velrons had opened up a good number of their empire and spaceports to the Coldarin, and ceded them corridors of safe passage through their empire. By use of these corridors, the Coldarin had direct contact with the Alhordians in YP 86, and limited trade by YP 87. Routes through Alhordian and Velron space led them to encounter the Olthenians in YP 89, but the Olthenians were not receptive at all to the idea of Coldarin traders roaming their space ways.

In all cases, the Coldarins have attempted to gain access to remote mineral and energy resources from the empires in exchange for finished goods. Coldarin products are well made and durable, but do not show any particular technological advantage over the locally produced products. They are instead typically priced below what the local producers can sell the items for. This type of economic policy has resulted in trade sanctions and tense fleet maneuvers between Coldarin and local fleets.

The Coldarins are officially neutral in all political dealings, but this is not true in practice. In YP 90, when the Alhordians and Olthenians were near war, there is evidence that the Coldarins were prepared to offer support the Alhordians, if they needed it.

Their style of government is unknown to any other race. What is known is that each Coldarin captain has great leeway in the way that it conducts itself. A deal struck by one Coldarin will generally be respected by other Coldarins that learn of it.

In combat, the Coldarins almost never fight to the bitter end. When overmatched, they choose to disengage rather than fight. Additionally, most of their support network of bases and supply posts is mobile. It has been demonstrated that the Coldarin are prepared to pack up and leave large sectors of space on a moment's notice.

(R207.8) DREADNOUGHT: The date in service of this vessel is unknown, but it was first seen in known space in YP 101, during the first Kakrea incursion. It has 6 missile launch tubes and 6 of the long range phaser-E weapons that are the trademark of the Coldarin ships. Unlike most other large Coldarin ships, the dreadnought had no ability to function as a tug.

(R207.9) HEAVY BATTLECRUISER: This ship was first seen in known space in YP 107 in a fight with two Kakrea cruisers. It looses one missile launch tube and two phaser-3s to the dreadnought, and a few internals, but is otherwise a good match for another heavy battlecruiser or even a dreadnought.

(R207.1) BATTLECRUISER: The largest Coldarin ship that can carry a cargo pod, the battlecruiser is well armed with 5 phaser-Es and 8 phaser-1s. There are insufficient power couplings between the ship and the cargo pod to allow armed pods to be carried.

(R207.2) COMMAND CRUISER: An upgraded heavy cruiser first seen in known space in YP 92. It carries two extra APR and upgraded command facilities. It may carry a cargo pod.

(R207.3) HEAVY CRUISER: This ship was first seen by the Velrons in YP 90. With 4 phaser-E weapons, the ship has an excellent damage curve at long and medium ranges. It is fast, and the 4 missile launch tubes deter any opponent that tries to get to close range with it. The ship is capable of functioning as a tug and can carry a cargo pod. There are insufficient power couplings between the cruiser and the pod for the ship to properly use any armed pods.

(R207.4) CRUISER: This is an obviously older design, first confirmed in known space in YP 91, though the Alhordians have an unconfirmed report of a similar ship in YP 76 and YP 82. The ship mounts only two phaser-Es, but an increased cargo pod.

(R207.5) LIGHT CRUISER: This ship was one of the first seen in known space. With slightly less direct firepower than the heavy cruiser, it was considered quite dangerous to engage, even if alone. This ship is also capable of carrying a cargo pod.

(R207.6) DESTROYER: This ship was the first Coldarin vessel to be seen in known space. Well armed for a destroyer, it could carry a cargo pod, albeit smaller than the pods carried by cruisers.

(R207.13) MISSILE DESTROYER: A variant of the destroyer, this ship looses all of its phaser-Es in favor of two special sensors, two extra forward missile launch tubes, and double seeking weapon control.

(R207.7) FRIGATE: This is the smallest warship that the Coldarins typically use. With only one missile launch tube, it could not stand up in a knife fight.

(R207.10) SURVEY CRUISER: Based on the cruiser hull, the Coldarin SRV sacrifices two tractor beams to gain two special sensors, leaving the ship as a full combat capable cruiser. This ship has the upgraded power couplings to mount armed pods.

(R207.11) SCOUT: A common destroyer based design, the ship sacrifices its phaser-Es for three special sensors.

(R207.12) TUG: Another design based on the cruiser, the tug not only mounts the upgraded power couplings to use armed pods, but also has increased structural members to haul more than one pod at a time (but only one pod may be armed).

COLDARIN DREADNOUGHT

CREW UNITS

10 20 30 40 50

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D D D

TURN MODE		SPEED
D	1	2-4
	2	5-8
	3	9-12
HET	4	13-17
	5	18-24
BD	6	25+

SHIP DATA TABLE		
TYPE	=	DN
POINT VALUE	=	202
BREAKDOWN	=	3-6
SHIELD COST	=	1+3
LIFE SUPPORT	=	1+1/2
SIZE CLASS	=	2
REFERENCE	=	R207.8
PLUS REFIT	=	+ 4
RAMIRS	=	+ 12

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF L R LR RR

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

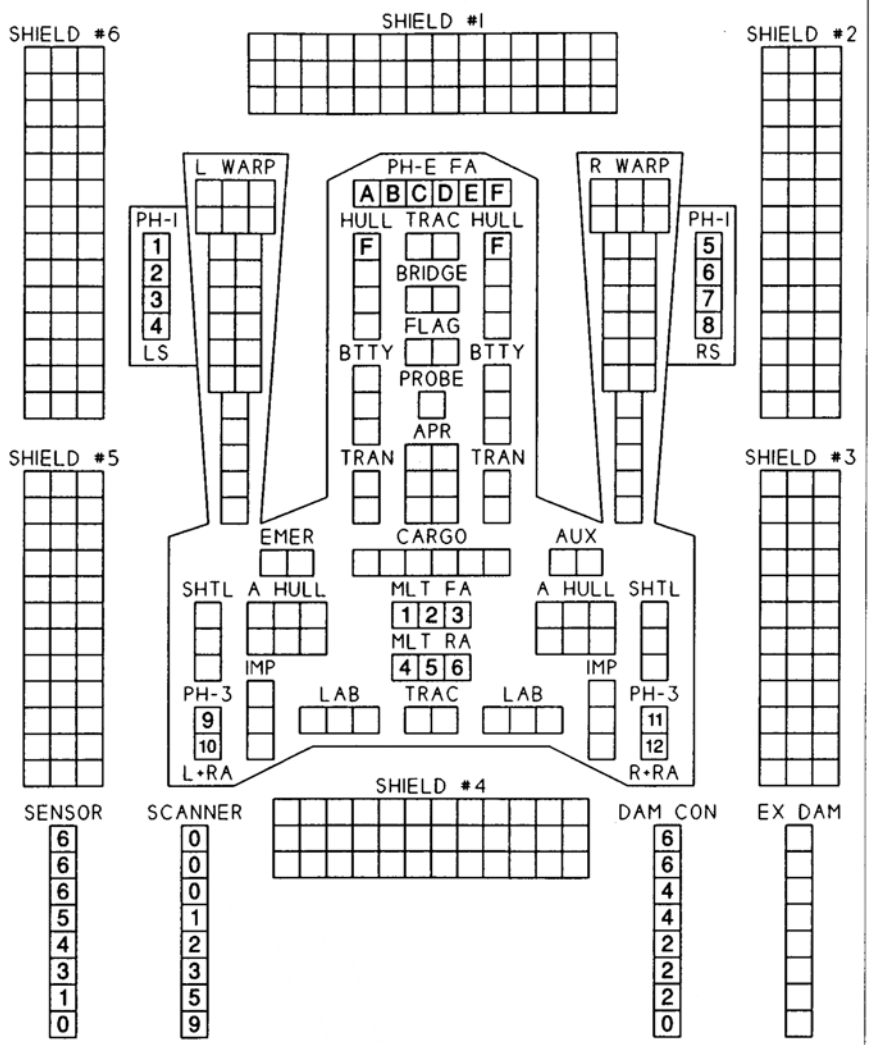
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1 2 3 4 5 6



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

WARP ENERGY MOVEMENT COST - 1 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	42	44	45
Fract	1 1/2	3	4 1/2	6	7 1/2	9	10 1/2	12	13 1/2	15	16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30	31 1/2	33	34 1/2	36	37 1/2	39	40 1/2	42	43 1/2	45

COLDARIN H BATTLECRUISER

CREW UNITS: 10 20 30 40

BOARDING PARTIES: 10

PROBES: 5

TRANSPORTER BOMBS: D D D D D D

TURN MODE		SPEED
D	1	2-4
	2	5-8
	3	9-12
HET	4	13-17
	5	18-24
BD	6	25+

SHIP DATA TABLE

TYPE	=	BCH
POINT VALUE	=	188
BREAKDOWN	=	4-6
SHIELD COST	=	1+3
LIFE SUPPORT	=	1+1/2
SIZE CLASS	=	2
REFERENCE	=	R207.9
PLUS REFIT	=	+ 4
RAMIRS	=	+ 10

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

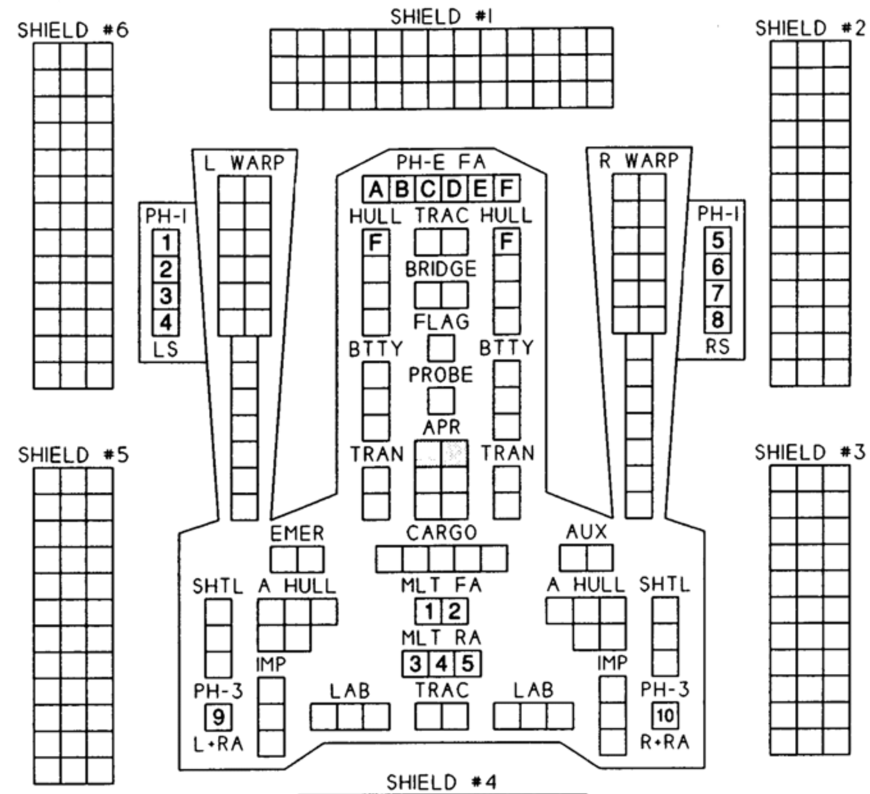
TYPE E EXTENDED RANGE PHASER TABLE

DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES: 1 2 3 4 5



SENSOR	SCANNER	DAM CON	EX DAM
6	0	6	
6	0	6	
6	0	4	
5	1	4	
4	2	2	
3	3	2	
1	5	2	
0	9	0	

☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

WARP ENERGY MOVEMENT COST - 1 1/4 ENERGY POINT PER HEX   [5] - HET COST   ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	4	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23	24	25	27	28	29	30	32	33	34	35	37	38
Fract	1 1/4	2 1/2	3 3/4	5	6 1/4	7 1/2	8 3/4	10	11 1/4	12 1/2	13 3/4	15	16 1/4	17 1/2	18 3/4	20	21 1/4	22 1/2	23 3/4	25	26 1/4	27 1/2	28 3/4	30	31 1/4	32 1/2	33 3/4	35	36 1/2	37 3/4

COLDARIN BATTLECRUISER

CREW UNITS

10 20 30 40

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D

TURN MODE	SPEED
C 1	2-4
2	5-9
3	10-14
HET 4	15-20
5	21-27
BD 6	28+

SHIP DATA TABLE		
TYPE	=	BC
POINT VALUE	=	160
BREAKDOWN	=	5-6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R207.1
PLUS REFIT	=	+ 4
RAMIRS	=	+ 8
CARGO SKID	=	+ 10/2

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF L R LR RR

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

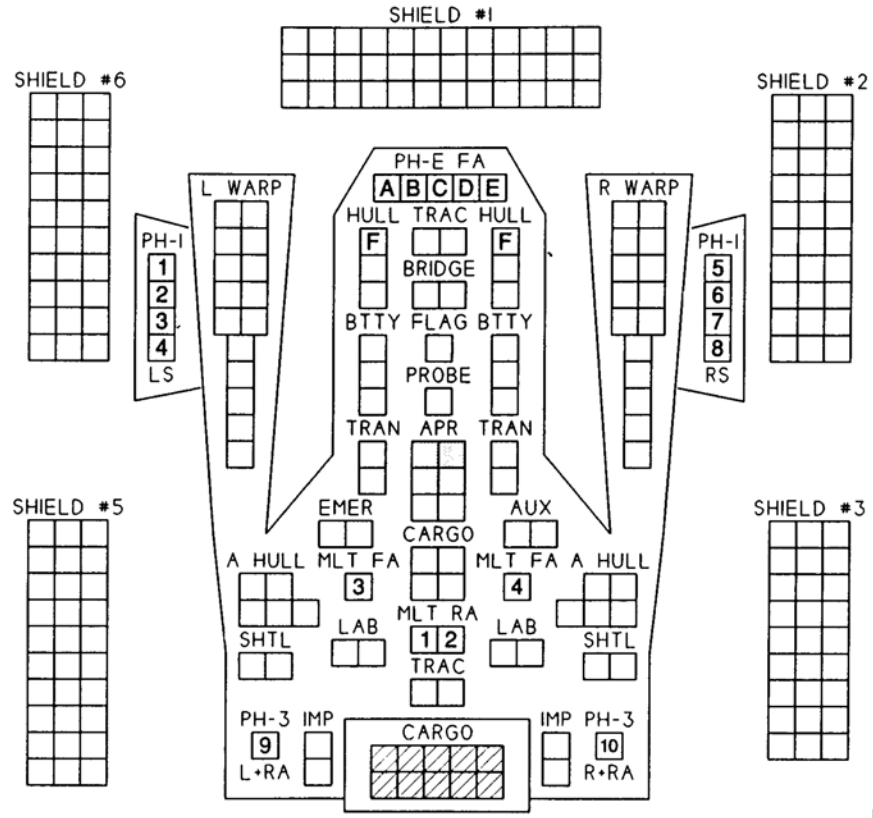
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1
2
3
4



SENSOR: 6 6 5 4 3 1 0

SCANNER: 0 0 1 2 3 5 9

DAM CON: 6 4 4 2 2 2 0

EX DAM

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

COLDARIN COMMAND CRUISER

CREW UNITS

10 20 30 40

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D

TURN MODE		SPEED
C	1	2-4
	2	5-9
	3	10-14
HET	4	15-20
	5	21-27
BD	6	28+

SHIP DATA TABLE		
TYPE	=	CC
POINT VALUE	=	141
BREAKDOWN	=	5-6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R207.2
PLUS REFIT	=	+ 4
RAMIRS	=	+ 8
CARGO SKID	=	+ 10/2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF L R LR RR

FA - LF • RF
RA - LR • RR
LS - LF • L • LR
RS - RF • R • RR

TYPE E EXTENDED RANGE PHASER TABLE

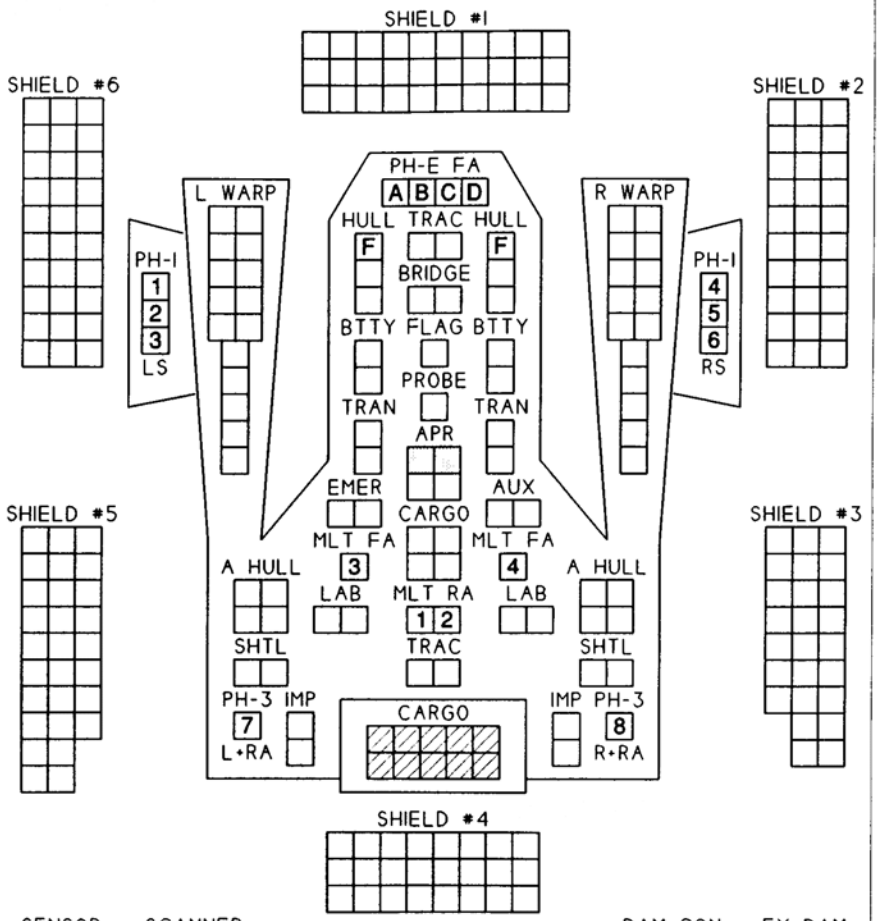
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1
2
3
4



SENSOR 6 6 5 3 1 0

SCANNER 0 0 1 3 5 9

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

DAM CON 4 4 2 2 2 0

EX DAM

☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

COLDARIN HEAVY CRUISER

CREW UNITS

		✳						10
								20
								30
								40

BOARDING PARTIES

								10

PROBES

			5

TRANSPORTER BOMBS

				D	D	D	D

TURN MODE		SPEED
C	1	2-4
	2	5-9
	3	10-14
HET	4	15-20
	5	21-27
BD	6	28+

SHIP DATA TABLE		
TYPE	=	CA
POINT VALUE	=	134
BREAKDOWN	=	5-6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R207.3
PLUS REFIT	=	+ 4
RAMIRS	=	+ 8
CARGO SKID	=	+ 10/2

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

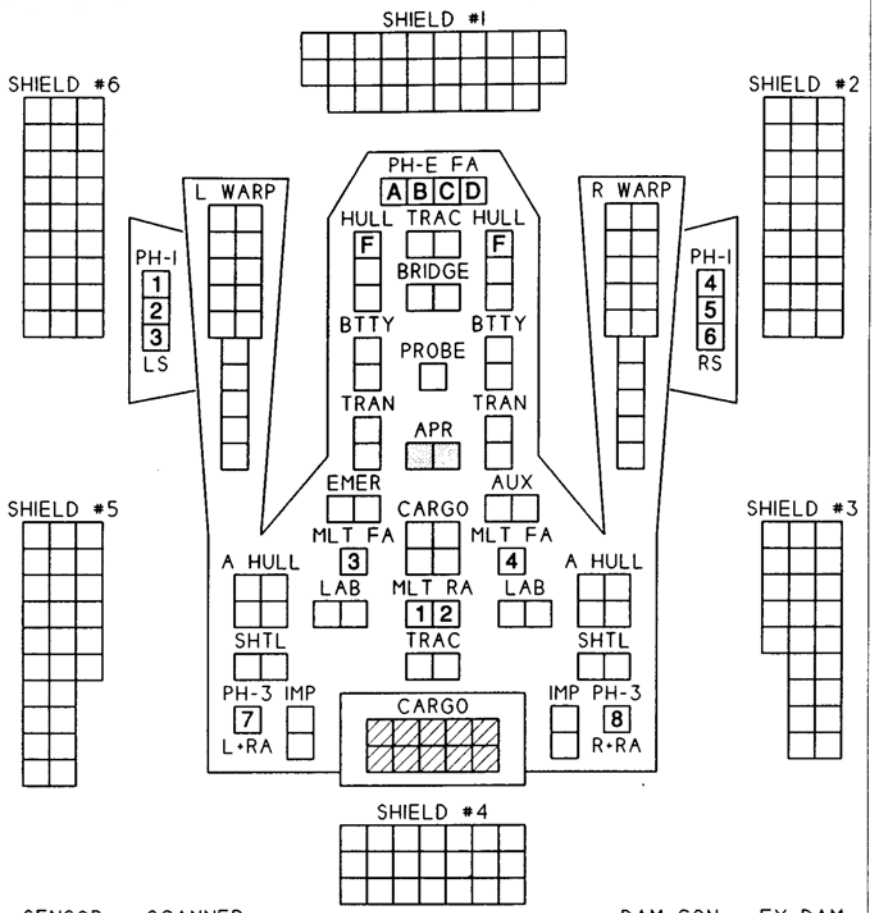
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1		
2		
3		
4		



SENSOR	SCANNER	DAM CON	EX DAM
6	0	4	
6	0	4	
5	1	2	
3	3	2	
1	5	2	
0	9	0	

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

SHADED BOXES ARE PRESENT ON THE PLUS REFIT

BOXES PRESENT WITH THE CARGO SKID

COLDARIN CRUISER

CREW UNITS

			X						10
									20
									30

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

				D	D	D	D	

TURN MODE		SPEED
D	1	2-4
	2	5-8
	3	9-12
HET	4	13-17
	5	18-24
BD	6	25+

MISSILE LAUNCH TUBES

1	
2	
3	
4	

SHIP DATA TABLE		
TYPE	=	C
POINT VALUE	=	108
BREAKDOWN	=	4-6
SHIELD COST	=	1-1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R207.4
RAMIRS	=	+ 8
CARGO POD	=	+ 21/15

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

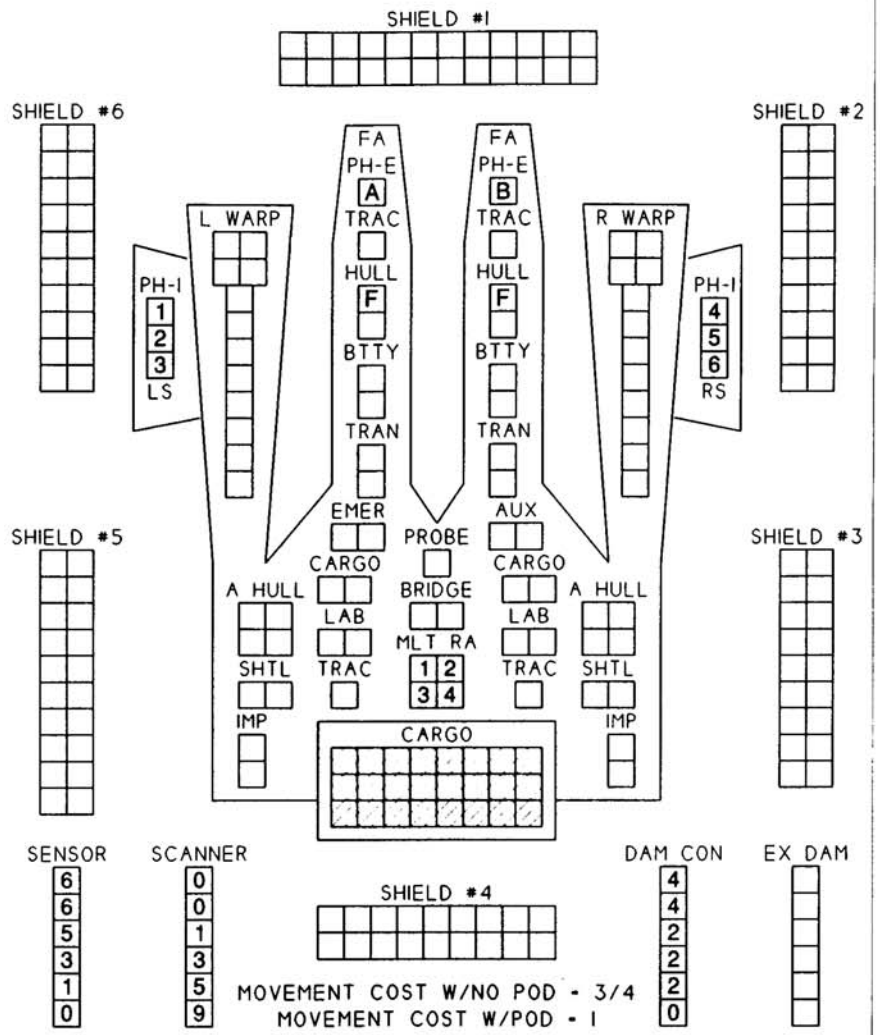
FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2



MOVEMENT COST W/NO POD - 3/4
MOVEMENT COST W/POD - 1

BOXES PRESENT WITH THE CARGO POD

WARP ENERGY MOVEMENT COST - 3/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	3	3	4	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23
Fract	3/4	1 1/2	2 1/4	3	3 3/4	4 1/2	5 1/4	6	6 3/4	7 1/2	8 1/4	9	9 3/4	10 1/2	11 1/4	12	12 3/4	13 1/2	14 1/4	15	15 3/4	16 1/2	17 1/4	18	18 3/4	19 1/2	20 1/4	21	21 3/4	22 1/2

COLDARIN LIGHT CRUISER

CREW UNITS

10 / 20 / 30

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D

TURN MODE		SPEED
C	1	2-4
	2	5-9
	3	10-14
HET	4	15-20
	5	21-27
BD	6	28+

SHIP DATA TABLE		
TYPE	=	CL
POINT VALUE	=	110
BREAKDOWN	=	5-6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R207.5
PLUS REFIT	=	+ 4
RAMIRS	=	+ 6
CARGO SKID	=	+ 8/2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF L R LR RR

FA = LF + RF
RA = LR + RR
LS = LF + L + LR
RS = RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

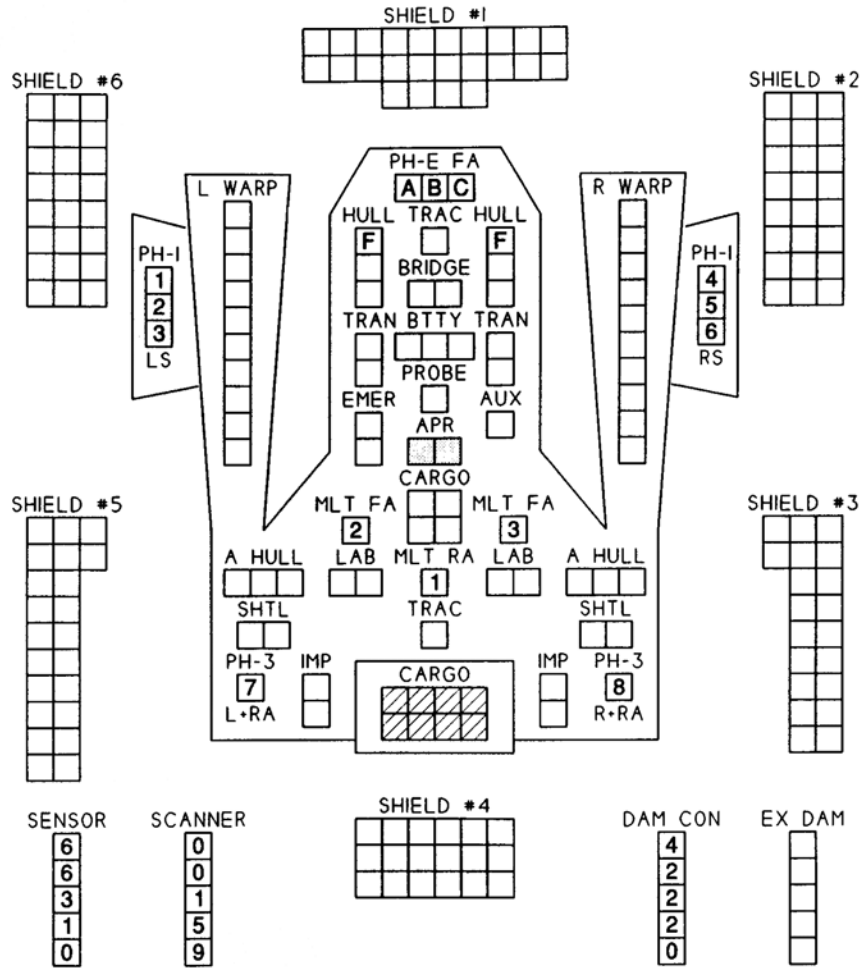
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1
2
3



SHADED BOXES ARE PRESENT ON THE PLUS REFIT

BOXES PRESENT WITH THE CARGO SKID

WARP ENERGY MOVEMENT COST - 2/3 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	2	3	4	4	5	6	6	7	8	8	9	10	10	11	12	12	13	14	14	15	16	16	17	18	18	19	20	20
Fract	2/3	1 1/3	2	2 2/3	3 1/3	4	4 2/3	5 1/3	6	6 2/3	7 1/3	8	8 2/3	9 1/3	10	10 2/3	11 1/3	12	12 2/3	13 1/3	14	14 2/3	15 1/3	16	16 2/3	17 1/3	18	18 2/3	19 1/3	20

COLDARIN DESTROYER

CREW UNITS

			✳						10
									20

BOARDING PARTIES

					6

PROBES

				5

TRANSPORTER BOMBS

		D	D

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

SHIP DATA TABLE	
TYPE	= DD
POINT VALUE	= 99
BREAKDOWN	= 5-6
SHIELD COST	= 1/2+1/2
LIFE SUPPORT	= 1/2
SIZE CLASS	= 4
REFERENCE	= R207.6
PLUS REFIT	= + 4
RAMIRS	= + 6
CARGO SKID	= + 6/1

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF L R LR RR

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

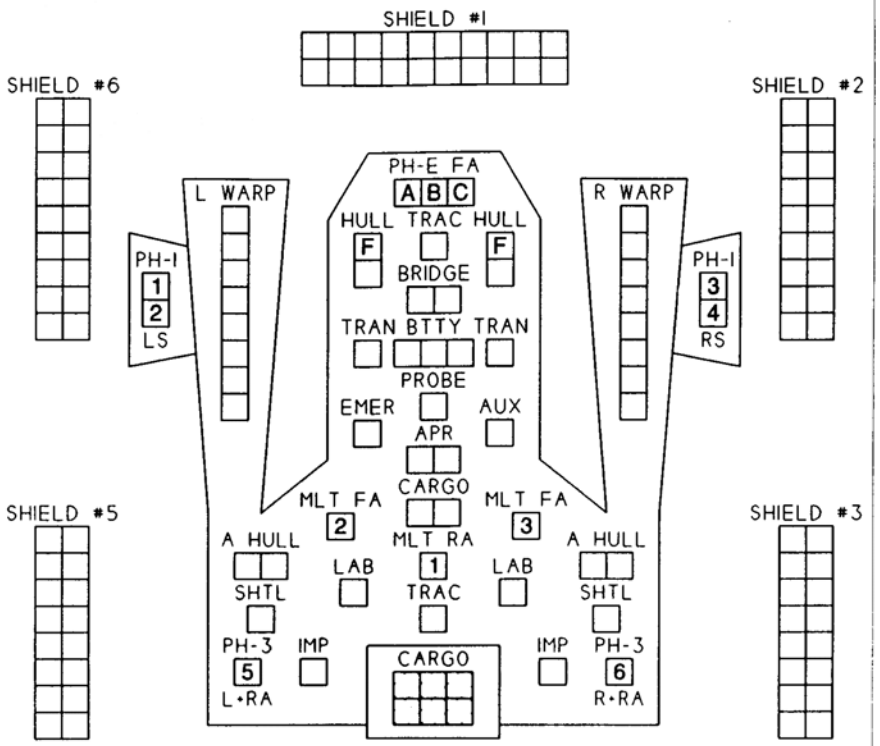
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1	
2	
3	



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

COLDARIN MISSILE DESTROYER

CREW UNITS

10 20

BOARDING PARTIES

6

PROBES

5

TRANSPORTER BOMBS

D D

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

SHIP DATA TABLE	
TYPE	= DDM
POINT VALUE	= 90
BREAKDOWN	= 5-6
SHIELD COST	= 1/2+1/2
LIFE SUPPORT	= 1/2
SIZE CLASS	= 4
REFERENCE	= R207.13
PLUS REFIT	= + 4
RAMIRS	= + 6
CARGO SKID	= + 6/1

THIS SHIP HAS DOUBLE ITS SENSOR RATING IN SEEKING WEAPON CONTROL

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

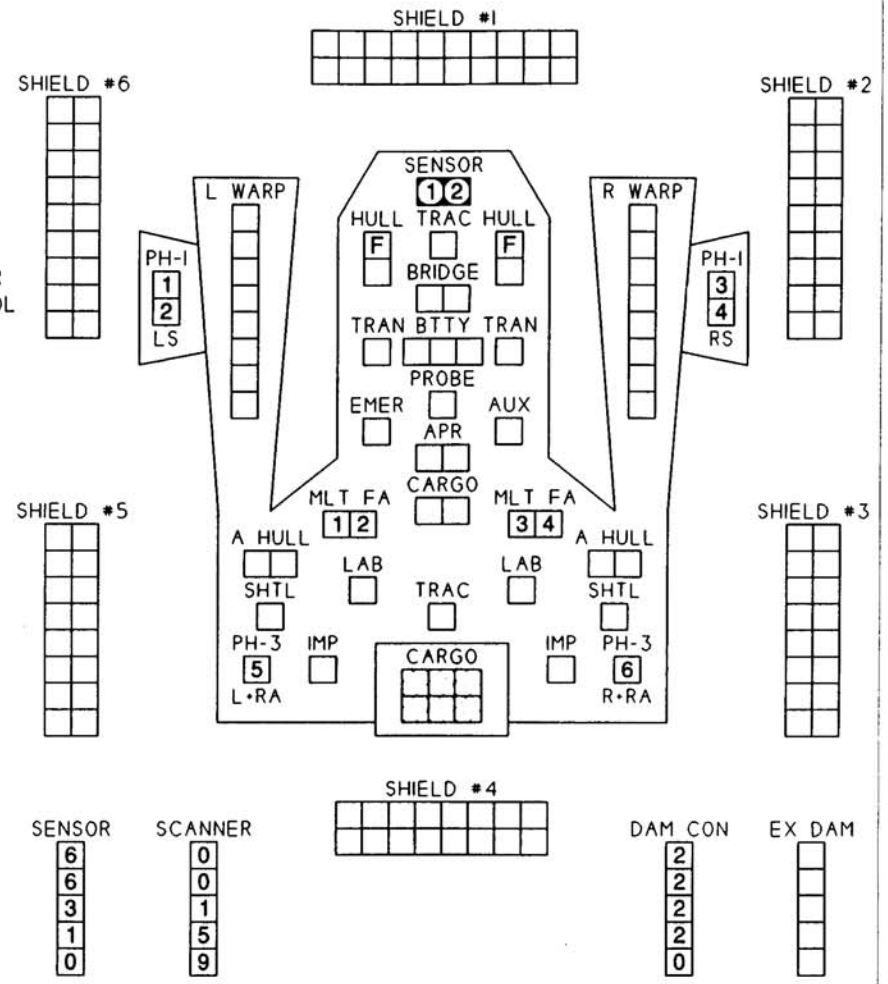
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

SCOUT FUNCTIONS SUMMARY
21 LENDING ECM OR ECCM
22 BREAKING LOCK-ONS
23 ATTRACTING MISSILES
24 CONTROLLING SEEKING WEAPONS
25 IDENTIFYING MISSILES
26 DETECTING MINES
27 GATHERING SCIENCE INFORMATION
28 SELF-PROTECTION JAMMING
29 TACTICAL INTELLGENCE

MISSILE LAUNCH TUBES

1
2
3
4



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

COLDARIN SCOUT

CREW UNITS

									10
			✳						20

BOARDING PARTIES

					6

PROBES

				5

TRANSPORTER BOMBS

		D	D

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

SHIP DATA TABLE	
TYPE	= SC
POINT VALUE	= 100/96
BREAKDOWN	= 5-6
SHIELD COST	= 1/2+1/2
LIFE SUPPORT	= 1/2
SIZE CLASS	= 4
REFERENCE	= R207.11
PLUS REFIT	= + 4
RAMIRS	= + 6
CARGO SKID	= + 6/1

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE I OFFENSIVE PHASER TABLE

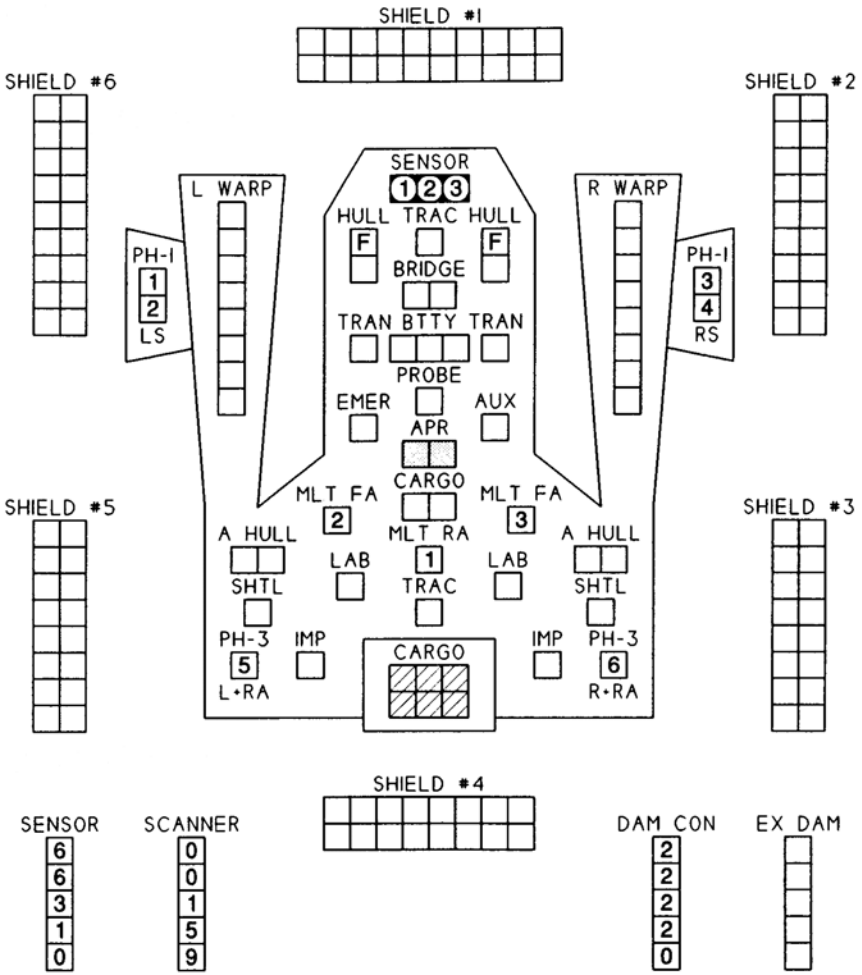
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

FA = LF + RF
RA = LR + RR
LS = LF + L + LR
RS = RF + R + RR

SCOUT FUNCTIONS SUMMARY
21 LENDING ECM OR ECCM
22 BREAKING LOCK-ONS
23 ATTRACTING MISSILES
24 CONTROLLING SEEKING WEAPONS
25 IDENTIFYING MISSILES
26 DETECTING MINES
27 GATHERING SCIENCE INFORMATION
28 SELF-PROTECTION JAMMING
29 TACTICAL INTELLGENCE

MISSILE LAUNCH TUBES

1	
2	
3	



▒ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

COLDARIN FRIGATE

CREW UNITS

									10
			✳						

BOARDING PARTIES

				5

PROBES

				5

TRANSPORTER BOMBS

		D	D

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

SHIP DATA TABLE		
TYPE	=	FF
POINT VALUE	=	72
BREAKDOWN	=	6
SHIELD COST	=	1/2+1/2
LIFE SUPPORT	=	1/2
SIZE CLASS	=	4
REFERENCE	=	R207.7
PLUS REFIT	=	+ 2
RAMIRS	=	+ 4
CARGO SKID	=	+ 4/1

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES
THIS SHIP HAS TWO SHUTTLE BAYS		

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

FA - LF + RF
LS - LF + L + LR
RS - RF + R + RR

TYPE E EXTENDED RANGE PHASER TABLE

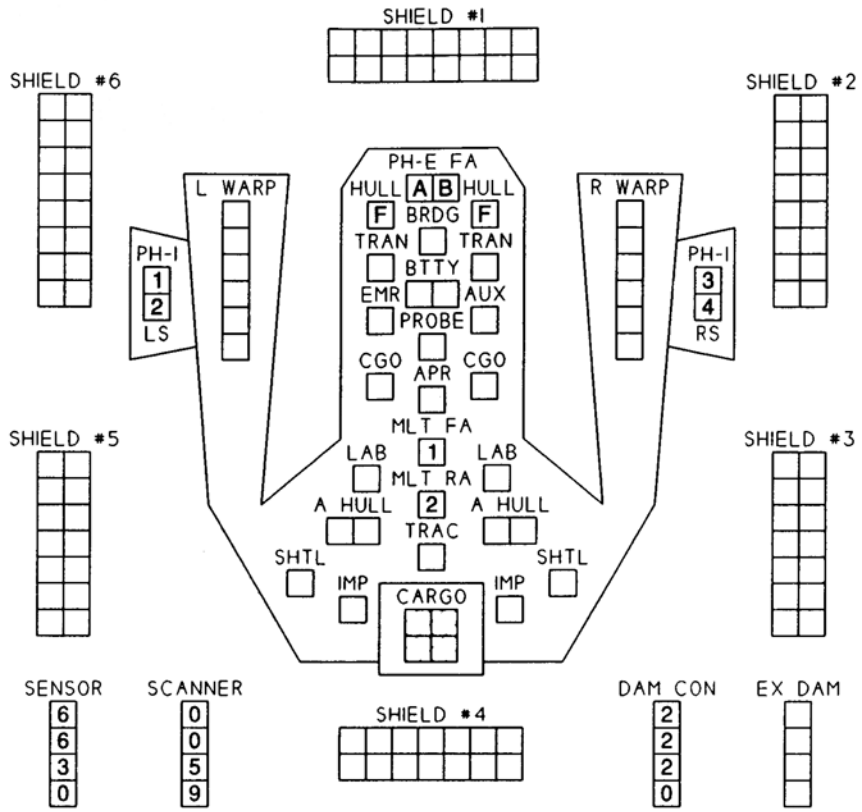
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MISSILE LAUNCH TUBES

1	
2	



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

▨ BOXES PRESENT WITH THE CARGO SKID

WARP ENERGY MOVEMENT COST - 1/3 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10	10
Fract	1/3	2/3	1	1 1/3	1 2/3	2	2 1/3	2 2/3	3	3 1/3	3 2/3	4	4 1/3	4 2/3	5	5 1/3	5 2/3	6	6 1/3	6 2/3	7	7 1/3	7 2/3	8	8 1/3	8 2/3	9	9 1/3	9 2/3	10

COLDARIN SURVEY CRUISER

CREW UNITS

			X						10
									20
									30

BOARDING PARTIES

									10

PROBES

1									10
2									10

TRANSPORTER BOMBS

				D	D	D	D		

TURN MODE		SPEED
D	1	2-4
	2	5-8
	3	9-12
HET	4	13-17
	5	18-24
BD	6	25+

MISSILE LAUNCH TUBES

1	
2	

SHIP DATA TABLE	
TYPE	= SRV
POINT VALUE	= 155/120
BREAKDOWN	= 4-6
SHIELD COST	= 1-1
LIFE SUPPORT	= 1
SIZE CLASS	= 3
REFERENCE	= R207.10
RAMIRS	= + 8
CARGO POD	= + 21/15

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS 3 SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4- 8	9- 15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

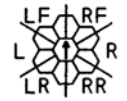
DIE ROLL	RANGE 0	1	2	3	4	5	6- 8	9- 15	16- 25	26- 50	51- 75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

TYPE E EXTENDED RANGE PHASER TABLE

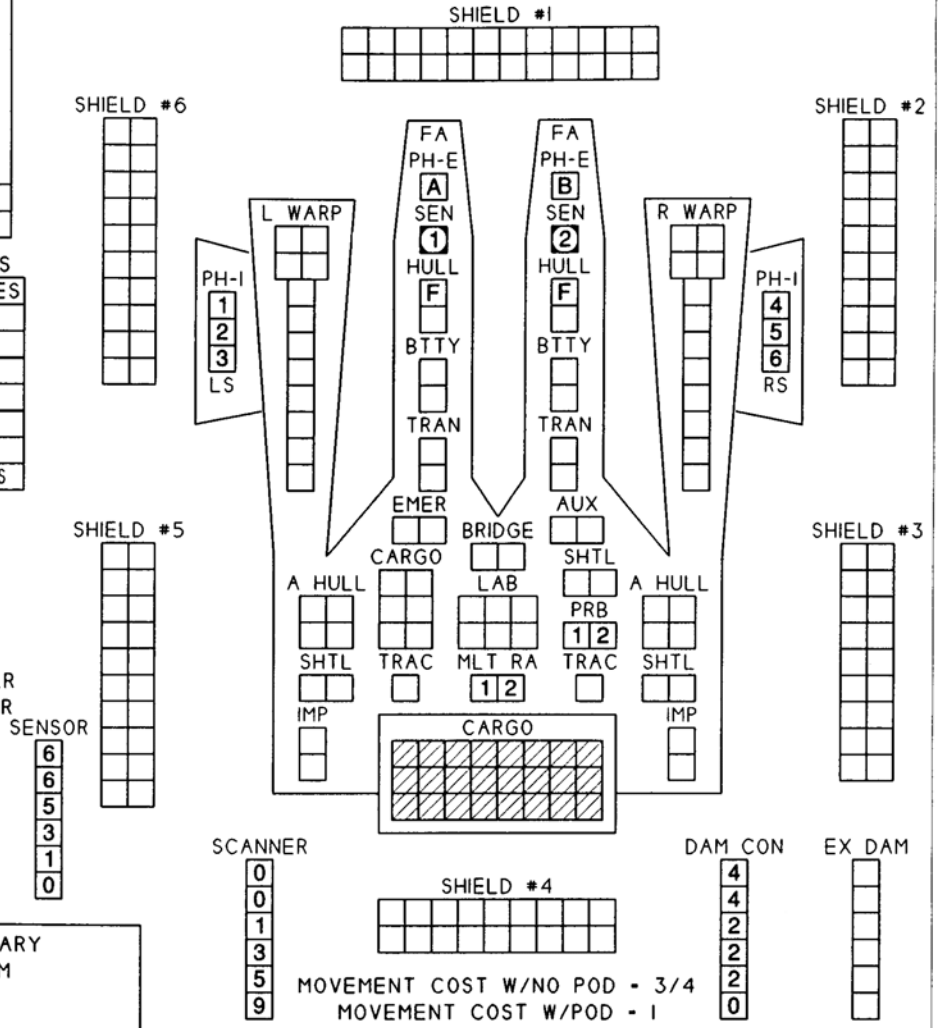
DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9- 15	16- 25	26- 50	51- 75	76- 100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2



FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR



MOVEMENT COST W/NO POD - 3/4
MOVEMENT COST W/POD - 1

▨ BOXES PRESENT WITH THE CARGO POD

SCOUT FUNCTIONS SUMMARY
21 LENDING ECM OR ECCM
22 BREAKING LOCK-ONS
23 ATTRACTING MISSILES
24 CONTROLLING SEEKING WEAPONS
25 IDENTIFYING MISSILES
26 DETECTING MINES
27 GATHERING SCIENCE INFORMATION
28 SELF-PROTECTION JAMMING
29 TACTICAL INTELLGENCE

WARP ENERGY MOVEMENT COST - 3/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	3	3	4	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23
Fract	¾	1½	2¼	3	3¾	4½	5¼	6	6¾	7½	8¼	9	9¾	10½	11¼	12	12¾	13½	14¼	15	15¾	16½	17¼	18	18¾	19½	20¼	21	21¾	22½

COLDARIN TUG

CREW UNITS

			X					10
								20
								30

BOARDING PARTIES

								10

PROBES

			5

TRANSPORTER BOMBS

				D	D	D	D

TURN MODE		SPEED
E	1	2-3
	2	4-6
	3	7-10
HET	4	11-14
	5	15-20
BD	6	21-29
	7	30+

SHIP DATA TABLE	
TYPE	= TUG
POINT VALUE	= 165/108
BREAKDOWN	= 3-6
SHIELD COST	= 1+1
LIFE SUPPORT	= 1
SIZE CLASS	= 3
REFERENCE	= R207.12
RAMIRS	= + 8
CARGO POD	= + 21/15

MISSILE LAUNCH TUBES

1	
2	
3	
4	

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

LF RF
L R
LR RR

FA - LF + RF
RA - LR + RR
LS - LF + L + LR
RS - RF + R + RR

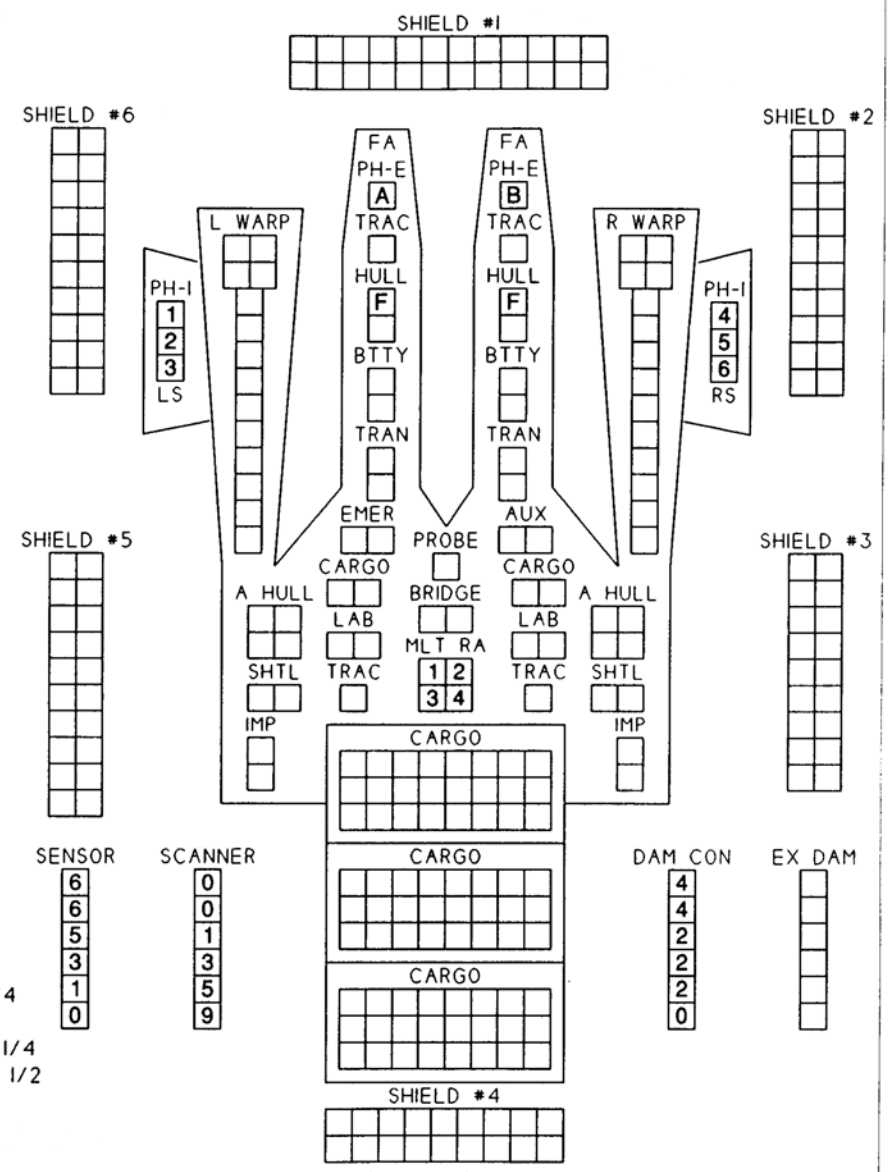
TYPE E EXTENDED RANGE PHASER TABLE

DIE ROLL	RANGE 0	1-2	3-4	5-6	7-8	9-15	16-25	26-50	51-75	76-100
1	-	8	7	6	5	5	4	3	2	1
2	-	7	6	5	5	4	3	2	1	1
3	-	5	5	4	4	4	3	1	0	0
4	-	4	4	4	4	3	2	0	0	0
5	-	4	4	4	3	3	1	0	0	0
6	-	4	3	3	2	2	0	0	0	0

TYPE E PHASER OVERLOAD

DIE ROLL	RANGE 0-2	3-4	5-6	7-8
1	-	10	9	8
2	-	8	7	7
3	-	7	6	6
4	-	5	5	5
5	-	5	5	4
6	-	3	3	2

MOVEMENT COST W/NO PODS - 3/4
MOVEMENT COST W/ONE POD - 1
MOVEMENT COST W/ TWO PODS - 1 1/4
MOVEMENT COST W/THREE PODS - 1 1/2



WARP ENERGY MOVEMENT COST - 3/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	3	3	4	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23
Fract	¾	1½	2¼	3	3¾	4½	5¼	6	6¾	7½	8¼	9	9¾	10½	11¼	12	12¾	13½	14¼	15	15¾	16½	17¼	18	18¾	19½	20¼	21	21¾	22½

KLUZZ DREADNOUGHT

CREW UNITS

		✳						10
								20
								30
								40

BOARDING PARTIES

								10

PROBES

			5

TRANSPORTER BOMBS

D	D	D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES
THIS SHIP HAS TWO SHUTTLE BAYS		

SHIP DATA TABLE

TYPE	=	DN
POINT VALUE	=	212
BREAKDOWN	=	5-6
SHIELD COST	=	1+3
LIFE SUPPORT	=	1+1/2
SIZE CLASS	=	2
REFERENCE	=	R206.7
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 6

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
C	1	2-4
	2	5-9
	3	10-14
HET	4	15-20
BD	5	21-27
	6	28+

TYPE I OFFENSIVE PHASER TABLE

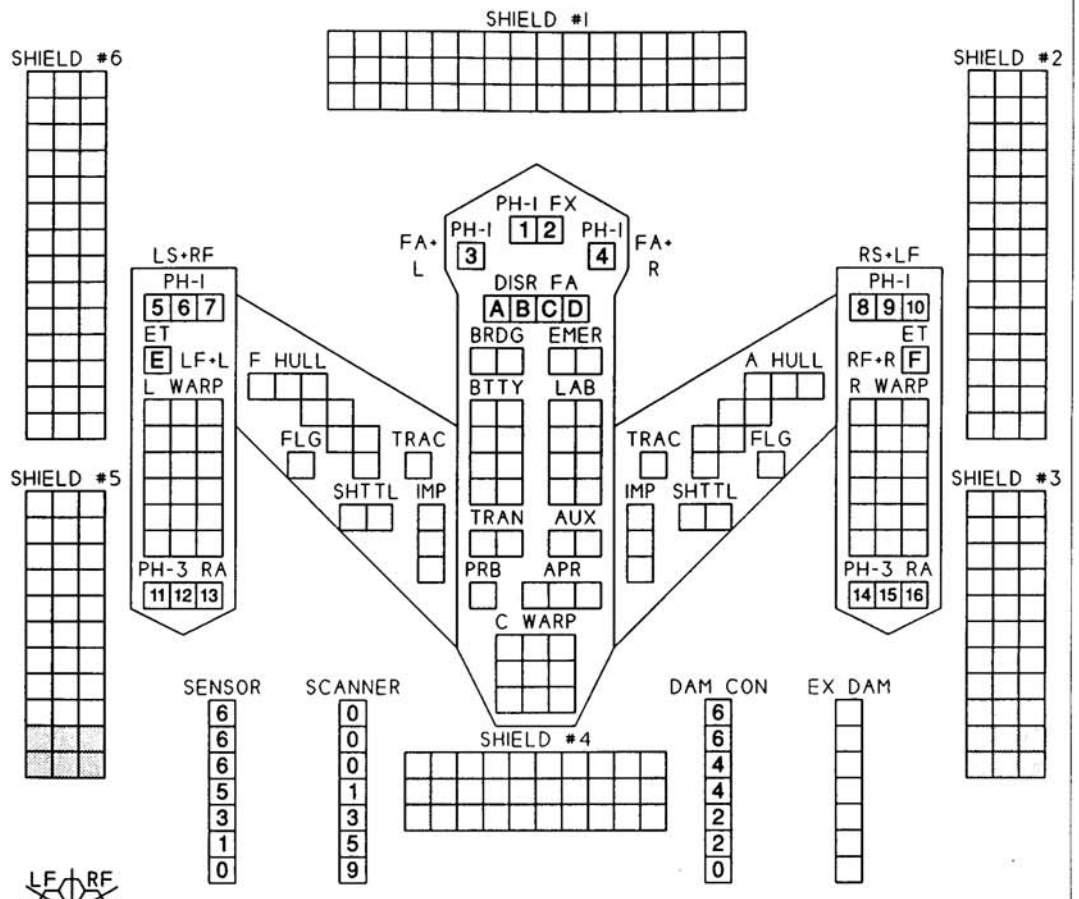
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

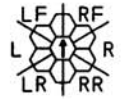
RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 1 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	42	44	45
Fract	1 1/2	3	4 1/2	6	7 1/2	9	10 1/2	12	13 1/2	15	16 1/2	18	19 1/2	21	22 1/2	24	25 1/2	27	28 1/2	30	31 1/2	33	34 1/2	36	37 1/2	39	40 1/2	42	43 1/2	45

KLUZZ TORPEDO DREADNOUGHT

CREW UNITS

			✳				10
							20
							30
							40

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

D	D	D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	DNT
POINT VALUE	=	220
BREAKDOWN	=	5-6
SHIELD COST	=	1•3
LIFE SUPPORT	=	1•1/2
SIZE CLASS	=	2
REFERENCE	=	R206.17
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
C	1 2-4
	2 5-9
	3 10-14
HET	4 15-20
BD	5 21-27
	6 28•

TYPE I OFFENSIVE PHASER TABLE

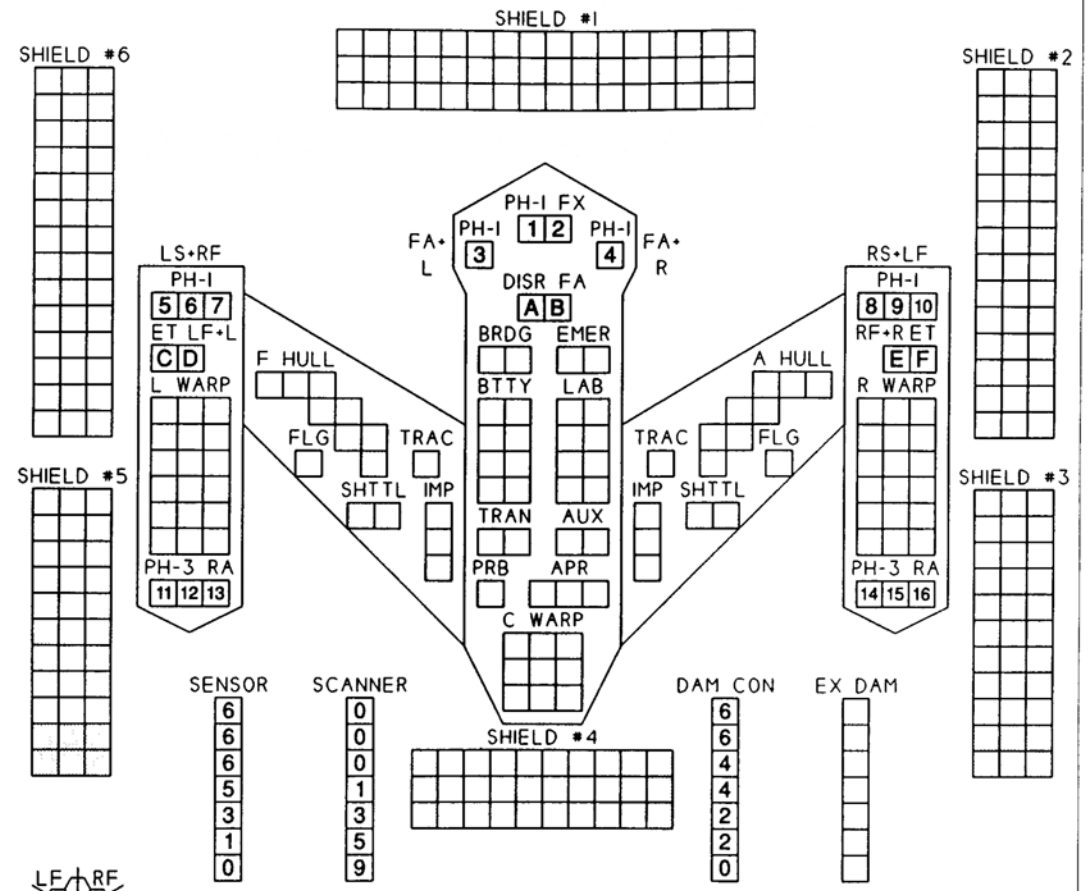
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 1 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	42	44	45
Fract	1½	3	4½	6	7½	9	10½	12	13½	15	16½	18	19½	21	22½	24	25½	27	28½	30	31½	33	34½	36	37½	39	40½	42	43½	45

KLUZZ HEAVY BATTLECRUISER

CREW UNITS

			*						10
									20
									30

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

D	D	D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	BCH
POINT VALUE	=	202
BREAKDOWN	=	5-6
SHIELD COST	=	1•3
LIFE SUPPORT	=	1•1/2
SIZE CLASS	=	2
REFERENCE	=	R206.8
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 6

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4- 8	9- 15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

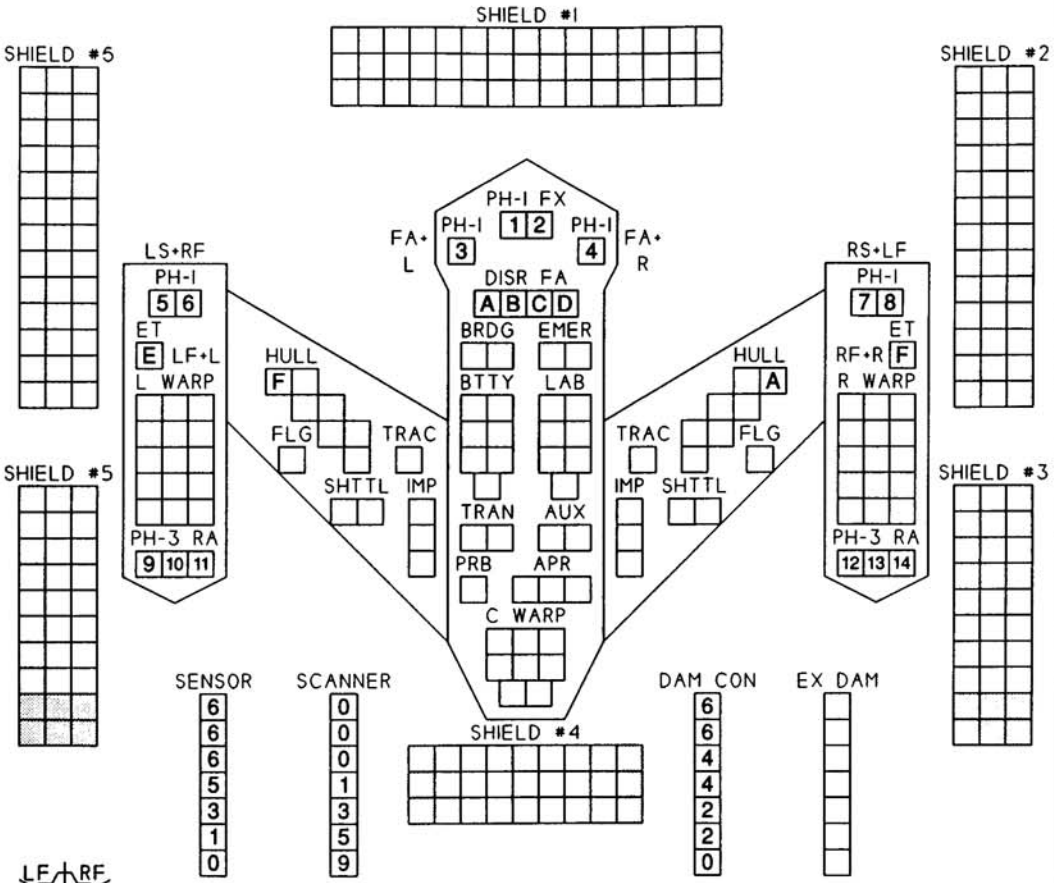
DIE ROLL	RANGE 0	1	2	3	4	5	6- 8	9- 15	16- 25	26- 50	51- 75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

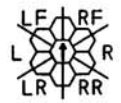
DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1





FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

WARP ENERGY MOVEMENT COST - 1 1/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	4	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23	24	25	27	28	29	30	32	33	34	35	37	38
Fract	1 1/4	2 1/2	3 3/4	5	6 1/4	7 1/2	8 3/4	10	11 1/4	12 1/2	13 3/4	15	16 1/4	17 1/2	18 3/4	20	21 1/4	22 1/2	23 3/4	25	26 1/4	27 1/2	28 3/4	30	31 1/4	32 1/2	33 3/4	35	36 1/2	37 3/4

KLUZZ TORPEDO BATTLECRUISER

CREW UNITS

			X						10
									20
									30

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

				D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS						NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	BCT
POINT VALUE	=	182
BREAKDOWN	=	6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.15
PLUS REFIT	=	+ 3

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

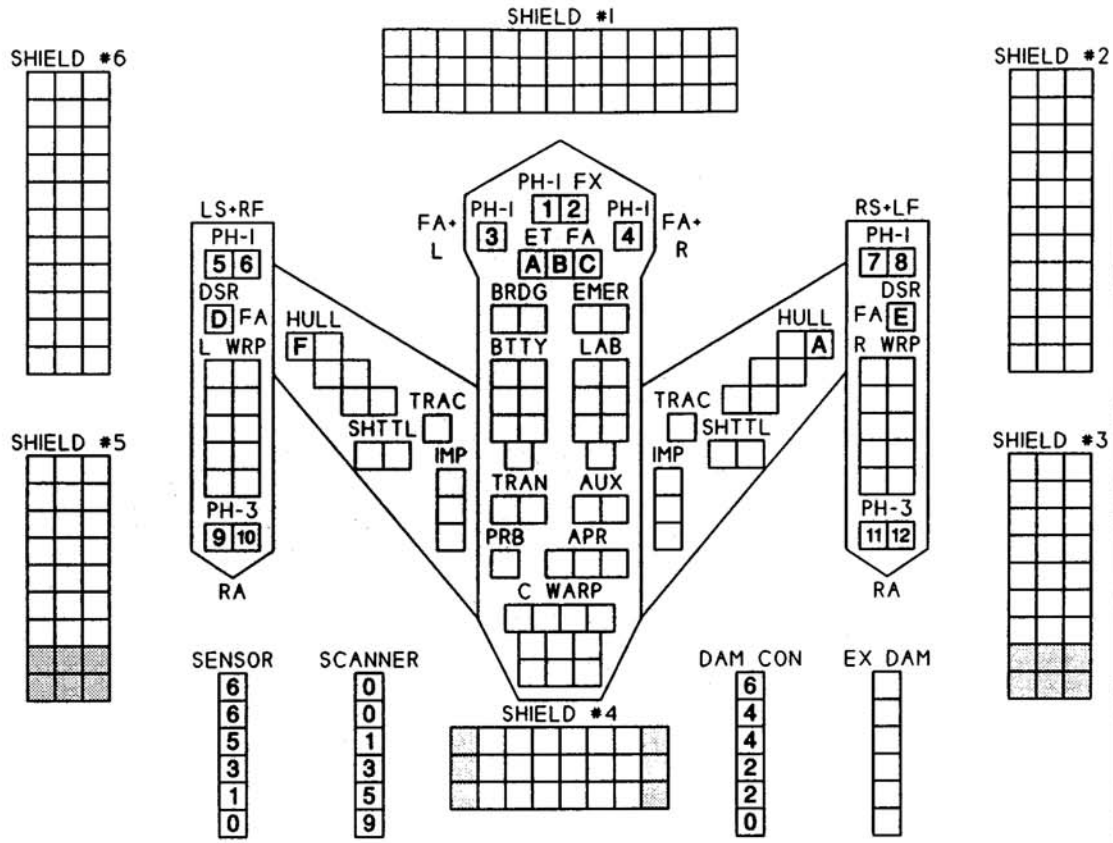
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

SHADED BOXES ARE PRESENT ON THE PLUS REFIT

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ H. TORP BATTLECRUISER

CREW UNITS

			✳						10
									20
									30

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

D	D	D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	= BCHT
POINT VALUE	= 206
BREAKDOWN	= 5-6
SHIELD COST	= 1•3
LIFE SUPPORT	= 1•1/2
SIZE CLASS	= 2
REFERENCE	= R206.16
PLUS REFIT	= + 3
EDCS REFIT	= + 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4- 8	9- 15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

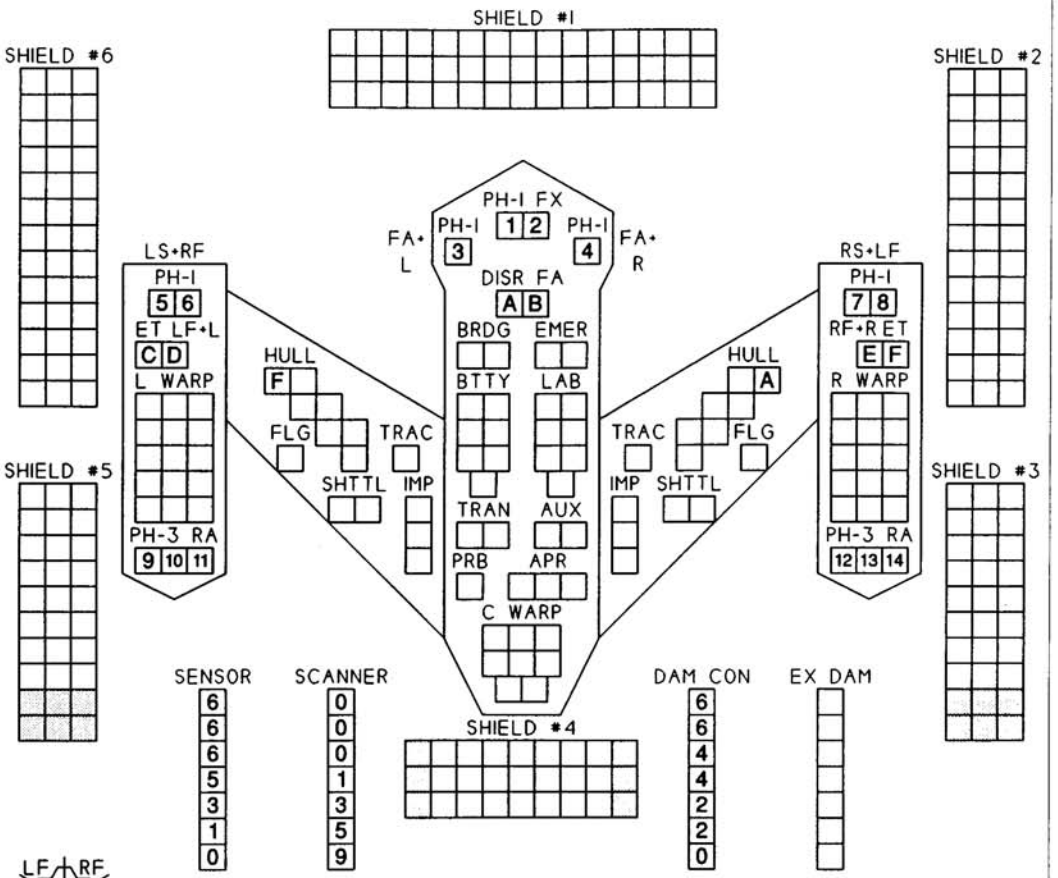
DIE ROLL	RANGE 0	1	2	3	4	5	6- 8	9- 15	16- 25	26- 50	51- 75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE, STD	0	5	4	4	3	3	2	2
DAMAGE, OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

SHADED BOXES ARE PRESENT ON THE PLUS REFIT

WARP ENERGY MOVEMENT COST - 1 1/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	4	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23	24	25	27	28	29	30	32	33	34	35	37	38
Fract	1 1/4	2 1/2	3 3/4	5	6 1/4	7 1/2	8 3/4	10	11 1/4	12 1/2	13 3/4	15	16 1/4	17 1/2	18 3/4	20	21 1/4	22 1/2	23 3/4	25	26 1/4	27 1/2	28 3/4	30	31 1/4	32 1/2	33 3/4	35	36 1/2	37 3/4

KLUZZ BATTLECRUISER

CREW UNITS

			X					10
								20
								30

BOARDING PARTIES

								10

PROBES

				5

TRANSPORTER BOMBS

						D	D	D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	BC
POINT VALUE	=	178
BREAKDOWN	=	6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.1
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 4

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
B 1	2-5
2	6-10
3	11-15
HET 4	16-21
5	22-28
BD 6	29+

TYPE I OFFENSIVE PHASER TABLE

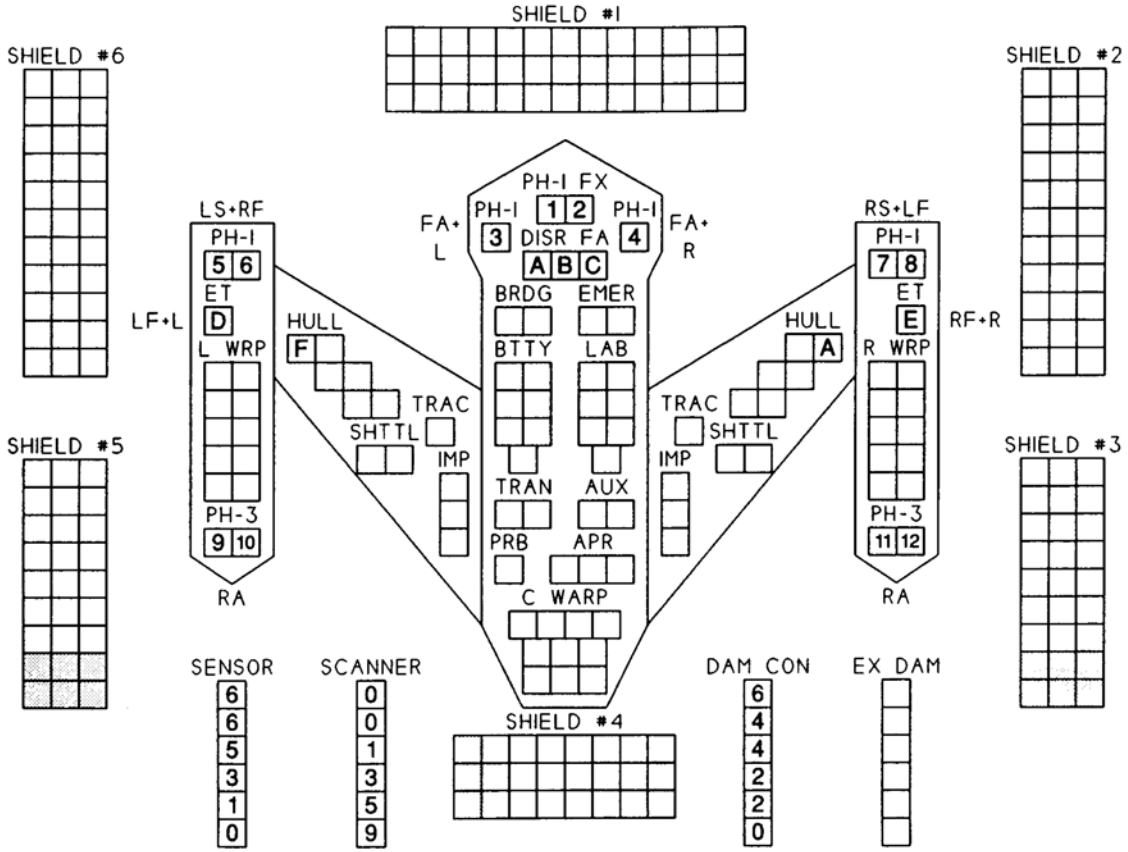
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

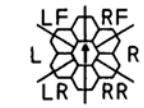
DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1





FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

SHADED BOXES ARE PRESENT ON THE PLUS REFIT

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ COMMAND CRUISER

CREW UNITS

10
20
30

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	CC
POINT VALUE	=	156
BREAKDOWN	=	6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.2
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
B	2-5
1	6-10
2	11-15
HET 3	16-21
4	22-28
BD 5	29+
6	

TYPE I OFFENSIVE PHASER TABLE

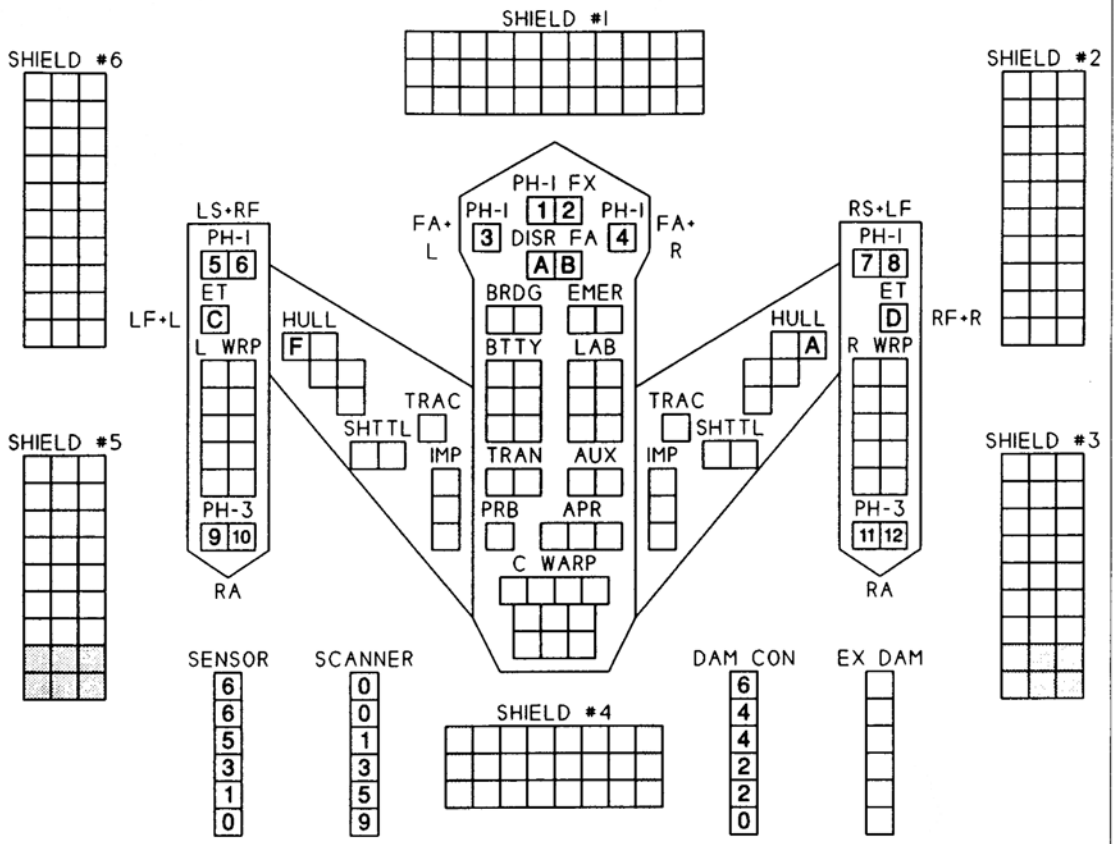
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

SHADED BOXES ARE PRESENT ON THE PLUS REFIT

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ COMMAND TORPEDO CRUISER

CREW UNITS

10 20 30

BOARDING PARTIES

10

PROBES

5

TRANSPORTER BOMBS

D D D D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	CCT
POINT VALUE	=	164
BREAKDOWN	=	6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.14
PLUS REFIT	=	+ 3

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

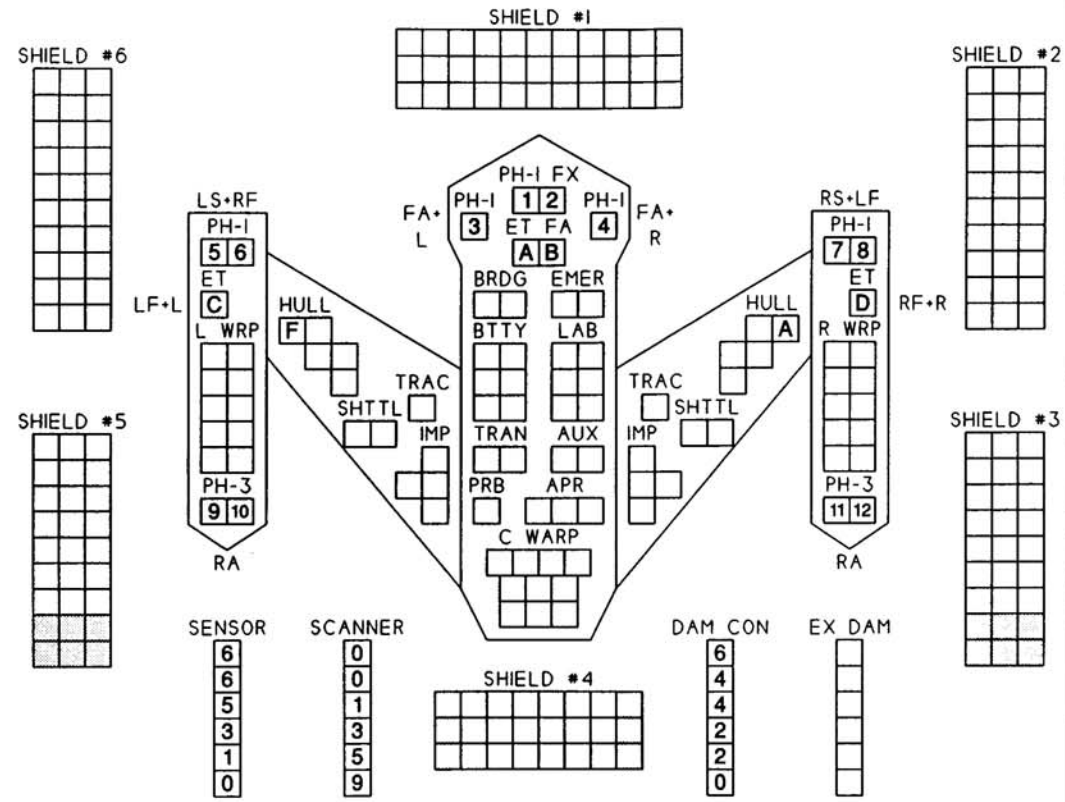
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ HEAVY CRUISER

CREW UNITS

			✳					10
								20
								30

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

				D	D	D	D

SHIP DATA TABLE

TYPE	=	CA
POINT VALUE	=	148
BREAKDOWN	=	6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.3
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

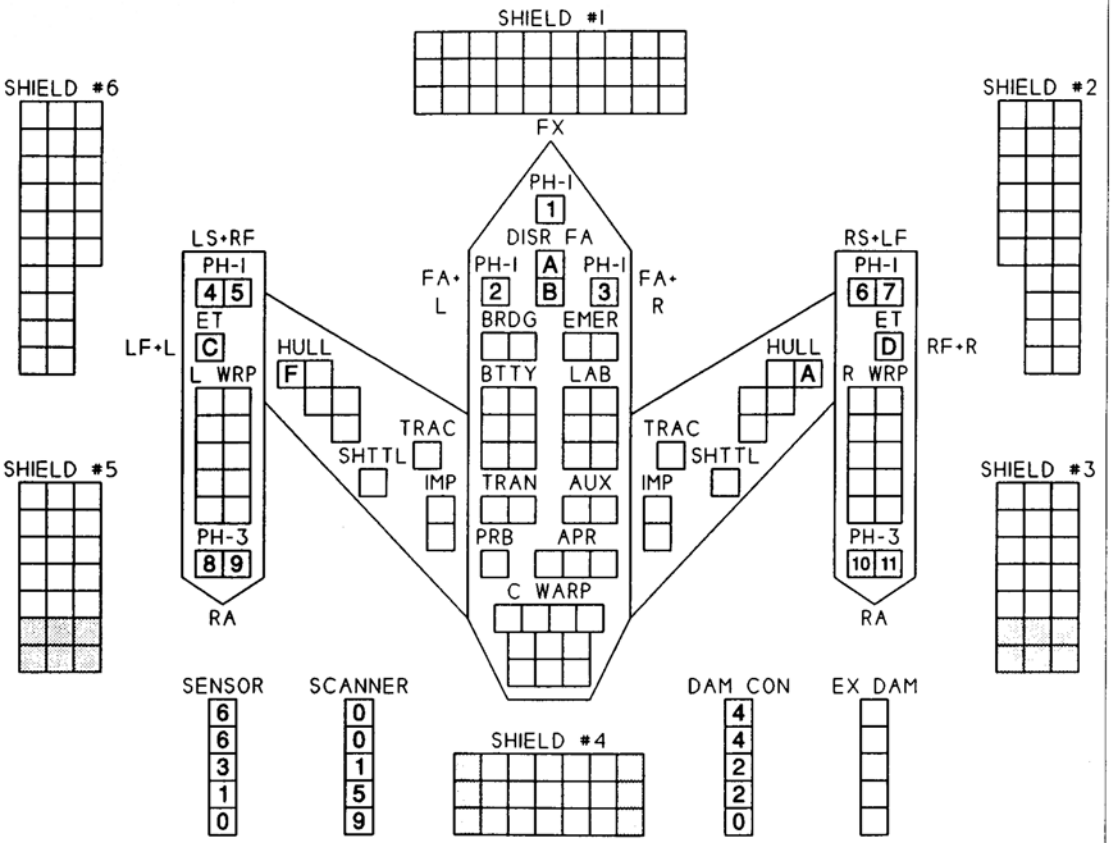
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ HEAVY TORPEDO CRUISER

CREW UNITS

			✳					10
								20
								30

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

BOARDING PARTIES

									10

PROBES

				5

TRANSPORTER BOMBS

				D	D	D	D

SHIP DATA TABLE

TYPE	=	CAT
POINT VALUE	=	154
BREAKDOWN	=	6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.13
PLUS REFIT	=	+ 3

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
B	1 2-5
	2 6-10
	3 11-15
HET	4 16-21
	5 22-28
BD	6 29+

TYPE I OFFENSIVE PHASER TABLE

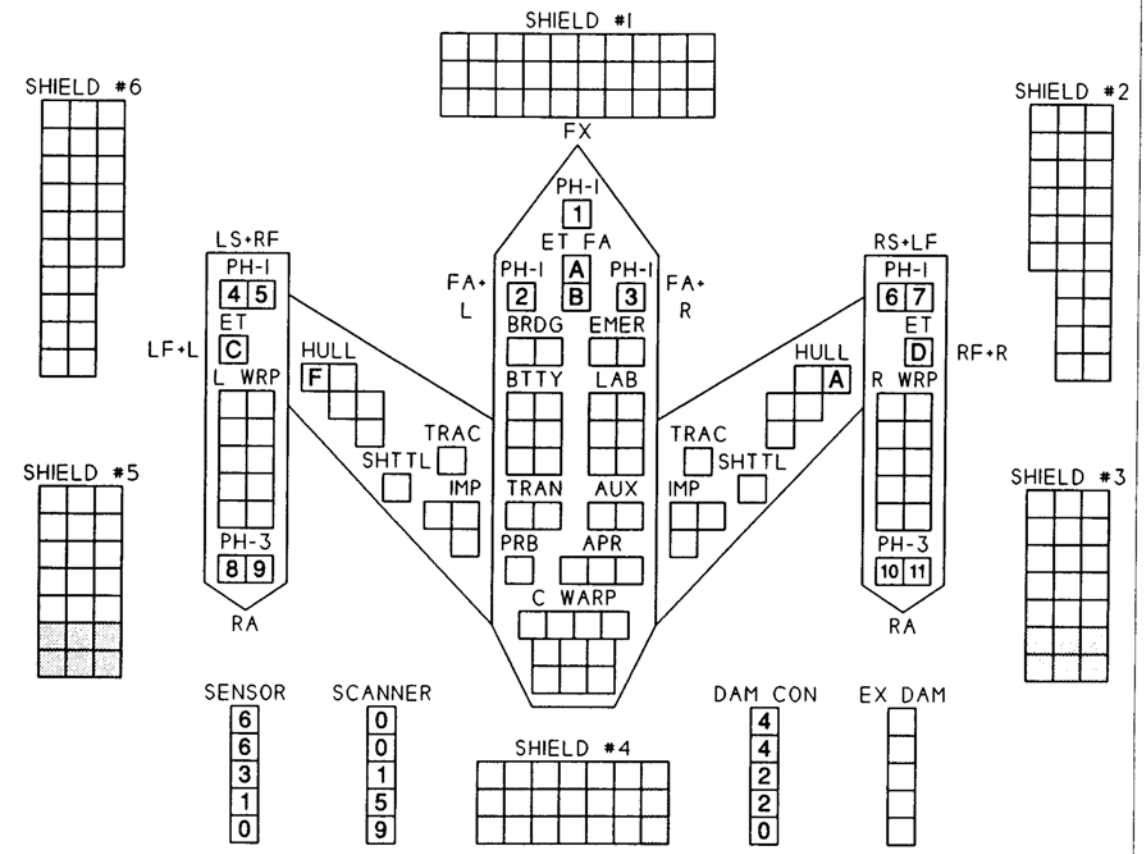
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

MOVEMENT COST - 1
HET COST - 5
EM COST - 6

KLUZZ CRUISER

CREW UNITS

		✳						10
								20
								30

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES
THIS SHIP HAS TWO SHUTTLE BAYS		

BOARDING PARTIES: 10

PROBES: 5

TRANSPORTER BOMBS: D D D D

SHIP DATA TABLE

TYPE	=	C
POINT VALUE	=	123
BREAKDOWN	=	6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.4
PLUS REFIT	=	+ 3
EDCS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
A	1
HET	2
	3
	4
BD	5

TURN MODE	SPEED
A	1
	2
	3
	4
	5

TURN MODE	SPEED
	2-6
HET	7-12
	13-19
	20-26
BD	27+

TYPE I OFFENSIVE PHASER TABLE

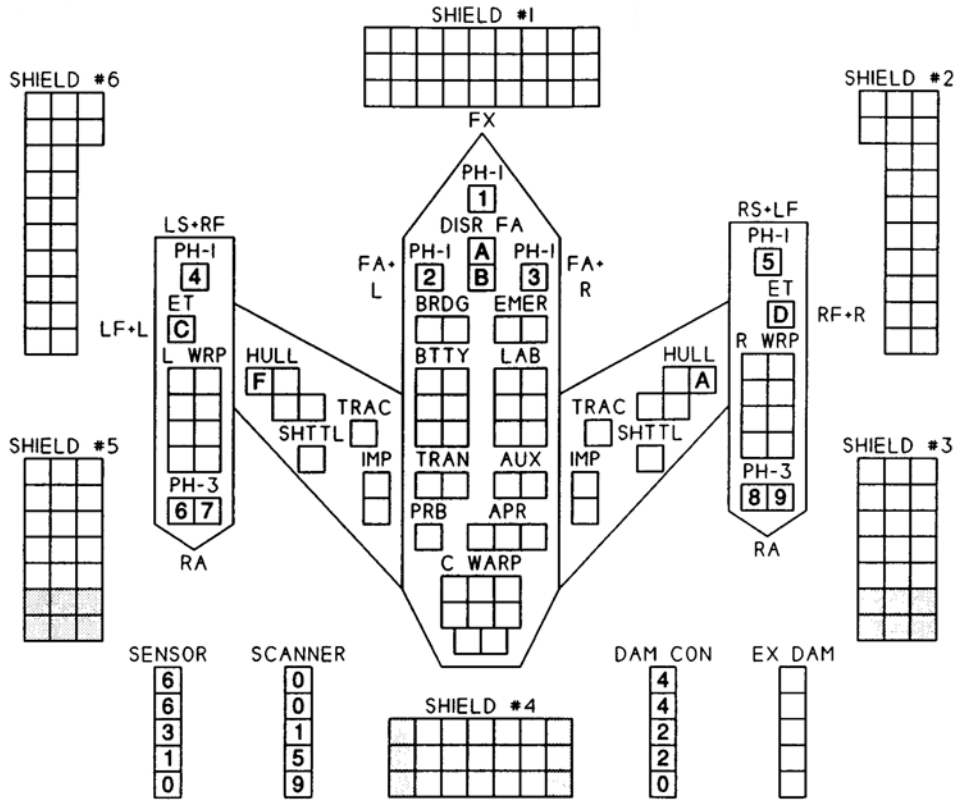
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

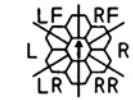
RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 3/4 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	3	3	4	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23
Fract	¾	1½	2¼	3	3¾	4½	5¼	6	6¾	7½	8¼	9	9¾	10½	11¼	12	12¾	13½	14¼	15	15¾	16½	17¼	18	18¾	19½	20¼	21	21¾	22½

KLUZZ DESTROYER

CREW UNITS

			X						10
									20

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

BOARDING PARTIES

							8

PROBES

				5

TRANSPORTER BOMBS

		D	D

SHIP DATA TABLE

TYPE	=	DD
POINT VALUE	=	93
BREAKDOWN	=	6
SHIELD COST	=	1/2+1/2
LIFE SUPPORT	=	1/2
SIZE CLASS	=	4
REFERENCE	=	R206.5
PLUS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4- 8	9- 15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
A	1
	2
HET	3
	4
BD	5

SPEED
2-6
7-12
13-19
20-26
27+

TYPE I OFFENSIVE PHASER TABLE

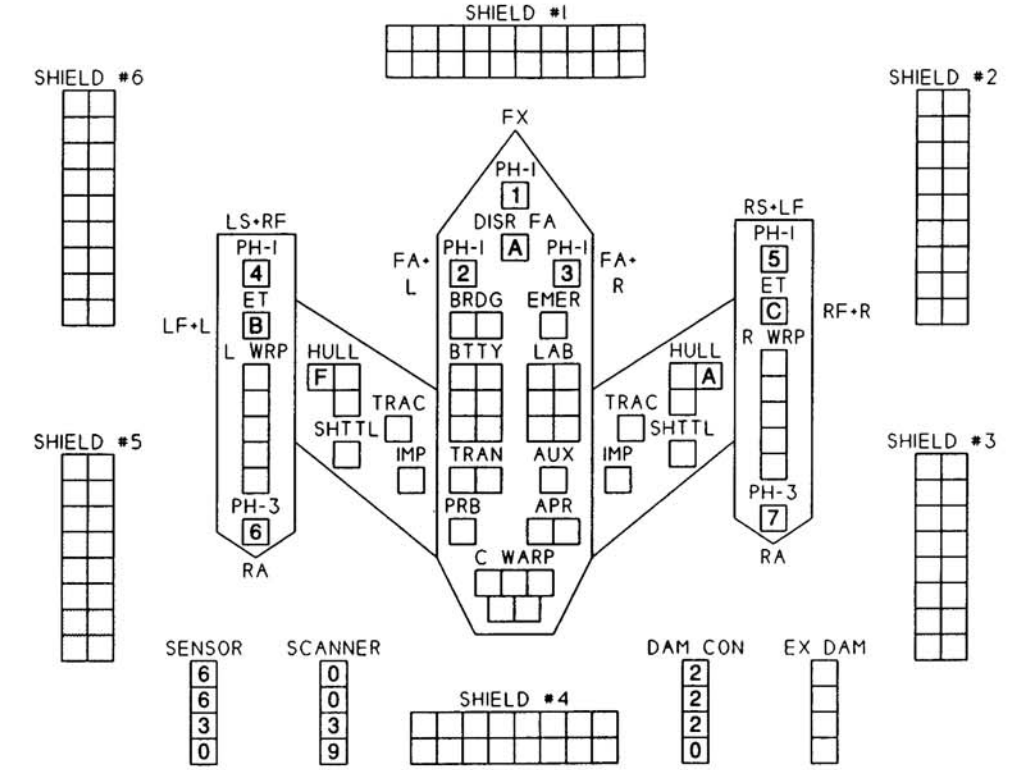
DIE ROLL	RANGE 0	1	2	3	4	5	6- 8	9- 15	16- 25	26- 50	51- 75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

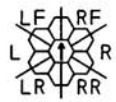
RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

KLUZZ TORPEDO DESTROYER

CREW UNITS

			✳						10
									20

BOARDING PARTIES

							8

PROBES

				5

TRANSPORTER BOMBS

		D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	= DDT
POINT VALUE	= 98
BREAKDOWN	= 6
SHIELD COST	= 1/2+1/2
LIFE SUPPORT	= 1/2
SIZE CLASS	= 4
REFERENCE	= R206.12
PLUS REFIT	= + 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
A	1 — 2-6
HET	2 — 7-12
	3 — 13-19
BD	4 — 20-26
	5 — 27+

TYPE I OFFENSIVE PHASER TABLE

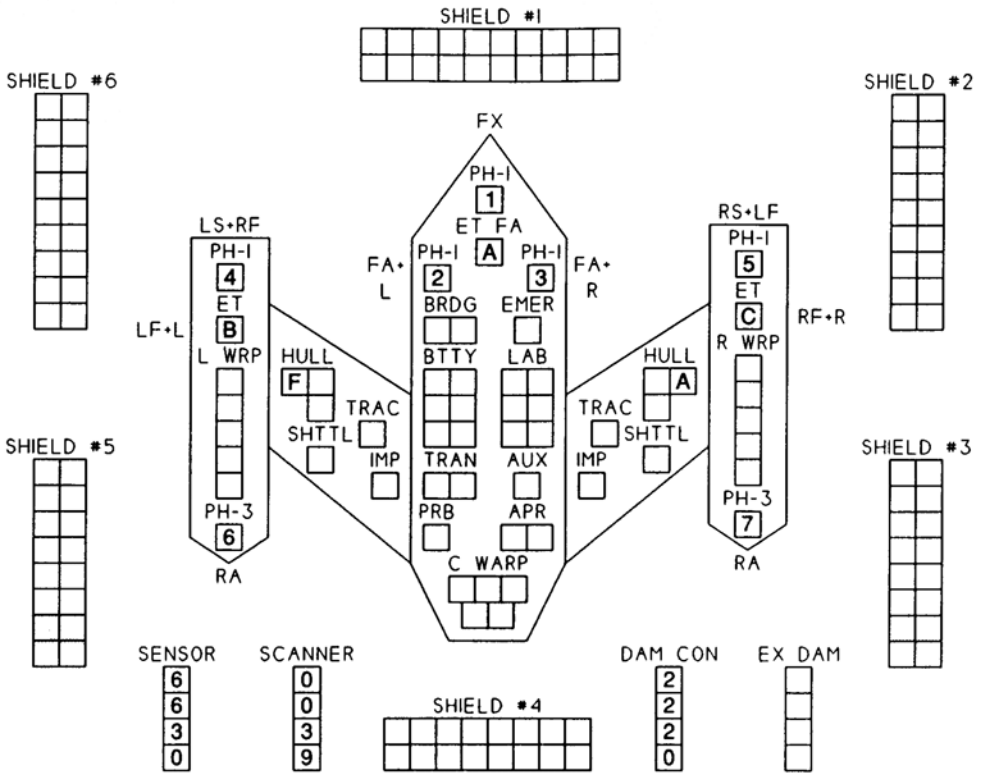
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

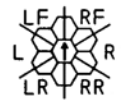
RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT



FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

KLUZZ SCOUT

CREW UNITS

									10
									20

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

BOARDING PARTIES

							8

PROBES

				5

TRANSPORTER BOMBS

		D	D

SHIP DATA TABLE

TYPE	=	SC
POINT VALUE	=	115/87
BREAKDOWN	=	6
SHIELD COST	=	1/2+1/2
LIFE SUPPORT	=	1/2
SIZE CLASS	=	4
REFERENCE	=	R206.10
PLUS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
A	1 2-6
HET	2 7-12
	3 13-19
BD	4 20-26
	5 27+

TYPE I OFFENSIVE PHASER TABLE

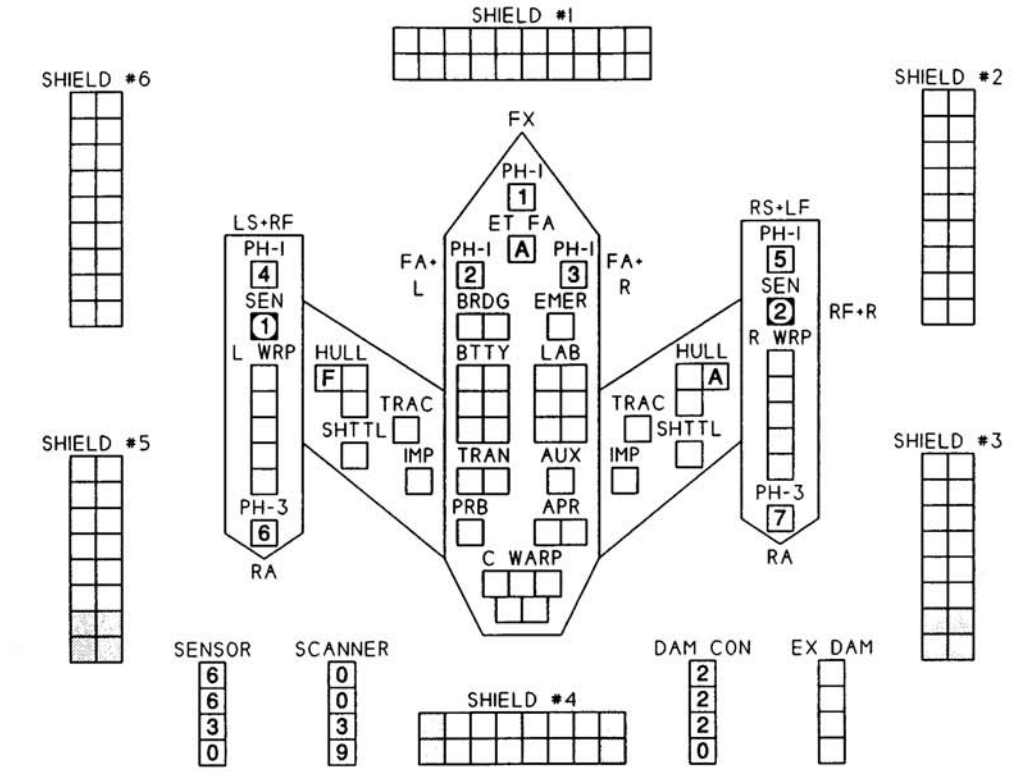
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE. STD	0	5	4	4	3	3	2	2
DAMAGE. OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

SCOUT FUNCTIONS SUMMARY
21 LENDING ECM OR ECCM
22 BREAKING LOCK-ONS
23 ATTRACTING MISSILES
24 CONTROLLING SEEKING WEAPONS
25 IDENTIFYING MISSILES
26 DETECTING MINES
27 GATHERING SCIENCE INFORMATION
28 SELF-PROTECTION JAMMING
29 TACTICAL INTELLGENCE

WARP ENERGY MOVEMENT COST - 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12	12	13	13	14	14	15	15
Fract	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15

KLUZZ FRIGATE

CREW UNITS

									10
			✳						

BOARDING PARTIES

					6

PROBES

				5

TRANSPORTER BOMBS

		D	D

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

SHIP DATA TABLE

TYPE	=	FF
POINT VALUE	=	68
BREAKDOWN	=	6
SHIELD COST	=	1/2+1/2
LIFE SUPPORT	=	1/2
SIZE CLASS	=	4
REFERENCE	=	R206.6
PLUS REFIT	=	+ 2

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
AA	1 2-8
HET	2 9-16
	3 17-24
BD	4 25+

TYPE I OFFENSIVE PHASER TABLE

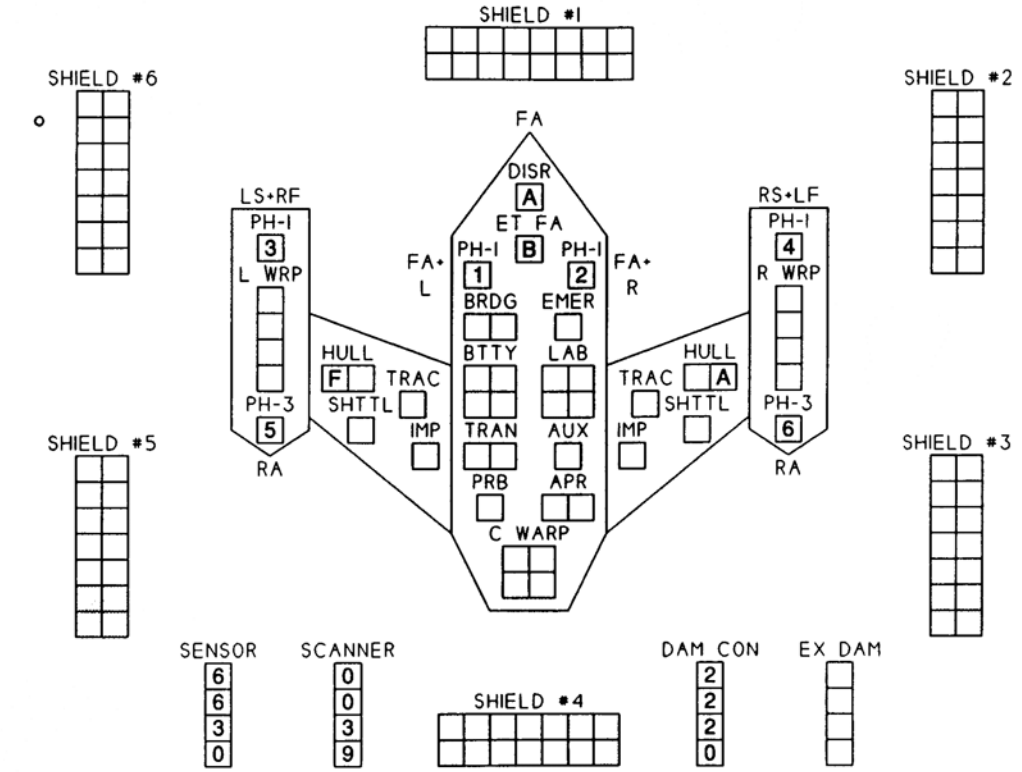
DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE, STD	0	5	4	4	3	3	2	2
DAMAGE, OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



☐ SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA = LF + RF
RA = LR + RR
FX = L + LF + RF + R
LS = LF + L + LR
RS = RF + R + RR

WARP ENERGY MOVEMENT COST - 1/3 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	10	10	10
Fract	1/3	2/3	1	1 1/3	1 2/3	2	2 1/3	2 2/3	3	3 1/3	3 2/3	4	4 1/3	4 2/3	5	5 1/3	5 2/3	6	6 1/3	6 2/3	7	7 1/3	7 2/3	8	8 1/3	8 2/3	9	9 1/3	9 2/3	10

KLUZZ SURVEY CRUISER

CREW UNITS

		✳						10
								20
								30

BOARDING PARTIES

								10

TRANSPORTER BOMBS

				D	D	D	D	

PROBES

				5

PROBES

					5

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

SHIP DATA TABLE

TYPE	=	SRV
POINT VALUE	=	167/110
BREAKDOWN	=	6
SHIELD COST	=	1•1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.9
PLUS REFIT	=	+ 3

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4- 8	9- 15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE	SPEED
A	2-6
HET	7-12
	13-19
	20-26
BD	27•

TYPE I OFFENSIVE PHASER TABLE

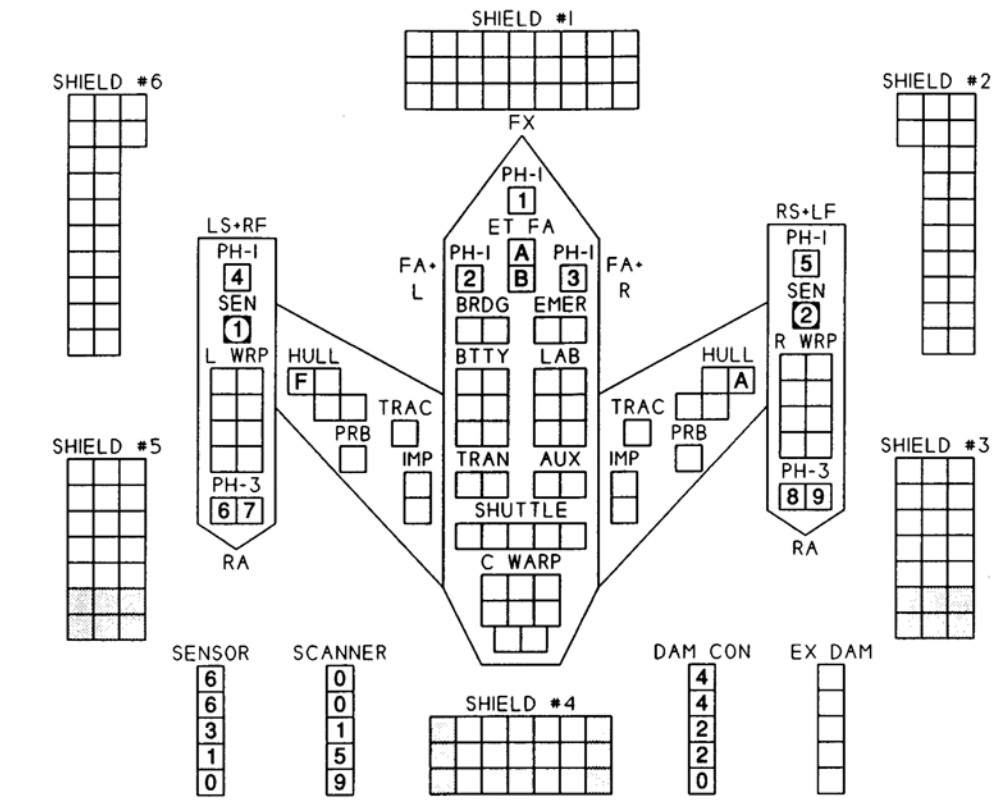
DIE ROLL	RANGE 0	1	2	3	4	5	6- 8	9- 15	16- 25	26- 50	51- 75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

DISRUPTOR TABLE

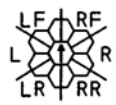
RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE, STD	0	5	4	4	3	3	2	2
DAMAGE, OVLD	10	10	8	8	6	0	0	0

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1



SHADED BOXES ARE PRESENT ON THE PLUS REFIT



FA • LF + RF
RA • LR + RR
FX • L + LF + RF + R
LS • LF + L + LR
RS • RF + R + RR

SCOUT FUNCTIONS SUMMARY
21 LENDING ECM OR ECCM
22 BREAKING LOCK-ONS
23 ATTRACTING MISSILES
24 CONTROLLING SEEKING WEAPONS
25 IDENTIFYING MISSILES
26 DETECTING MINES
27 GATHERING SCIENCE INFORMATION
28 SELF-PROTECTION JAMMING
29 TACTICAL INTELLGENCE

WARP ENERGY MOVEMENT COST • 3/4 ENERGY POINT PER HEX [5] • HET COST ⑥ • ERRATIC MANEUVER WARP COST

SPEED	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
Standard	1	2	3	3	4	5	6	6	7	8	9	9	10	11	12	12	13	14	15	15	16	17	18	18	19	20	21	21	22	23
Fract	¾	1½	2¼	3	3¾	4½	5¼	6	6¾	7½	8¼	9	9¾	10½	11¼	12	12¾	13½	14¼	15	15¾	16½	17¼	18	18¾	19½	20¼	21	21¾	22½

KLUZZ TUG

CREW UNITS

10
20
30

ADMINISTRATIVE SHUTTLES

IDENT	HIT POINTS	NOTES

THIS SHIP HAS TWO SHUTTLE BAYS

BOARDING PARTIES 10

PROBES 5

TRANSPORTER BOMBS D D D D

SHIP DATA TABLE		
TYPE	=	TUG
POINT VALUE	=	155/105
BREAKDOWN	=	5-6
SHIELD COST	=	1+1
LIFE SUPPORT	=	1
SIZE CLASS	=	3
REFERENCE	=	R206.11
PLUS REFIT	=	+ 3

TYPE III DEFENSE PHASER

DIE ROLL	RANGE 0	1	2	3	4-8	9-15
1	4	4	4	3	1	1
2	4	4	4	2	1	0
3	4	4	4	1	0	0
4	4	4	3	0	0	0
5	4	3	2	0	0	0
6	3	3	1	0	0	0

TURN MODE W/O POD

TURN MODE		SPEED
B	1	2-5
	2	6-10
	3	11-15
HET	4	16-21
	5	22-28
BD	6	29+

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

TURN MODE W/ PODS

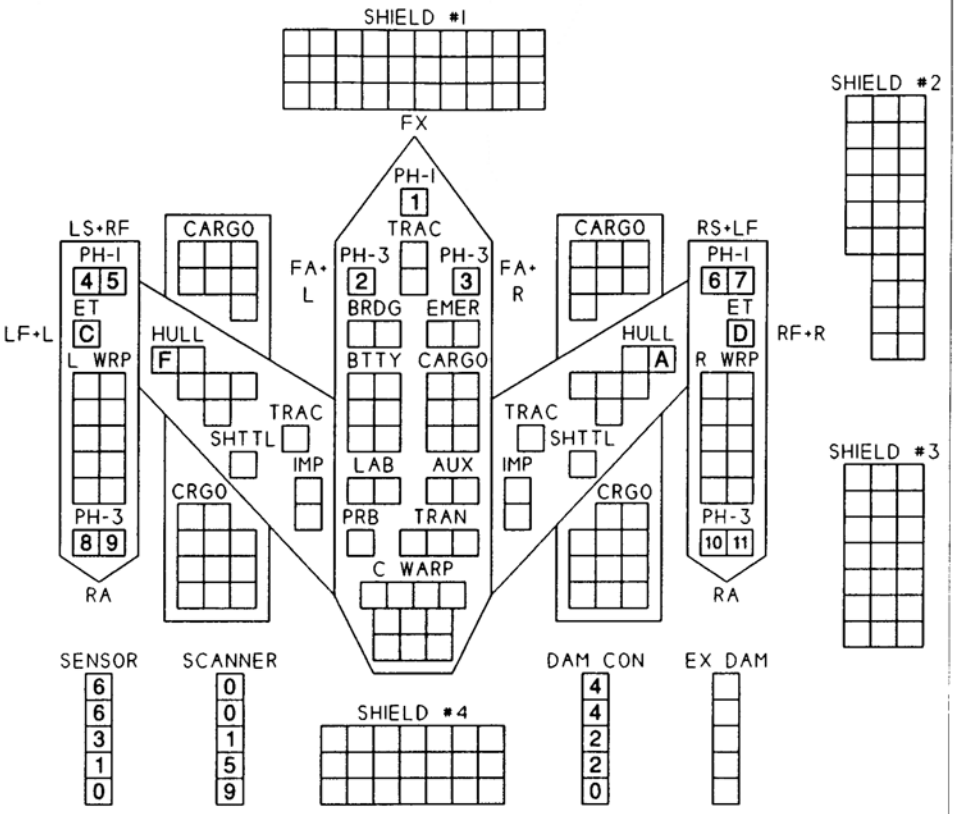
TURN MODE		SPEED
C	1	2-4
	2	5-9
	3	10-14
HET	4	15-20
	5	21-27
BD	6	28+

ENERGY TORPEDO WARHEAD STRENGTH TABLE

TIME	0-5	6-10	11-12	13-14	15	16-18	19	20
STANDARD	20	15	10	5	1	0	0	0
OVERLOAD	30	30	25	20	15	10	5	1

DISRUPTOR TABLE

RANGE	0	1	2	3-4	5-8	9-15	16-22	23-30
HIT (STD)	NA	1-5	1-5	1-4	1-4	1-4	1-3	1-2
HIT (OVERLOAD)	1-6	1-5	1-5	1-4	1-4	NA	NA	NA
DAMAGE, STD	0	5	4	4	3	3	2	2
DAMAGE, OVLD	10	10	8	8	6	0	0	0



SHADED BOXES ARE PRESENT ON THE PLUS REFIT

FA - LF + RF
RA - LR + RR
FX - L + LF + RF + R
LS - LF + L + LR
RS - RF + R + RR

MOVEMENT COST W/ PODS - 1 1/2
MOVEMENT COST W/O PODS - 1
HET COST W/O PODS - 5
EM COST W/O PODS - 6

WARP ENERGY MOVEMENT COST - 1 1/2 ENERGY POINT PER HEX [5] - HET COST ⑥ - ERRATIC MANEUVER WARP COST

SPEED	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
Standard	2	3	5	6	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	42	44	45
Fract	1 ½	3	4 ½	6	7 ½	9	10 ½	12	13 ½	15	16 ½	18	19 ½	21	22 ½	24	25 ½	27	28 ½	30	31 ½	33	34 ½	36	37 ½	39	40 ½	42	43 ½	45